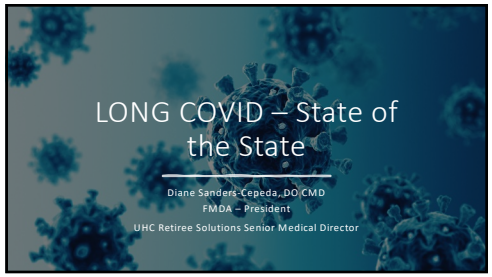
1

Long COVID Summit Agenda

2

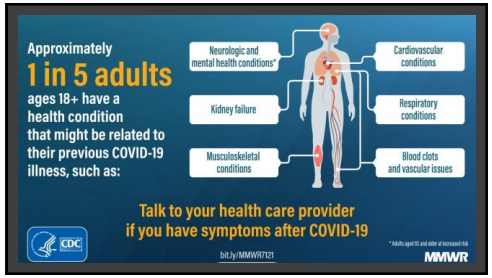


3

Speaker's Disclosure

Dr. Sanders-Cepeda - UnitedHealthcare Full – time Employee

4



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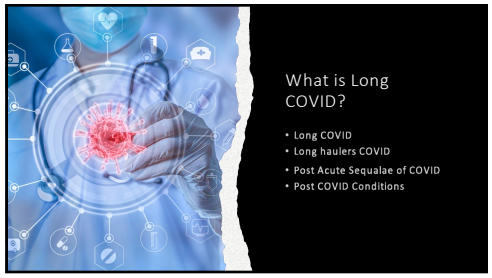

6

World Health Organization

Health Topics | Countries | Newsroom | Emergencies | Data

Home / Publications / Overview / A clinical case definition of post COVID-19 condition by a Delphi consensus, 6 October 2021

A clinical case definition of post COVID-19 condition by a Delphi consensus, 6 October 2021

6 October 2021 | COVID-19: Clinical care

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Post Acute Sequlae of COVID (PASC) WHO definition

- History of probable or confirmed COVID - 19 infection
- Symptoms 3 months from the onset of COVID
- Lasting for at least 2 months
- Symptoms that cannot be explained by an alternative diagnosis

8

COVID-19: Lasting impact

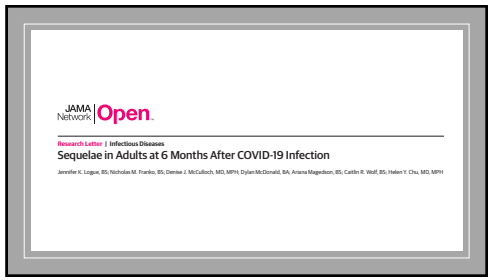
Even those survivors with mild initial cases can have wide-ranging health issues for six months or more.

WashU researchers link many diseases with COVID-19, signaling long-term complications for patients and a massive health burden for years to come.

- **Cardiovascular** acute coronary disease, heart failure, palpitations, arrythmias
- **Respiratory system** cough, shortness of breath, low blood oxygen
- **Kidney** acute kidney injury, chronic kidney disease
- **Musculoskeletal** joint pain, muscle weakness
- **General** malaise, fatigue, anemia
- **Mental health** anxiety, depression, sleep problems, substance abuse
- **Nervous system** stroke, headaches, memory problems, smell problems
- **Metabolic/ endocrine** obesity, diabetes, high cholesterol
- **Gastrointestinal** constipation, diarrhea, acid reflux
- **Skin disorders** hair loss, rash
- **Coagulation disorders** blood clots

9

10



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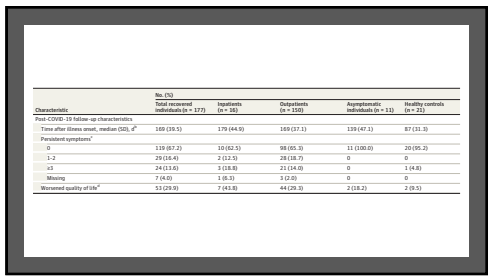


Characteristic	No. (%)				
	Total recovered individuals (n = 177)	Inpatients (n = 16)	Outpatients (n = 150)	Asymptomatic individuals (n = 11)	Healthy controls (n = 21)
Post-COVID-19 follow-up characteristics					
Time after illness onset, median (SD), d[a]	169 (16.5)	179 (44.9)	169 (17.1)	159 (47.1)	87 (31.3)
Persistent symptoms[b]					
0	119 (67.2)	10 (62.5)	98 (65.3)	11 (100.0)	20 (95.2)
1-2	29 (16.4)	2 (12.5)	28 (18.7)	0	0
≥3	24 (13.6)	3 (18.8)	21 (14.0)	0	1 (4.8)
Missing	7 (4.0)	1 (6.3)	3 (2.0)	0	0
Worsened quality of life[c]	53 (29.9)	7 (43.8)	44 (29.3)	2 (18.2)	2 (9.5)

12

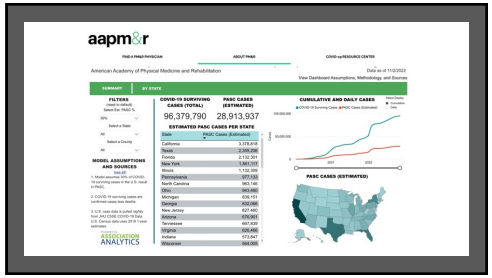
aapm&r

American Academy of Physical Medicine and Rehabilitation

MARCH 18, 2021 NEWS RELEASE

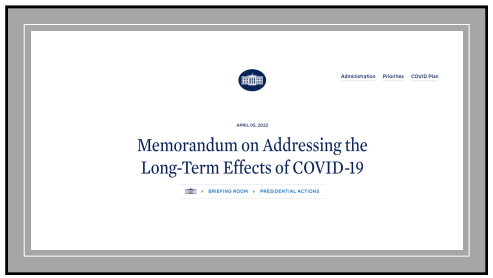
President Biden And Congress Urged to Prepare and Implement National Crisis Management Plan to Address Needs of Millions Suffering from Long COVID

13

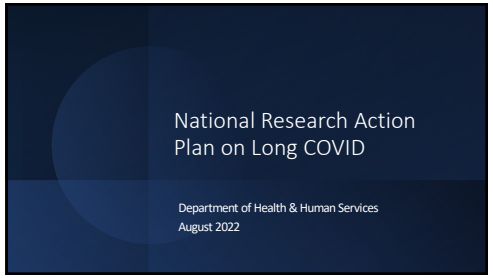


14

15


Administration Priorities COVID Plan
APRIL 05, 2022
Memorandum on Addressing the Long-Term Effects of COVID-19
BRIEFING ROOM › PRESIDENTIAL ACTIONS

16


National Research Action Plan on Long COVID
Department of Health & Human Services
August 2022

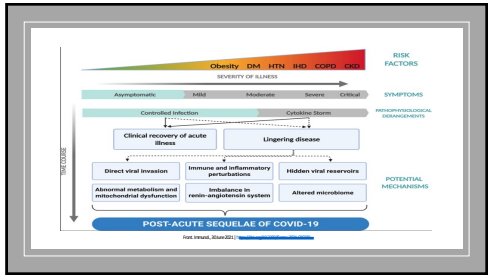
17


Priorities align across Seven Research Areas
1. Characterizing the Full Clinical Spectrum of Long COVID and Diagnostic Strategies
2. Pathophysiology
3. Surveillance and Epidemiology
4. Long COVID and Overall Well-Being
5. Therapeutics and other Health interventions
6. Human Services, Supports, and Interventions
7. Health Services and Health Economics Research

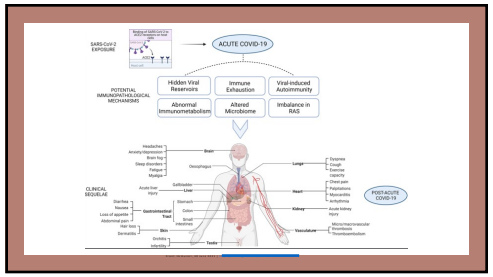
18


Research
Moving
Forward…

19


Obesity DM HTN IHD COPD CKD
RISK FACTORS
SEVERITY OF ILLNESS
Asymptomatic Mild Moderate Severe Critical
SYMPTOMS
Controlled Infection
Cytokine Storm
PATHOPHYSIOLOGICAL DERANGEMENTS
TIME COURSE
Clinical recovery of acute illness
Lingering disease
Direct viral invasion
Immune and inflammatory perturbations
Hidden viral reservoirs
Abnormal metabolism and mitochondrial dysfunction
Imbalance in renin-angiotensin system
Altered microbiome
POTENTIAL MECHANISMS
POST-ACUTE SEQUELAE OF COVID-19

20


SARS-CoV-2 EXPOSURE
ACUTE COVID-19
POTENTIAL IMMUNOPATHOLOGICAL MECHANISMS
Hidden Viral Reservoirs
Immune Exhaustion
Viral-Induced Autoimmunity
Abnormal Immunometabolism
Altered Microbiome
Imbalance in RAS
CLINICAL SEQUELAE
POST-ACUTE COVID-19

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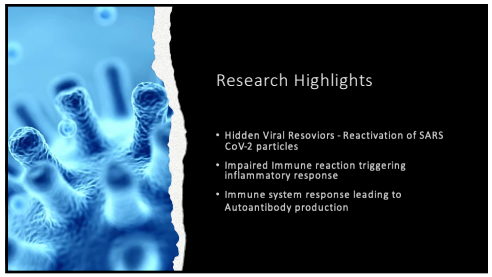
RECOVER
RECOVER: Researching COVID to Enhance Recovery
The National Institutes of Health (NIH) created the RECOVER Initiative to learn about the long-term effects of COVID.
Everyone can join the search for answers to Long COVID. Whether or not you have had COVID, you may be able to participate in RECOVER research.
FIND A STUDY SITE NEAR YOU
RECOVER research aims to understand how people recover from a COVID infection, and why some people do not fully recover and develop Long COVID or PASC (post-acute sequelae of SARS-CoV-2). Long COVID is when people have symptoms weeks or months after they first had COVID.

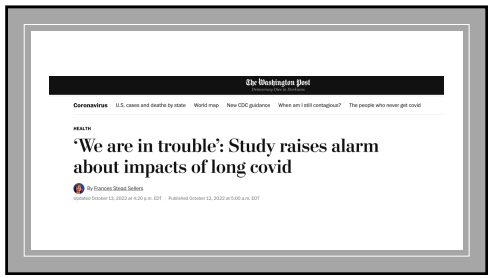
22


RECOVER
Researching COVID to Enhance Recovery
RECOVER program takes first steps in advancing toward clinical trials to better understand Long COVID

23


Research Highlights
• Hidden Viral Resoviors - Reactivation of SARS CoV-2 particles
• Impaired Immune reaction triggering inflammatory response
• Immune system response leading to Autoantibody production

24



The Washington Post

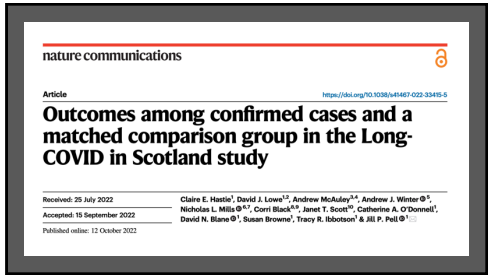
Coronavirus U.S. cases and deaths by state World map New CDC guidance When am I still contagious? The people who never get covid

HEALTH

'We are in trouble': Study raises alarm about impacts of long covid

By Frances Stead Sellers

25



nature communications

Article

https://doi.org/10.1038/s41467-022-33415-5

Outcomes among confirmed cases and a matched comparison group in the Long-COVID in Scotland study

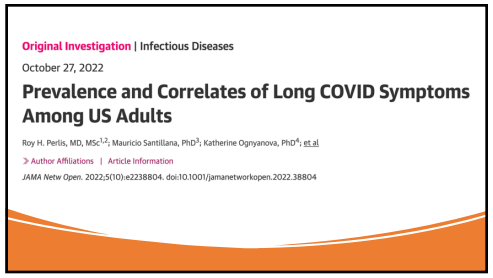
Received: 25 July 2022

Accepted: 15 September 2022

Published online: 12 October 2022

Claire E. Hastie[1], David J. Lowe[1,2], Andrew McAuley[3,4], Andrew J. Winter[5], Nicholas L. Mills[6,7], Corri Black[8,9], Janet T. Scott[10], Catherine A. O'Donnell[1], David N. Blane[1], Susan Browne[1], Tracy R. Ibbotson[1] & Jill P. Pell[1]

26



Original Investigation | Infectious Diseases

October 27, 2022

Prevalence and Correlates of Long COVID Symptoms Among US Adults

Roy H. Perlis, MD, MSc[1,2]; Mauricio Santillana, PhD[3]; Katherine Ognyanova, PhD[4]; et al

Author Affiliations | Article Information

JAMA Netw Open. 2022;5(10):e2238804. doi:10.1001/jamanetworkopen.2022.38804

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Key Findings – JAMA LONG COVID Prevalence Study 10-2022

Sociodemographic features

- Age > 40 and female gender– higher prevelance
- Urban environment and Higher level of education – lower prevalence

Most Common Lingering Symptoms

- Fatigue
- Loss of Smell
- Brain Fog
- Shortness of Breath

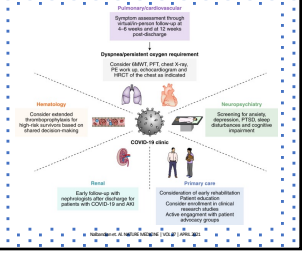
28

Managing Long COVID

Post-COVID Clinics

29

Post COVID Clinic Model



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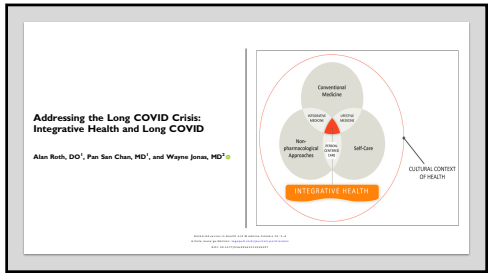
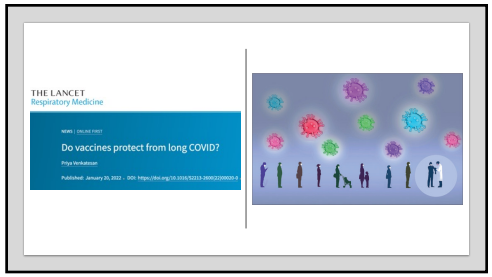

Addressing the Long COVID Crisis: Integrative Health and Long COVID
Alan Roth, DO[1], Pan San Chan, MD[1], and Wayne Jonas, MD[2]
Conventional Medicine
Non-pharmacological Approaches
Self-Care
INTEGRATIVE HEALTH
CULTURAL CONTEXT OF HEALTH

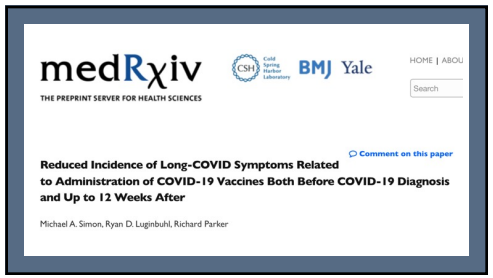
31


Thinking about treatment

32


THE LANCET
Respiratory Medicine
Do vaccines protect from long COVID?
Priya Venkatesan

33


medRxiv
THE PREPRINT SERVER FOR HEALTH SCIENCES
BMJ Yale
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Comment on this paper
Reduced Incidence of Long-COVID Symptoms Related to Administration of COVID-19 Vaccines Both Before COVID-19 Diagnosis and Up to 12 Weeks After
Michael A. Simon, Ryan D. Luginbuhl, Richard Parker

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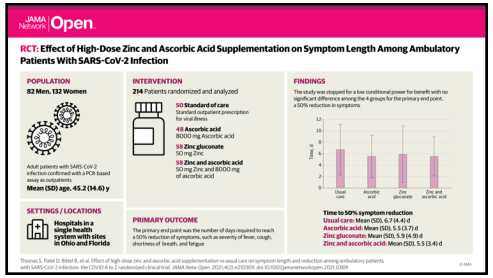
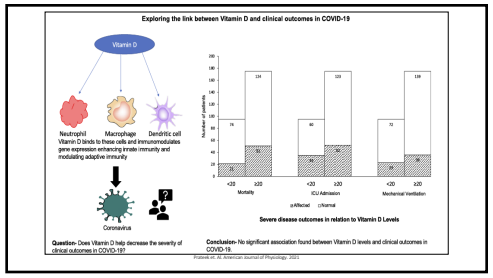

JAMA Network Open
RCT: Effect of High-Dose Zinc and Ascorbic Acid Supplementation on Symptom Length Among Ambulatory Patients With SARS-CoV-2 Infection
POPULATION
82 Men, 132 Women
Adult patients with SARS-CoV-2 infection confirmed with a PCR based assay as outpatients
Mean (SD) age, 45.2 (14.6) y
INTERVENTION
214 Patients randomized and analyzed
50 Standard of care
Standard outpatient prescription for viral illness
48 Ascorbic acid
8000 mg Ascorbic acid
58 Zinc gluconate
50 mg Zinc
58 Zinc and ascorbic acid
50 mg Zinc and 8000 mg of ascorbic acid
FINDINGS
The study was stopped for a low conditional power for benefit with no significant difference among the 4 groups for the primary end point, a 50% reduction in symptoms
Time to 50% symptom reduction
Usual care: Mean (SD), 6.7 (4.4) d
Ascorbic acid: Mean (SD), 5.5 (3.7) d
Zinc gluconate: Mean (SD), 5.9 (4.9) d
Zinc and ascorbic acid: Mean (SD), 5.5 (3.4) d
SETTINGS / LOCATIONS
Hospitals in a single health system with sites in Ohio and Florida
PRIMARY OUTCOME
The primary end point was the number of days required to reach a 50% reduction of symptoms, such as severity of fever, cough, shortness of breath, and fatigue

35


Exploring the link between Vitamin D and clinical outcomes in COVID-19
Vitamin D
Neutrophil
Macrophage
Dendritic cell
Vitamin D binds to these cells and immunomodulates gene expression enhancing innate immunity and modulating adaptive immunity
Coronavirus
Question- Does Vitamin D help decrease the severity of clinical outcomes in COVID-19?
Number of patients
Mortality
ICU Admission
Mechanical Ventilation
Affected
Normal
Severe disease outcomes in relation to Vitamin D Levels
Conclusion- No significant association found between Vitamin D levels and clinical outcomes in COVID-19.

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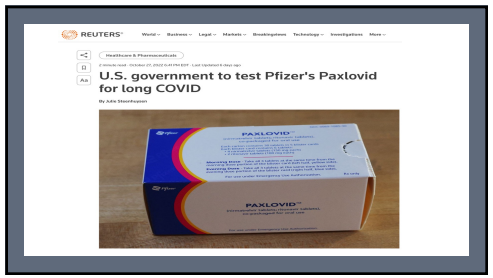
REUTERS
U.S. government to test Pfizer's Paxlovid for long COVID
PAXLOVID
PAXLOVID

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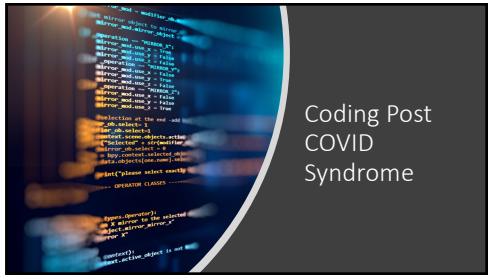
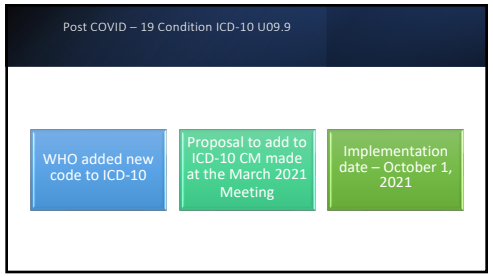

Coding Post COVID Syndrome

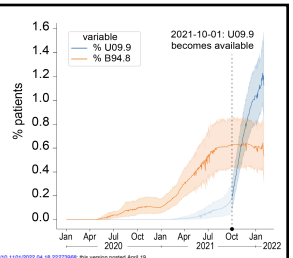
38


Post COVID – 19 Condition ICD-10 U09.9
WHO added new code to ICD-10
Proposal to add to ICD-10 CM made at the March 2021 Meeting
Implementation date – October 1, 2021

39

Transitioning to U09.9

- B94.8 - Sequelae of other specified infectious and parasitic diseases
- U09.9 – Post COVID Conditions



https://doi.org/10.1101/2022.04.18.22273468; this version posted April 19, 2022

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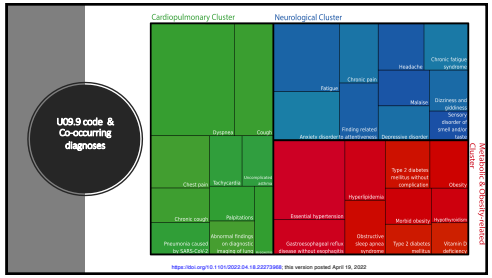

https://doi.org/10.1101/2022.04.18.22273468; this version posted April 19, 2022

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POST COVID Syndrome Symptoms

- **Fatigue**
- **Difficulty thinking or concentrating**
  - *sometimes referred to as "brain fog"*
- **Difficulty breathing**
  - *with and without abnormal imaging and pulmonary function testing*
- **Cough**
- **Painful joints** or **muscles**
- **Chest pain**
- **Depression** or **anxiety**
- **Headache**
- **Fever**
- **Palpitations**
- **Loss of smell** or **taste**
- **Dizziness on standing**
- *Rashes*
- *Hair Loss*
- *Lesions on Toes " COVID TOES"*

Code presenting symptom first, then code Post COVID condition

42

Example: Coding Post COVID Condition

Add **U09 Post COVID-19 condition**

Add **U09.9 Post COVID-19 condition, unspecified**

Add **Note:** This code enables establishment of a link with COVID-19.
Add This code is not to be used in cases that are still presenting with active COVID-19.
However, an exception is made in cases of re-infection with COVID-19, occurring with a condition related to prior COVID-19.
Post-acute sequela of COVID-19

Add **Code first** the specific condition related to COVID-19 if known, such as:
Add chronic respiratory failure (J96.1-)
Add loss of smell (R43.8)
Add loss of taste (R43.8)
Add multisystem inflammatory syndrome (M35.81)
Add pulmonary embolism (I26.-)
Add pulmonary fibrosis (J84.10)

43

Example: Coding Post COVID Condition

CODE The Presenting Condition first

Patient with Fatigue 2 months after COVID infection

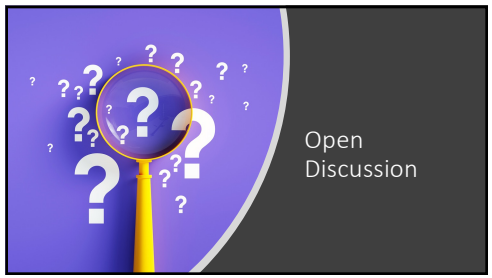
You will code R53.8 first

Then add Post COVID Condition code

Then, You will code U09.9

44

45



46

FMDA
Florida Society for Post-Acute and Long-Term Care Medicine

Healing Challenges Associated with COVID-19 Skin and Long-Haulers

Presenter

Pamela Scarborough
PT, DPT, CWS, FAAWC
Vice President of Clinical Affairs
AMT/Restorix Health

1

OBJECTIVES

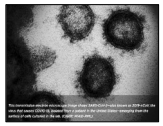
At the end of this presentation participants should be able to:

1. Recognize that COVID-19 causes multiple and varied skin manifestations;
2. Relate some of the COVID-19 skin disruptions to other skin manifestations that look similar to, but are NOT COVID-19 skin issues;
3. Discuss COVID-19 disease potential effects on unavoidable wounds and delayed wound healing outcomes.

2

COVID-19 EPIDEMIC

- COVID-19 pandemic caused by SARS-CoV-2
  - Primarily triggers respiratory tract infections
  - Affects upper or lower respiratory tracts
  - Spreads same way other coronaviruses do
  - Mainly through person-to-person contact
  - Infections range from mild, moderate to severe to deadly outcomes



- Originally thought to be only respiratory disease
- Current research demonstrates significant extrapulmonary involvement
- **New variants** appear to cause less pulmonary involvement for most people

3

CYTOKINE STORM & COVID-19

- Cytokines are part of immune system
- Causes acute hyperinflammatory response
- Immune cells spread beyond infected body parts
- Inflammatory response to infection
  - Attacks healthy tissues
  - Causes blood clots
    - Coagulopathy
      - Creates decreased blood flow to organs
- Skin is largest organ
- Blood flow and inflammatory processes often manifest on skin and mucous membranes

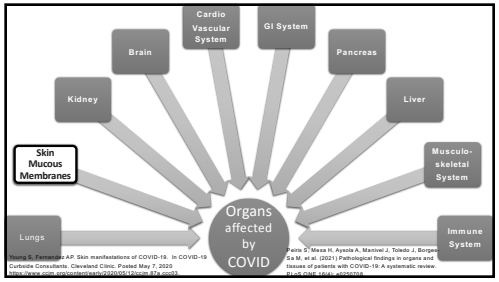
4

PRIMARY SYMPTOMS OF COVID-19

- Fever (low, high, none)
- Coughing
- Shortness of breath
- Trouble breathing
- Fatigue
- Chills
- Body/muscle aches
- Headache
- Sore throat
- Loss of smell or taste
- Nausea
- Diarrhea
- Asymptomatic

Silent symptoms of COVID-19 include skin and mucocutaneous symptoms

5



Nouri S, Fernandez AP. Skin manifestations of COVID-19. In COVID-19 Curbside Consultants. Cleveland Clinic. Posted May 7, 2020 https://www.ccim.org/content/early/2020/05/12/ccim.87a.ccc02

Paiva IF, Mesa H, Ayoola A, Manivel J, Toledo J, Borges da M, et al. (2021) Pathological findings in organs and tissues of patients with COVID-19: A systematic review. PLoS ONE 16(4): e0250708.

6

LONG COVID NOMENCLATURE

- Post-acute sequelae of SARS-CoV-2 (PASC)-new formal name
- Post-COVID Syndrome (PCS)
- Long COVID
- COVID Long Haulers

7

7

POST-ACUTE SEQUELAE OF SARS-COV2 INFECTION

- Described by WHO as persistence of symptoms or new symptoms more than 30 days post-SARS-CoV-2 infection
- CDC: 4 or more weeks after infection
- British NIH and Care Excellence (NICE): 12-weeks during or after infection; not explained by alternative diagnosis
- These longer effects of COVID-19 are actively being investigated and defined
- Clinical definition and understanding of underlying mechanisms of Long COVID are still in flux

8

8

POST-ACUTE SEQUELAE OF SARS-COV2 INFECTION

- Lingering symptoms may persist months and in some cases years after the acute infection
- ICD-10 CM code for "post COVID-19 condition, unspecified"=U09.9
- Deployment of an ICD-10-CM code in US took nearly 2 years **after patients began describing their symptoms**
- Countries around the world are all dealing with Post COVID in their populations

Pfaff ER, Madlock-Brown C, Baratta JM, et al. Coding Long COVID: Characterizing a new disease through an ICD-10 lens. Preprint. *medRxiv*. 2022;2022.04.18.22273968. Published 2022 Sep 2. doi:10.1101/2022.04.18.22273968

9

9

POST-ACUTE SEQUELAE OF COIVID: FACTS OVERVIEW

- Legacy of acute SARS-CoV-2 infection, affecting over 10-69% of patients with different signs and symptoms across a wide range of organs and systems.
- Most frequent manifestations of PASC, compromised lung functions, neurocognitive alterations; alterations of cardiovascular functions and increased risk of acute cardiac events; and fatigue.
- SARS-CoV-2 virus seeds and persists in different organs and tissues.
- Pathogenesis of PASC is multifactorial and includes:
  - Virus seeding and persistence in different organs; activation and response to unrelated viruses (e.g., EBV); autoimmunity; uncontrolled inflammation.
- Biomarkers of clinical PASC include levels of IgG, cytokines, chemokines, PTX3, and interferons.

- Mantovani, A., Morrone, M.C., Patrono, C. *et al.* Long Covid: where we stand and challenges ahead. *Cell Death Differ* **29**, 1891–1900 (2022).
- Su Y, Yuan D, Chen DG, et al. Multiple early factors anticipate post-acute COVID-19 sequelae. *Cell.* 2022;185(5):881-895.e20. doi:10.1016/j.cell.2022.01.014

10

POTENTIAL CONTRIBUTORS TO PASC SYMPTOMS

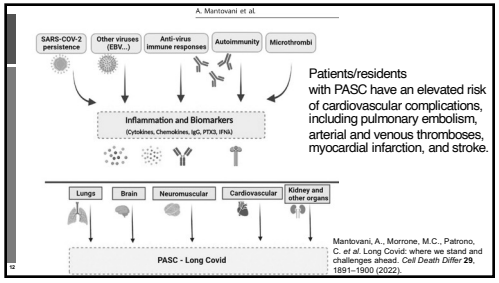
Include consequences from acute SARS-CoV-2:

- Injury to one or multiple organs,
- Persistent reservoirs of SARS-CoV-2 in certain tissues,
- Re-activation of neurotrophic pathogens such as herpesviruses under conditions of COVID-19 immune dysregulation,
- SARS-CoV-2 interactions with host microbiome/virome communities,
- Clotting/coagulation issues,
- Dysfunctional brainstem/vagus nerve signaling,
- Ongoing activity of primed immune cells,
- Autoimmunity due to molecular mimicry between pathogen and host proteins.

The individualized nature of PASC symptoms suggests that different therapeutic approaches may be required to best manage care for specific patients with the diagnosis.

Edward Galaid, MD, RSFH Medical Director of Occupational Medicine. Roper St. Francis Healthcare. Management of Post-Acute Sequelae of SARS-CoV-Infections. https://www.youtube.com/watch?v=wZaeQ6GDUto. YouTube Accessed 10/30/22.

11



Patients/residents with PASC have an elevated risk of cardiovascular complications, including pulmonary embolism, arterial and venous thromboses, myocardial infarction, and stroke.

Mantovani, A., Morrone, M.C., Patrono, C. *et al.* Long Covid: where we stand and challenges ahead. *Cell Death Differ* **29**, 1891–1900 (2022).

12

LONG COVID = POST-ACUTE SEQUELAE OF SARS-COV-2 (PASC)

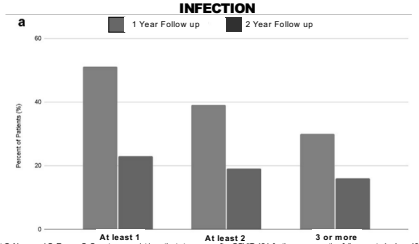
- Research indicated an ongoing, sustained inflammatory response following mild, moderate, and severe SARS-CoV-2 infections
- *"We can show that the macrophages from people with mild COVID-19 exhibit an altered inflammatory and metabolic expression for three to five months post-infection,"*
- *"Even though the majority of these people did not have any persistent symptoms, their immune system was more sensitive than that of their healthy counterparts."*

Hetsouphanh, C., Darley, D.R., Wilson, D.B. *et al.* Immunological dysfunction persists for 8 months following initial mild-to-moderate SARS-CoV-2 infection. *Nat Immunol* **23**, 210–216 (2022).

13

13

TOTAL NUMBER OF PERSISTENT SYMPTOMS AFTER COVID-19 INFECTION



Millet C, Narvaneni S, Roman S. Symptoms persist in patients two years after COVID-19 infection: a prospective follow-up study. June 16, 2022. Clin Microbiology and Infection/ European Society of Clinical Microbiology and Infectious Diseases. Accessed 10/28/22

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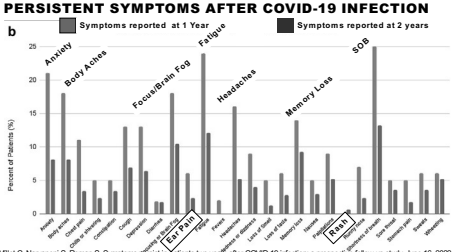
14

PERSISTENT SYMPTOMS AFTER COVID-19 INFECTION



Millet C, Narvaneni S, Roman S. Symptoms persist in patients two years after COVID-19 infection: a prospective follow-up study. June 16, 2022. Clin Microbiology and Infection/ European Society of Clinical Microbiology and Infectious Diseases. Accessed 10/28/22

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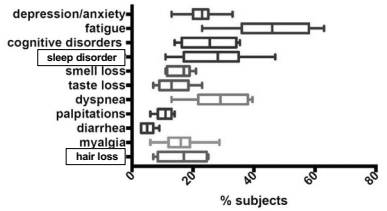
15

FREQUENCY OF MOST COMMON SYMPTOMS 4-WEEKS OR MORE AFTER ACUTE COVID-19 INFECTION



Mantovani, A., Morrone, M.C., Patrono, C. *et al.* Long Covid: where we stand and challenges ahead. *Cell Death Differ* **29**, 1891–1900 (2022).

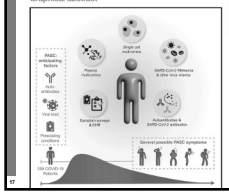
16

Cell

Article

Multiple early factors anticipate post-acute COVID-19 sequelae

Graphical abstract



Authors

Yapeng Su, Dan Yuan, Daniel G. Chen, ..., Mark M. Davis, Jason D. Goldman, James R. Heath

- Longitudinal multi-omics associate PASC with autoantibodies, viremia, and comorbidities
- Reactivation of latent viruses during initial infection may contribute to PASC
- Subclinical auto-antibodies negatively correlate with anti-SARS-CoV-2 antibodies
- Gastrointestinal PASC uniquely present with post-acute expansion of cytotoxic T cells

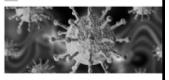
17

COVID-19
Skin Manifestations

18

INITIAL COVID SKIN MANIFESTATIONS RECOGNITION IN HEALTHCARE

COVID-19 DERMATOLOGY REGISTRY



- April 2020 International League of Dermatological Societies and American Academy of Dermatology established international registry for COVID-19 dermatological manifestations
- At the same time, clinicians in LTC facilities reporting skin manifestations that looked like pressure injuries, but were NOT related to pressure
- Also, anecdotally, residents with wounds that HAD been improving began to stall or get worse after surviving COVID-19
- April 2020 the journey to learn about COVID skin manifestations began

https://www.aad.org/member/practice/coronavirus/registry

Mantovani, A., Morrone, M.C., Patrono, C. *et al.* Long Covid: where we stand and challenges ahead. *Cell Death Differ* **29**, 1891–1900 (2022).

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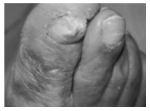
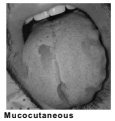
WHY IS KNOWLEDGE REGARDING COVID-19 SKIN SYMPTOMS IMPORTANT?

- Early detection of skin and mucosal symptoms can assist with early diagnosis of COVID-19

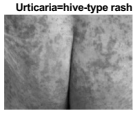
Urticaria=hive-type rash



Psuedo-chilblain Acral Lesion



Mucocutaneous



Livedoid/Necrotic lesions

Attribution: British Journal of Dermatology

20

20

HOW DOES SARS-COV-2 VIRUS INFECT THE SKIN?

Direct Infection of Endothelial Cells	**Indirect** Infection of Endothelial Cells
• Small blood vessels in skin are targets for SARS-CoV-2 • Lymphocyte skin infiltration in patients with COVID-19 • Evidence that virus enters skin through blood vessels after systemic infection	• Superficial layers of skin prevent viral entry with normal conditions • Skin disruptions (e.g., wounds) • May allow contamination of underlying tissues

Khezri, Mohammad Rafi; Ghasemnejad-Berenji, Morteza PhD; Jafari, Reza PhD Skin Tissue: A Place for SARS-CoV-2 to Multiply and Transmit?, Advances in Skin & Wound Care: October 2021 - Volume 34 - Issue 10 - p 513-514

21

SARS-CoV-2 VARIANTS SURVIVAL ON SKIN

- Researchers found different variants of virus survive on skin of cadavers for differing durations:
- Original version of SARS-CoV-2 survives for 8.6 hours
- Alpha variant survives for 19.6 hours
- Beta variant survives for 19.1 hours
- Gamma variant survives for 11 hours
- Delta variant survives for 16.8 hours
- Omicron variant again outlasts the other variants, surviving for 21.1 hours

Differences in environmental stability among SARS-CoV-2 variants of concern: Omicron has higher stability. Hirose R, Itoh, Y, Ikegaya H, Miyazaki H, et.al. bioRxiv 2022.01.18.476607; doi: https://doi.org/10.1101/2022.01.18.476607 Accessed 3/11/22

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CLASSIFICATION OF HISTOPATHOLOGICAL FINDING IN THE SKIN OF COVID-19 CASES

• Endothelial Injury	Endotheliitis
• Coagulopathy associated abnormalities	Petechiae Dermal necrosis Dermo-hypodermal/superficial thrombi Deep dermis thrombi
• Vasculitis	Livedo Purpura Subcutaneous lymphocytic vasculitis Lymphocytic infiltration of vessels
• Possible cytopathic effects	Intranuclear viral inclusions Multinucleated cells Intraepidermal vesicle Dyskeratosis Necrotic keratinocytes

Pathological findings in organs and tissues of patients with COVID-19: A systematic review
Crossref DOI link: https://doi.org/10.1371/JOURNAL.PONE.0250708; 4/28/21. Accessed 3/11/22

23

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NON-SPECIFIC FINDINGS ASSOCIATED WITH SKIN INFLAMMATION (DERMATITIS)

- Exocytosis
- Spongiosis
- Acantholysis
- Vesicles
- Suprabasal clefts
- Dermal edema
- Vascular ectasia
- Dermal mucin
- Dermal eosinophils
- Superficial dermal inflammatory infiltrates
- Perivascular deep inflammation
- Peri-eccrine inflammation
- Lymphocytic panniculitis
- Parakeratosis

Pathological findings in organs and tissues of patients with COVID-19: A systematic review
Crossref DOI link: https://doi.org/10.1371/JOURNAL.PONE.0250708; 4/28/21. Accessed 3/11/22

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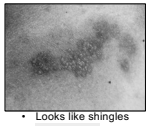
SKIN RASHES PREDICTIVE SYMPTOM OF COVID-19

- Virus causes wide variety of skin symptoms
- These skin changes may have diagnostic value for SARS-CoV-2 infections
- Support studies suggest that skin rash may be predictive symptom of COVID-19 infection

In nine percent of cases, dermatologists identified outbreaks of small blisters, commonly itchy, that appeared on the trunk of the body



- Looks like shingles
- **Is COVID-19**

Bataille V, Visconti A, Rossi N, Murray B et. al. Diagnostic value of skin manifestations of SARS-CoV-2 infection.
Young S, Fernandez AP. Skin manifestations of COVID-19. In COVID-19 Curbside Consultants. Cleveland Clinic. Posted May 7, 2020.

25

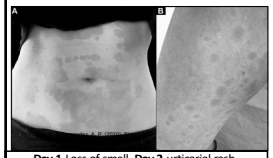
WHAT IS THE DIAGNOSTIC VALUE OF NEW SKIN RASHES IN SARS-COV-2 INFECTION?

- Study. 336,847 UK users of the COVID Symptom Study app
- Results:
  - 8.8% (~30,000 patients) positive SARS-CoV-2 viral swab, reported a skin eruption
- Skin symptoms first: **15% – 17%**
- Skin symptoms during illness: **47%**
- Skin symptoms after illness: **35% – 39%**
- Skin symptoms only: **21%**
- This site has a large library of high-quality photos: https://covidskinsigns.com

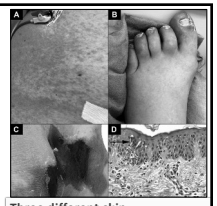
Attribution:
• British Association of Dermatologists

26

COVID-19 Cutaneous Manifestations



Day 1-Loss of smell, **Day 2**-urticarial rash, **Day 3**-onset of fever

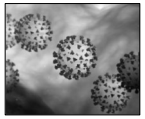


Three different skin manifestations in same patient.

Galván Casas, C., Catalá, A., Carretero Hernández, G., Rodríguez-Jiménez, P., Fernández-Nieto, D., Rodríguez-Villa Lario, A., ... & García-Gavín, J. (2020). Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. British Journal of Dermatology, 183(1), 71-77.

27

True Incidence of COVID-19 Related Skin Injuries Currently Unknown



- Many of the skin changes mimic known dermatologic disorders including pressure injuries, Kennedy Terminal Ulcer, and arterial insufficiency wounds

28

COVID-19 Skin Manifestations

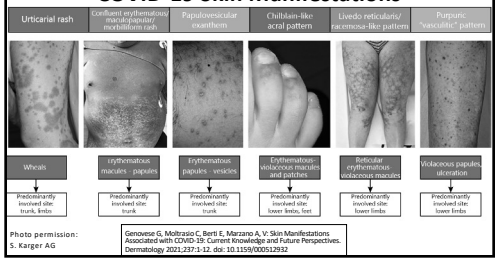


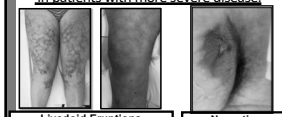
Photo permission: S. Karger AG

Genovese G, Moltrasio C, Berti E, Marzano A, V: Skin Manifestations Associated with COVID-19: Current Knowledge and Future Perspectives. Dermatology 2021;237:1-12. doi: 10.1159/000512932

29

COVID-19 Cutaneous Manifestations

- Report categorized skin findings in patients with suspected and confirmed COVID-19
- Livedoid and necrotic eruptions, which were noted in patients with more severe disease.



Livedoid Eruptions
Light Skin Skin of Color

Necrotic Eruptions

Galván Casas, C., Catalá, A. C. H. G., Carretero Hernández, G., Rodríguez-Jiménez, P., Fernández-Nieto, D., Rodríguez-Villa Lario, A., ... & García-Gavín, J. (2020). Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. British Journal of Dermatology, 183(1), 71-77.

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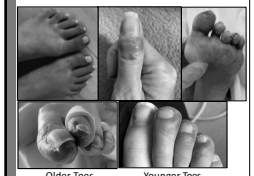
CHILBLAIN-LIKE SYMPTOMS (COVID TOES)



Older Toes Younger Toes

- Acral lesions
- Affect hands and/or feet
- Red-purple discolored skin-light skin
- Darker skin tones in skin of color
- Can be painful and itchy
- Sometimes small blisters or pustules
- Appear late in disease
- Seen more often in children & young adults
- Reported in older adults too – same process?
- Appear to be result of hypercoagulation
- May lead to gangrene/amputations

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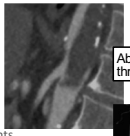
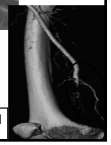
ACUTE LIMB ISCHEMIA AND COVID-19

- SARS-CoV-2 causes proinflammatory status (cytokine storm) with endothelial involvement
- Venous and arterial thrombosis
- Causing major vascular events such as acute arterial ischemia
- Anatomopathology of resected arterial segments
  - Inflammatory infiltrates & endothelial proliferations throughout arterial walls of aorta & femoropoliteal arteries
  - Resulted in amputation



Abdominal aortic thrombosis



Femoropoliteal thrombosis

Gonzalez CE, Gimenez G A, Rodriguez LL, Castro RJG, Martinez A, et al. Acute peripheral arterial thrombosis in COVID-19. Role of endothelial inflammation. Br J Surg. 2020 Sep;107(10):e444-e445.

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ACUTE LIMB ISCHEMIA AND COVID-19

- Seen in patients with severe disease who experienced significant lung damage and fibrosis
- Initial presentation may be in form of:
  - Chilblains
  - Bullae
  - Acral cyanosis
  - Bruising
  - Blood blisters
  - Dry gangrene
  - Life-threatening acute limb ischemia
- Any delay in diagnosis and/or treatment may lead to increased morbidity, including limb loss

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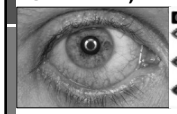
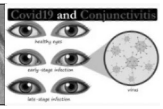
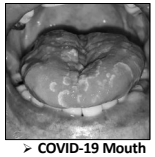
MUCOCUTANEOUS SYMPTOMS (EYES, TONGUE, GENITALIA) REPORTED





- COVID-19 Eye
- Secondary symptom in 3-15% of cases
- Self-limiting
- No ocular long-lasting complications reported

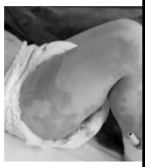


- COVID-19 Mouth

34

MULTISYSTEM INFLAMMATORY SYNDROME IN CHILDREN (MIS-C) AND ADULTS (MIS-A)

- Like MIS in children (MIS-C), MIS-A associated with COVID-19
- Don't know the exact causes MIS-A
- Appears the condition develops due to a dysfunctional immune response after having COVID-19
- Unclear why some people develop MIS-A and others don't
- Differences in immune system and genetics between individuals may play a role
- COVID-19 causes high levels of inflammation in the body
- This is often accompanied by respiratory distress
- MIS-A is different in that it doesn't always happen with respiratory symptoms
- Organ systems outside of lungs are often affected
- Care should be given in the hospital setting



Skin Manifestation Child with Multisystem Inflammatory Syndrome in Children MIS-C

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SYMPTOMS OF MULTISYSTEM INFLAMMATORY SYNDROME IN ADULTS (MIS-A)

Primary Clinical Criteria
- Severe cardiac illness
- Rash and mucocutaneous symptoms

Secondary Clinical Criteria
- New-onset neurologic signs and symptoms
- Shock or hypotension not attributable to medical therapy
- Abdominal pain, vomiting diarrhea
- Thrombocytopenia (platelets <150,000/mL)

https://www.cdc.gov/mis/mis-a.html

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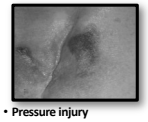
DIFFERENTIAL DIAGNOSIS

Deep Tissue Pressure Injury

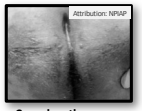


- Pressure injury
- Usually avoidable
- Deep: Bone/Muscle interface

Kennedy Terminal Ulcer Skin Failure

- Organ failure
- Unavoidable
- Superficial/Deep

COVID Skin Damage



- Coagulopathy
- Unavoidable
- Superficial

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OMICRON VARIANT SKIN SYMPTOMS

- Overall symptoms described as milder than earlier variants
- Symptoms similar to those of common cold in some people
- Omicron skin manifestations include:
  - Rashes
  - Dry lips
  - Grey/blue-tinged lips or nailbeds

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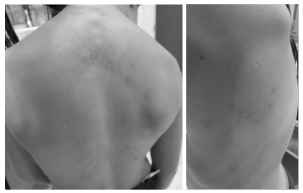
COVIC-19 RASH 1ST SYMPTOM IN 15 Y/0 JANUARY 2022 PCR POSITIVE FOR COVID-19 PROBABLY OMICRON VARIANT



- Skin manifestations reported with Omicron variant
- Similar to previous variants but fewer reports.

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SKIN & MUCOUS MEMBRANE SYMPTOMS REPORTED WITH OMICRON VARIANT

- Chilblain-acral lesions-fingers/toes
- Chapped or sore lips
- Xerostomia (dry mouth)
- Oral lesions
- COVID tongue
- Dry skin
- Other rash-like symptoms

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DOCUMENTATION BY PROVIDERS AND WOUND SPECIALISTS FOR COVID SKIN/WOUND HEALING ISSUES

Dr. Vycki Nalls, PhD, GNP-BC, ACHPN, CWS

- *"Wound healing: secondary effects from COVID-19 due to hypoxia, poor nutritional intake, and debility.*
- *Delayed wound healing expected due to these effects, and it would not be a surprise if the wound does not heal or declines further given patient's declining status."*

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ICD-10 DOCUMENTATION FOR DR. NALLS' PATIENT

- **L89.150 Pressure ulcer of sacral region, unstageable (HCC 158)**
  - Unstageable pressure injury to sacrum, with delayed wound healing due to co-morbid conditions of hypoxia, poor nutrition, debility, and overall decline from COVID-19 infection.
- **U07.1 COVID-19**
  - COVID positive patient with decline for aggressive management.
- **D68.8 Other specified coagulation defects (HCC 48)**
  - Coagulopathy due to COVID-19.

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ICD-10 CODES FOR COVID-DERMATOLOGIC MANIFESTATIONS

- **Use U07.1** as first diagnosis for patients with confirmed COVID-19.
- Add an additional diagnosis for pneumonia or other conditions, or symptoms.
- **D68.8** - is a specific ICD-10 code to indicate a diagnosis of other specified coagulation defect. COVID toes/fingers (acral lesions)
- **L99** - specifies a diagnosis of other disorders of skin and subcutaneous tissue in diseases classified elsewhere (rashes).

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COVID LONG-HAULERS AND THE SKIN

- Persistent morbidity noted in all systems of the body including skin
- **Urticarial and morbilliform** eruptions - short duration
- **Papulosquamous** eruptions, particularly **pernio** - longer-lasting
- American Academy of Dermatology data revealed previously unreported subset of patients who experience long-hauler symptoms in dermatology-dominant COVID-19
- Finding raises questions about persistent inflammation: even in patients who initially experienced relatively mild COVID-19
- More studies are needed to understand the long-hauler **dermatologic manifestations**

Carfì A, Bernabei R, Landi F, Gemelli Against C-P-ACSG. Persistent symptoms in patients after acute COVID-19. *JAMA* 2020; **324**: 603–05.
10. Puntmann VO, Carerj ML, Wieters I, et al. Outcomes of cardiovascular magnetic resonance imaging in patients recently recovered from coronavirus disease 2019 (COVID-19). *JAMA Cardiol* 2020; **5**: 1265–73.

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LESSONS FROM PRACTICE-COVID SKIN MANIFESTATIONS

- Patients with COVID-19 may present with unusual skin manifestations, including urticarial rashes, vesicular lesions, and chilblains on fingers or toes
- These skin and mucous membrane manifestations may be the first sign of COVID-19 disease
- Most cutaneous manifestations of COVID-19 are self-resolving.
- Where treatment is appropriate, medium or high-potency topical corticosteroids, oral antihistamines, or systemic corticosteroids are usually sufficient for symptomatic relief
- Coinciding drug therapy reactions are a possible confounding factor for cutaneous manifestations of COVID-19

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OPEN QUESTIONS REGARDING PASC AND COVID SKIN MANIFESTATIONS

- Occurrence, mechanism, and significance of SARS-CoV-2 persistence in different organs?
- Mechanisms, targets, and significance of autommune reactions?
- Role of other viruses?
- Impact of host genetics and microbiome?
- Actual impact of vaccination in people who get breakthrough infections and its duration?
- Occurrence and severity of PASC after infection with future variants?
- Preventive and therapeutic approaches?

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QUESTIONS
Comments

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Thank You!

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REFERENCES - PASC

- Mantovani, A., Morrone, M.C., Patrono, C. *et al.* Long Covid: where we stand and challenges ahead. *Cell Death Differ* **29**, 1891–1900 (2022).
- Peghin M, Palese A, Venturini M, De Martino. Post-COVID-19 symptoms 6 months after acute infection among hospitalized and non-hospitalized patients. Clinical Microbiology and Infection 27 (2021) 1507-1513.
- Carfì A, Bernabei R, Landi F, Gemelli Against C-P-ACSG. Persistent symptoms in patients after acute COVID-19. *JAMA* 2020; 324: 603–05.
- McDonald LT. Healing after COVID-19: are survivors at risk for pulmonary fibrosis? Am J Physiol Lung Cell Mol Physiol 320: L257–L265, 2021.
- McMahon DE, Gallman AE, Hruza GJ, Rosenbach M, Lipoff JB, Desai SR, et al. Long COVID in the skin: a registry analysis of COVID-19 dermatological duration. The Lancet/infection Vol 21 March 2021 313-314.
- Stefanie Deinhardt-Emmer, Daniel Wittschieber, Juliane Sanft, Sandra Kleemann, Stefan Elschner, Karoline Frieda Haupt, Vanessa Vau, Clio Häring, Jürgen Rödel, Andreas Henke, Christina Ehrhardt, Michael Bauer, Mike Philipp, Nikolaus Gaßler, Sandor Nietzsche, Bettina Löffler, Gita Mall. **Early postmortem mapping of SARS-CoV-2 RNA in patients with COVID-19 and the correlation with tissue damage**. *eLife*, 2021; 10 DOI: 10.7554/eLife.60361

49

REFERENCES - PASC

- Su Y, Yuan D, Chen DG, et al. Multiple early factors anticipate post-acute COVID-19 sequelae. *Cell*. 2022;185(5):881-895.e20. doi:10.1016/j.cell.2022.01.014Peiris S, Mesa H, Aysola A, Manivel J, Toledo J, Borges-Sa M, et al. (2021) Pathological findings in organs and tissues of patients with COVID-19: A systematic review. PLoS ONE 16(4):e0250708. https://doi.org/10.1371/journal.pone.0250708
- CDC.gov. Symptoms of Covid-19.
- Millet C, Narvaneni S, Roman S. Symptoms persist in patients two years after COVID-19 infection: a prospective follow-up study. June 16, 2022. Clin Microbiology and Infection/ European Society of Clinical Microbiology and Infectious Diseases. Accessed 10/28/22
- Whiteson JH, Azola A, Barry JT, et.al Multi-disciplinary collaborative consensus guidance statement on the assessment and treatment of cardiovascular complications in patients with post-acute sequelae of SARS-CoV-2 infection (PASC). PM R. 2022 Jul;14(7):855-878. doi: 10.1002/pmrj.12859. Epub 2022 Jul 13. PMID: 35657351; PMCID: PMC9347705.
- Becker C, Beck K, Zumbrunn S, Memma V, et.al. Long Covid 1 year after hospitalization for covid-19: a prospective bicentric cohort study. Swiss Med Weekly 2021;151:w30091.

50

SKIN AND MUCOCUTANEOUS MANIFESTATIONS

- Nuno-Gonzalez A, Martin-Carrillo P, Magaletsky K, et al. Prevalence of mucocutaneous manifestations in 666 patients with COVID-19 in a field hospital in Spain: oral and palmoplantar findings. *Br J Dermatol*. 2021;184(1):184-185. doi:10.1111/bjd.19564
- Mylapalli, H.M. Covid tongue: a new symptom of Covid-19. J. Clin. Pharm. Res., 2021, 1(2), 36-38.
- Amorim Dos Santos J, Normando AGC, Carvalho da Silva RL, et al. Oral Manifestations in Patients with COVID-19: A Living Systematic Review. *J Dent Res*. 2021;100(2):141-154. doi:10.1177/0022034520957289
- Varga Z. Endotheliitis bei COVID-19 [Endotheliitis in COVID-19]. *Pathologe*. 2020;41(Suppl 2):99-102.
- Genovese G, Moltrasio C, Berti E, Marzano A, V: *Skin Manifestations Associated with COVID-19: Current Knowledge and Future Perspectives*. Dermatology 2021;237:1-12. doi: 10.1159/000512932. Accessed 1/26/21
- Iranmanesh B, Khalili M, Amiri R, Zartab H, Aflatoonian M. *Oral manifestations of COVID-19 disease: A review article*.

51

SKIN AND MUCOCUTANEOUS MANIFESTATIONS

- American Academy of Dermatology Association: https://www.aad.org/member/practice/coronavirus/registry.
- Bataille, V., Visconti, A., Murray, B., Bournot, A., Wolf, J., Ourselin, S., & Falchi, M. (2020). *Diagnostic value of skin manifestation of SARS-CoV-2 infection. medRxiv*.
- Black J and Cuddigan J. *Skin manifestations with COVID-19: the purple skin and toes that you are seeing may not be deep tissue pressure injury*. WCET® Journal 2020;40(2):18-21
- Black, J., Cuddigan, J., Capasso, V., Cox, J., Delmore, B., Munoz, N., & Pittman, J. on behalf of the National Pressure Injury Advisory Panel (2020). *Unavoidable Pressure Injury during COVID-19 Crisis: A Position Paper from the National Pressure Injury Advisory Panel.* Available at www.npiap.com.
- Clinical, Laboratory, and Interferon-Alpha Response Characteristics of Patients With Chilblain-like Lesions During the COVID-19 Pandemic
- Biswal JK , Mohanty SK, Satya, Behera SN , et el. Acute Limb Ischemia: A Catastrophic COVID-19 Sequel Leading to Amputation.
- https://foamcast.org/2020/04/29/covid-19-cutaneous-manifestations-and-covid-toes/.

52

52

SKIN AND MUCOCUTANEOUS MANIFESTATIONS

- Young S, Fernandez AP. Skin manifestations of COVID-19. In COVID-19 Curbside Consultants. Cleveland Clinic. Posted May 7, 2020 https://www.ccjm.org/content/early/2020/05/12/ccjm.87a.ccc03.
- Varga Z. Endotheliitis bei COVID-19 [Endotheliitis in COVID-19]. Pathologe. 2020 Dec;41(Suppl 2):99-102. German. doi: 10.1007/s00292-020-00875-9. PMID: 33306138; PMCID: PMC7731145.
- Dermatology Solutions: Emerging Skin Manifestations of COVID-19. https://www.dermsolutionstx.com/covid.
- Marzano AV, Cassano N, Genovese G, Moltrasio C, Vena GA. Cutaneous manifestations in patients with COVID-19: A preliminary review of an emerging issue. Br J Dermatol 2020; published online June 1. DOI:10.1111/bjd.19264.
- Khezri, Mohammad Rafi; Ghasemnejad-Berenji, Morteza PhD; Jafari, Reza PhD Skin Tissue: A Place for SARS-CoV-2 to Multiply and Transmit?, Advances in Skin & Wound Care: October 2021 - Volume 34 - Issue 10 - p 513-514

53

53

SKIN AND MUCOCUTANEOUS MANIFESTATIONS

- Wollina U, Karadağ AS, Rowland-Payne C, Chiriac A, Lotti T. Cutaneous signs in COVID-19 patients: A review [published online ahead of print, 2020 May 10]. Dermatol Ther. 2020.
- Galván Casas, C., Catala, A. C. H. G., Carretero Hernández, G., Rodríguez-Jiménez, P., Fernández-Nieto, D., Rodríguez-Villa Lario, A., & García-Gavín, J. (2020). Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases. *British Journal of Dermatology*, *183*(1), 71-77.
- Casas G et al. Five common skin manifestations of COVID-19 identified. Br J Dermatol 2020; 183:71–77.
- Clinical and Histopathological Features and Potential Pathological Mechanisms of Skin Lesions in COVID-19: Review of the Literature, Dermatopathology,10.3390/dermatopathology7010002, 7,1, (3-16), (2020).
- Feldman SR, Freeman EE. Coronavirus disease 2019 (COVID-19): Cutaneous manifestations and issues related to dermatologic care. https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-cutaneous-manifestations-and-issues-related-to-dermatologic-care.
- Giavedoni P, Podlipnik S, Pericás JM, et al. Skin Manifestations in COVID-19: Prevalence and Relationship with Disease Severity. *J Clin Med*. 2020;9(10):3261.

54

54

REFERENCES – OTHER

- Mukerji SS, Solomon IH. What can we learn from brain autopsies in COVID-19?. *Neurosci Lett*. 2021;742:135528. doi:10.1016/j.neulet.2020.135528.
- Liu J, Li Y, Liu L, et al. Infection of human sweat glands by SARS-CoV-2. Cell Discov 2020;6(1):84.
- COVID-19: Acute limb ischemia https://www.uptodate.com/contents/covid-19-acute-limb-ischemia. Accessed 5/22/21
- Dance A. What is a cytokine storm? https://www.knowablemagazine.org/article/health-disease/2020/what-cytokine-storm
- Oral mucosal lesions in a COVID-19 patient: New signs or secondary manifestations? International Journal of Infectious Diseases, Volume 97, 2020, Pages 326-328.
- Phelan AL, Katz R, Gostin LO. The Novel Coronavirus Originating in Wuhan, China: Challenges for Global Health Governance. JAMA 2020; published online Jan 30. DOI:10.1001/jama.2020.1097.
- Shenoy, N., Luchtel, R. & Gulani, P. Considerations for target oxygen saturation in COVID-19 patients: are we under-shooting?. *BMC Med* 18, 260 (2020). https://doi.org/10.1186/s12916-020-01735-2

55

REFERENCES – OTHER

- Puntmann VO, Carerj ML, Wieters I, et al. Outcomes of cardiovascular magnetic resonance imaging in patients recently recovered from coronavirus disease 2019 (COVID-19). *JAMA Cardiol* 2020; 5: 1265–73.
- Gonzalez CE, Gimenez G A, Rodriguez LL, Castro RJG, Martinez A, et al. Acute peripheral arterial thrombosis in COVID-19. Role of endothelial inflammation. Br J Surg. 2020 Sep;107(10):e444-e445.
- Arthur JM, Forrest JC, Boehme KW, Kennedy JL, Owens S, Herzog C, et al. (2021) Development of ACE2 autoantibodies after SARSCoV-2 infection. PLoS ONE 16(9): e0257016. https://doi.org/10.1371/journal.pone.0257016
- Hirose R, Itoh, Y, Ikegaya H, Miyazaki H, et.al. Differences in environmental stability among SARS-CoV-2 variants of concern: Omicron has higher stability. bioRxiv 2022.01.18.476607; doi: https://doi.org/10.1101/2022.01.18.476607 Accessed 3/11/22
- https://www.cdc.gov/mis/mis-a.html
- Seebacher N, Kirkham J, Smith SD. Lessons from practice-Cutaneous manifestations of COVID-19: diagnosis and management. Med J Aust 2022; 217 (2): 76-78. || doi: 10.5694/mja2.51621

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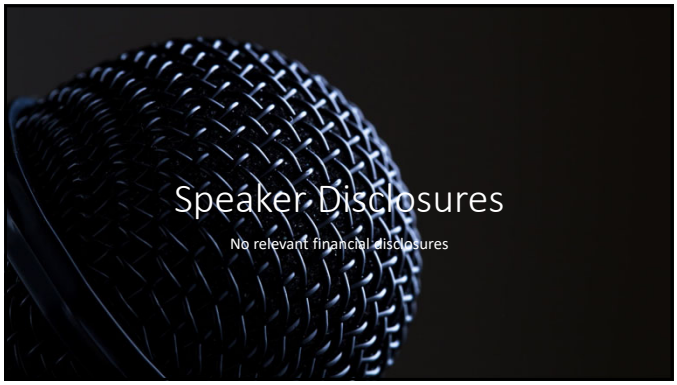
Boots on the Ground
LONG COVID SUMMIT
Panel Discussion

1


Speaker Disclosures
No relevant financial disclosures

2

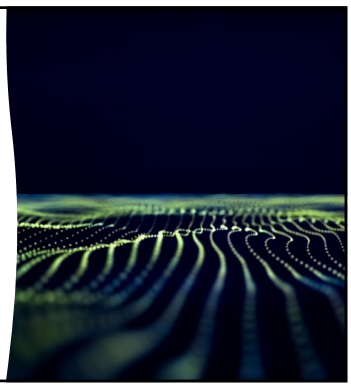

The Thing about Long COVID
Swati Gaur, MD, MBA, CMD
Medical Director, New Horizons Nursing Facilities, Northeast Georgia Health Systems
CEO, Care Advances Through Technology

3

Coding Long COVID (U09.9) - a critical step

PRIMARY
- chronic respiratory failure (**J96.1-**),
- loss of smell (**R43.8**),
- loss of taste (**R43.8**),
- multisystem inflammatory syndrome (**M35.81**),
- pulmonary embolism (**I26.-**)
- pulmonary fibrosis (**J84.10**),

U09.9 SECONDARY to above specific codes



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Vaccine effectiveness against Long COVID

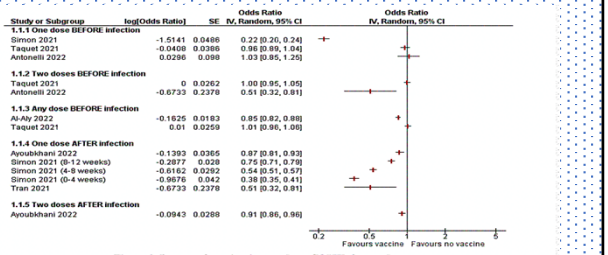


Figure 3. Impact of vaccinations on long COVID forest plot.

Swati Gaur

5

Calling All the Shots

Ginny Hoar, PharmD., BCGP
Manager, Consultant Pharmacists (AR, AL, MS, LA, GA)
Omnicare, a CVS Health Company

6

Immunizations are Key

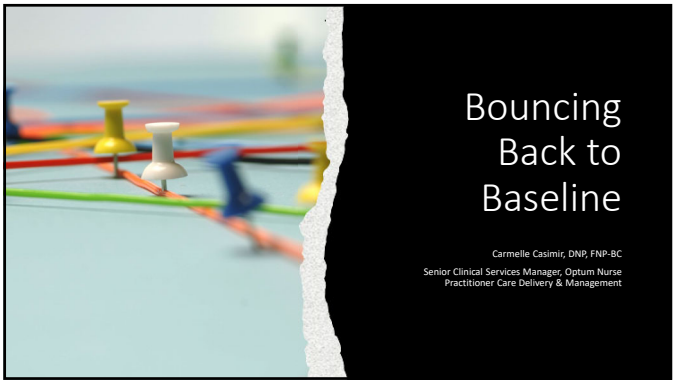
- COVID Vaccine & Boosters
- Influenza Vaccine
- Pneumococcal Vaccine
- Herpes Zoster
- Tdap

7

Collaborating with Consultant Pharmacist

- New Issue or Past symptoms
- Communicating with Prescribers
- Considering other conditions

8



Bouncing Back to Baseline

Carmelle Casimir, DNP, FNP-BC
Senior Clinical Services Manager, Optum Nurse Practitioner Care Delivery & Management

9

Updates from the Bedside

Symptom management

Documenting the Baseline

Residual Effects vs. New Symptoms

Staffing Turnover

Tackling ongoing staff shortages

impact to Resident's care

10

Setting Expectations

- Educating the Staff
- Communicating with the Family

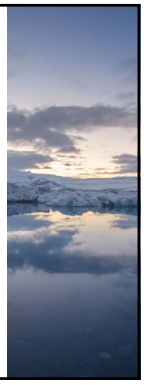
11

Headwinds for PALTC

David Nace, MD, MPH, CMD

Associate Professor and Clinical Chief of Geriatric Medicine, University of Pittsburgh

Chief of Medical Affairs, UPMC Senior Communities



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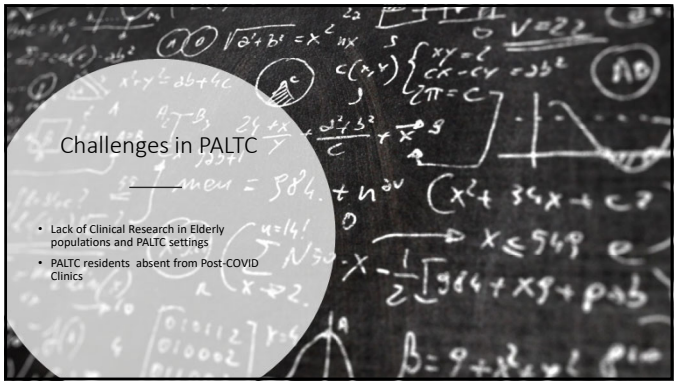

Challenges in PALTC
• Lack of Clinical Research in Elderly populations and PALTC settings
• PALTC residents absent from Post-COVID Clinics

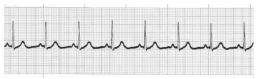
13


Policy Considerations
Name
Signature
Date

14


Open Discussion

15



Best Care Practices in the Post-Acute & Long-Term Care Continuum

EKG Abnormalities in PALTC in the COVID Era

Elizabeth Hidlebaugh, MD
Board Certified Internist and Geriatrician
Naples100
Assistant Professor
Department of Geriatrics
COLLEGE OF MEDICINE

Bernardo Reyes, MD, AGSF, CMD
Associate Professor and Chair
Division of Internal Medicine
NSUFlorida
Program Director IM Residency
Aventura Hospital
HCA Florida Aventura Hospital

1

Disclosures

Dr Hidlebaugh and Dr Reyes have no relevant disclosures for this presentation

2

Objectives

1. Describe the normal physiology of cardiac electrophysiology
2. Interpret and analyze normal variants of ECG strips and determine rate, regularity and rhythm
3. Recognize common ECG abnormalities associated with COVID-19, in clinical scenarios among PALTC patients
4. Identify basic dysrhythmias and their association with common clinical conditions, including COVID-19, presenting in PALTC patients

3

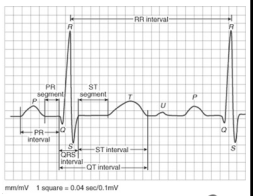
Why order EKG in long term/post-acute care

- New patient evaluation
- History of heart disease, arrhythmias
- Symptoms (chest pain, SOB, palpitations, syncope, etc)
- Elevated/depressed heart rate, blood pressure, oxygen saturation on exam
- Monitoring of QT while on certain medications (fluoroquinolones, SSRIs, antipsychotics, etc)
- Post-hospital follow up on abnormal findings
- **Always compare to old EKG**

4

EKG Basic Physiology

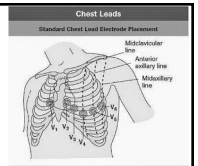
- Time vs voltage
- **30 large boxes = 6 seconds**
- **1 large box = 0.2 seconds, 5 mm**
- 1 small box = 0.04 seconds, 1 mm
- 1 mV signal = 10 mm deflection (2 large boxes)
- P wave
- PR interval <0.2 secs
- QRS interval <0.12 secs
- ST segment
- QT interval <450 secs M, <460 F
- T wave
- U wave



5

EKG Basic Physiology Cont.

- Leads
  - Lateral leads: I, aVL, V5, V6
  - Inferior leads: II, III, aVF
  - Septal leads: V1, V2
  - Anterior leads: V3, V4
    - V4 can be moved to R chest for suspected R sided MI
- Make sure precordial (chest) leads V1-V6 placed properly- poor R wave progression (infarct)



Elements of Chest Leads

Lead	Positive Electrode Placement	View of Heart
V_1	4th intercostal space to right of sternum	Septum
V_2	4th intercostal space to left of sternum	Septum
V_3	Directly between V_2 and V_4	Anterior
V_4	5th intercostal space at left midclavicular line	Anterior
V_5	Level with V_4 at left anterior axillary line	Lateral
V_6	Level with V_4 at left midaxillary line	Lateral

6

EKG Basic Physiology Continued

- Rate (normal 60-100 bpm)
- Rhythm (sinus vs arrhythmia)
- Axis (right vs left)
- Intervals (PR, QRS- bundles, QT)
- ST/T/q wave changes
- Other (LVH, RVH, low voltage, LAE, RAE)

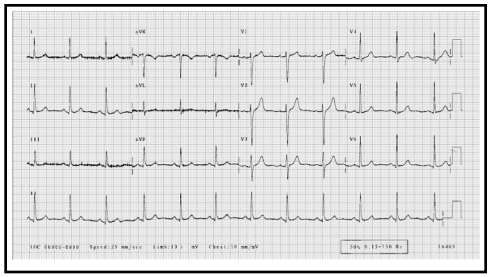
Rowdy Resident Always Interrupts Sign Out (or Signing Orders)

7

EKG Basic Physiology Continued

- Artifact
  - Loose electrodes
  - Broken EKG cables or wires
  - Tremors
    - **Clip EKG cable to clothing**
  - Patient movement
  - Chest compressions (CPR)
  - 60 cycle interference (improperly grounded electrical equipment or electrical interference)
    - Check for crossing of cable wires with other electrical wires (bed control etc)
- The baseline is key

8



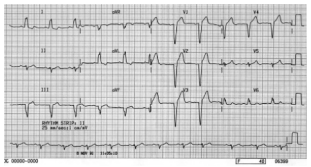
9

CASE A

88 y/o male with hx of hypertension, DM, hyperlipidemia and prior strokes who is a long-term care resident of your facility.

He was hospitalized six months ago after COVID infection. He recovered well and is currently at his baseline.

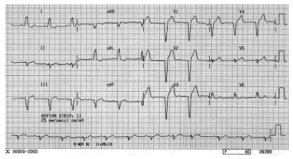
Today, you are completing his Medicare Annual Wellness visit you completed an EKG. Prior EKG's have been within normal limits.



10

LBBB

1. QRS duration greater than 120 milliseconds
2. Absence of Q wave in leads I, V5 and V6
3. Monomorphic R wave in I, V5 and V6
4. ST and T wave displacement opposite to the major deflection of the QRS complex
5. QRS complexes in leads facing the left ventricle (I, aVL and V6) show an M shaped pattern



11

LBBB & COVID

- Ischemic disease
- Hypertensive heart disease
- Idiopathic conducting system disease. Cardiomyopathy (restrictive, dilated and hypertrophic)

The American Journal of Cardiology

Left Bundle Branch Block and Mortality in COVID-19 Patients

Marco Zuin, MD, Gianluca Rigatelli, MD, PhD, [...], and Giovanni Zuliani, MD, PhD

Am J Cardiol. 2021 Aug 15;153:149-150

Higher mortality risk in COVID-19 patients with LBBB

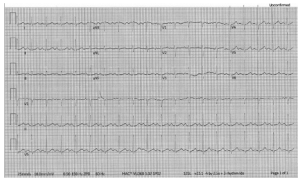
12

CASE B

Nurse calls you because a 90 F patient is experiencing acute onset SOB. She was recently admitted to your facility for short stay rehab after hospitalization and surgical repair of a R hip fracture. She had no complications.

PMHx includes well controlled T2DM, well controlled HFpEF, peripheral neuropathy, mild cognitive impairment.

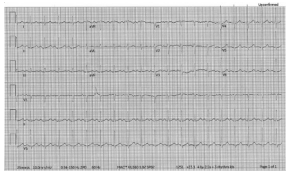
Vitals: O2 sat 90% on RA, BP 100/50, Temp 98.6 F



13

Sinus Tachycardia & Pulmonary Embolism

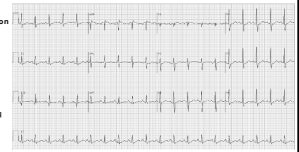
1) Large box method for rate: ~110
2) P before every QRS (which appears narrow)
3) P-P and R-R appear similar
4) Normal axis, intervals
5) No ST, T changes, q waves
6) May have some LAE
7) No other significant changes



14

Pulmonary Embolism

- Most commonly occur 2-10 days after surgery, but up to 3 months
- Sinus tachycardia is most common
- ~70% of time see nonspecific ST and T wave changes
- Classic finding but uncommon: S1Q3T3, also RV strain, new incomplete RBBB
- Poor prognostic findings: atrial arrhythmias, bradycardia or tachycardia, new RBBB, inferior q waves, anterior ST-segment changes and T wave inversion, S1Q3T3



15

CASE C

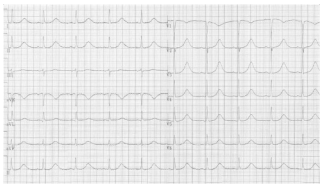
92 y/o male community dwelling with hx of dementia with psychotic features living with this family.

He has had several unsuccessful Seroquel GDR's in the past

He was sent to the hospital for COVID infection with superimposed bacteria PNA.

He is admitted as a Post-Acute patient.

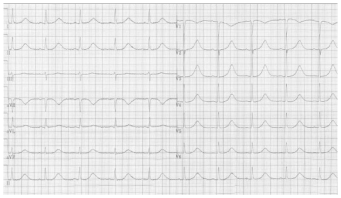
EKG at admission to the hospital as follows (last one the day of hospitalization WNL)



16

QTc Prolongation

1. QTc were: Age < 40 years, men 430 ms, women 440 ms;
2. Age 40 to 69, men 440 ms, women 450 ms;
3. Age ≥ 70 years, men 455 ms, and women 460 ms.



17

QTc Prolongation and COVID

- Associated with the use of multiple medications:
  - macrolide and fluoroquinolone antibiotics antifungal medications
  - antihistamines
  - antipsychotic and antidepressant medications
  - methadone
  - class Ia and class III antiarrhythmics
- Prolonged QTc (>450 ms) considered a High-Risk in Syncope
- Greatest risk of sudden cardiac death with with a **QTc** interval >500 ms


JAMA Network Open.

Original Investigation | Cardiology

Cardiac Corrected QT Interval Changes Among Patients Treated for COVID-19 Infection During the Early Phase of the Pandemic

JAMA Netw Open. 2021;4(4):e216862

COVID-19 infection is independently associated with significant mean QTc prolongation

18

CASE D

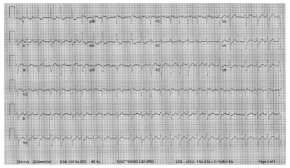
The daughter of a LTC resident of yours (80 yo M) stops you during rounds to let you know that his I-watch was beeping, alerting for an arrhythmia.

He has a PMHx of HFrEF, Hyperthyroidism and Dementia.

You review his chart and note that his Metoprolol was held this morning due to low BP. He has also been refusing his Methimazole most mornings.

Vitals: BP 90/60, O2 sat 93% RA, Temp 98 F

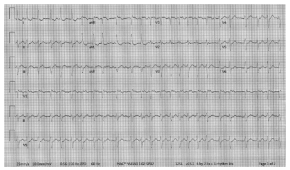
You obtain a 12 lead EKG



19

Atrial Fibrillation and RVR

1) Rate- 30 large boxes = 6 seconds, count R in that time = ~150 bpm
2) Rhythm- R to R irregular, no consistent P before every QRS
3) Axis- LAD
4) Intervals- can't determine PR in irregular rhythm, QRS incomplete RBBB, QTc long 498
5) Slight ST depressions laterally
6) LVH by aVL
7) Poor R wave progression



20

I-Watches & Cardiac Monitoring

- Apple Watches EKG feature is **FDA approved to detect Atrial fibrillation only**
  - One lead, similar to lead I
- **AliverCor's Kardiaband device** (watch band and app) and app that works with Apple Watch
- AliveCor personal ECG monitor (KardiaMobile) can be used with phone
  - Original (1 lead, FDA approved for Afib "and more")
  - Card device (FDA approved for Afib, can detect other arrhythmias but not FDA approved)
  - 6L (**leads I, II, III, aVL, aVR, and aVF, FDA approved,** can detect other arrhythmias)
  - Membership program (EKGs reviewed remotely by board certified cardiologist licensed in patient's state, 4 per year)
- Apple Watches EKG feature can also detect bradycardia
- **WatchOS 9 has medication tracking features (set schedules, reminders), sleep monitoring**
  - **AFib History feature**, estimates how often in atrial fibrillation, can be shared as PDF (FDA cleared)
  - Sleep monitoring includes HR and RR data, time spent in REM, core, or deep sleep stages

21

CASE E

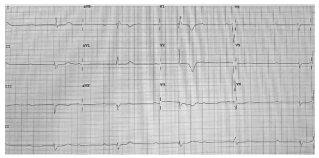
93-year-old man residing at your ALF with history of DM and HTN is being evaluated at the facility's office for progressive dyspnea, weakness, and myalgias for 4 days.

Vital signs were remarkable for blood pressure of 130/61 mm Hg, heart rate of 44 bpm, and oxygen saturation at 76% on room air, which improved to 93% with NC.

He does not want to be transferred to a hospital.

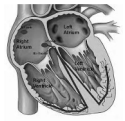
Chest radiography (CXR) demonstrated multifocal pneumonia and an enlarged cardiac silhouette.

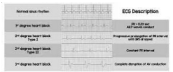
Initial EKG is a follows



22

AV- Block





23

A-V Block and COVID

Two Theories

Myocarditis due to COVID-19 has been reported

Elevation in cardiac and inflammatory markers may reflect a direct effect of the virus on the cardiac conduction system

Hypoxia may lead to conduction defects, potentially mediated via endogenous adenosine·

Treatment of the patient's hypoxia did not resolve the atrioventricular block as would have been expected if poor oxygenation were the driving cause

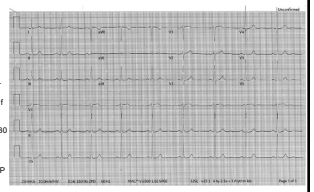
24

CASE F

Your facility physical therapist approaches you on rounds that your 78 yo F patient who has been undergoing rehab after hospitalization for COVID has been experiencing new onset SOB. Prior to this she has been making good progress with PT without SOB. PMHx of HTN, CVA.

SLUMS last week showed score of 16/30 and per family's request you started patient on Donepezil.

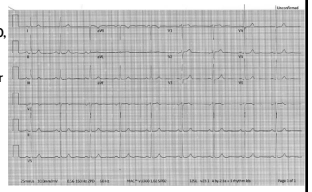
Vitals: O2 sat 97% RA, Temp 98.1 F, BP 128/70



25

Sinus Bradycardia

1) Rate- R to R ~50, counting R in 6 secs ~60, computer read 55
2) Rhythm- P before every QRS, P-P and R-R similar
3) Normal axis
4) Normal intervals
5) No ST-T wave changes, good R wave progression
6) No other abnormalities



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Sinus Bradycardia & Donepezil/COVID

- Risk of bradycardia, AV block, syncope with cholinesterase inhibitors such as Donepezil
  - CIs potentiate the parasympathetic nervous system (principally the vagus nerve)
  - Risk of syncope 2% according to Lexicomp
- Medication should be stopped and EKG reassessed
- Underlying conduction system disease common with advanced age
- Consider risks and benefits of restarting medication
- Sinus bradycardia and AV blocks less common with COVID-19 (11.8%) than tachyarrhythmias but may be seen more often in older adults with cardiac RFs
  - May be sign of impending cardiovascular collapse

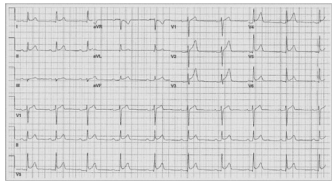
27

CASE G

85 y/o female with hx of CAD, anemia, and HTN s/p COVID infection. She was transferred to your SNF after her hypoxemia resolved.

One week after her arrival, you receive a call at 1 am because the patient is complaining of respiratory distress, tachycardia, and pleuritic chest pain.

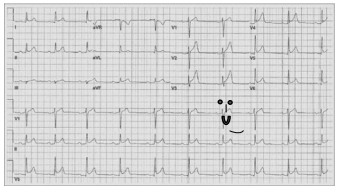
EKG is as follows



28

Pericarditis

1. *diffuse ST-T wave elevation*
2. *"Smiley face"*



29

Pericarditis and COVID

Pericarditis in patients with COVID-19: a systematic review

Diaz-Arocutipa Carlos; Saucedo-Chinchay, Jose; Imazio, Massimo

Journal of Cardiovascular MedicineJournal of Cardiovascular Medicine. 22:p 693-700, September 2021.

- COVID-19 patients with pericarditis had similar clinical features to other viral cardiotropic infections
- Most frequent electrocardiographic pattern (56%) is diffuse ST-elevation and PR depression
- Pericardial effusion and cardiac tamponade in 35% of cases, respectively
- Short term prognosis was good

30

Questions?

31

Clinical Pearls

- EKGs are important part of management of PALTC patients and can provide valuable information
- Always compare to old EKGs, check leads, adjust for artifact, use systematic approach
- Arrhythmias are common in older adults due to underlying cardiac disease and aging conduction system
- COVID-19 infection can lead to arrhythmias, pericarditis, AV block, QT prolongation, can increase their related mortality
- I-Watches and Kardiaband devices can provide helpful information such as Afib and heart rate but should always be validated with 12-lead EKG

32

References

Pictures: https://www.proacls.com/training/video/normal-sinus-rhythm

https://ecglibrary.com/norm.php

Aehlert B. *ECGs Made Easy*. 2nd ed. Mosby; 2002.

https://www.stoptheclot.org/about-clots/toolkit-for-knee-hip-replacement-patients/prevention-and-treatment-of-blood-clots-after-hip-and-knee-replacement-surgery/

https://www.self.com/story/cardiologists-apple-watch-heart-monitoring-features

https://www.healthline.com/health-news/apple-watch-new-health-features-for-afib-tracking-and-monitoring-medications#Medication-tracking

Long B, Brady WJ, Bridwell RE, et al. Electrocardiographic manifestations of COVID-19. *Am J Emerg Med*. 2021;41:96-103. doi:10.1016/j.ajem.2020.12.060

33

Long Covid Prognosis

Leonard Hock, DO, CMD

1

Long Covid, The Whole Story

- Buffalo Springfield
- 1967
- "Something happening here, what it is ain't exactly clear."

2

What is Long Covid

- Symptoms that occur after Covid infection*
- What symptoms?
- How long after?

3

Names

- Long Covid
- Post Covid
- Post Covid Condition, PCC
- Post Covid Syndrome, PCS
- Post Acute Sequelae of Covid, PASC
- And others

4

Post Acute Sequalae of Covid

- Disease
- Condition
- Syndrome
- Entity

5

Symptoms

- Fatigue
- Shortness of breath
- Brain fog
- Loss of taste and smell
- Muscle aches
- And, 200 others

6

How Long After

- CDC: Greater than 4 weeks after acute infection*
- WHO: Greater than 3 months after acute infection*

7

How Long After?

- Symptoms that last or occur after acute stage*
- Symptoms that persist 30, 60, 90 days or longer.
- May improve in weeks, or not.

8

Long Covid Groups or Types

- Neurologic Symptoms
  - Anosmia, Brain fog, depression, fatigue
- Respiratory Symptoms
  - Shortness of breath, chest pain, fatigue
- Systemic/inflammatory, Abdominal Symptoms
  - Myalgias, GI disorders, fatigue

9

Possible Causes

- Reduced Immune System response
- Reinfection of the virus*
- Inflammation reaction
- Deconditioning due to illness and bedrest
- Post Traumatic Stress Disorder

10

A Different Thing

- "Not just one thing, not just one condition"
- "Overlapping entities"
- "Potentially different causes"
- "Different set of risk factors and outcomes"
- "Multifaceted disease affecting every organ"
- per Admiral Rachel Levine, HHS

11

Severity of Illness

- Postulated that more severe acute illness leads to higher likelihood of Long Covid
- Modest symptoms non hospitalized can still lead to long lasting symptoms
- Non symptomatic, testing positive, can have long lasting symptoms

12

*

- "While most people with post-Covid conditions have evidence of infection or Covid-19 illness, in some cases, a person with post-Covid conditions may not have tested positive for the virus or known they were infected."
- CDC, "What you need to know" July 2021

13

Diagnosis

- Symptomatic
- Subjective
- No laboratory or radiographic tests
- No physical exam findings that are conclusive
- No objective findings

14

Consequences of Long Covid

- Debility, physical and cognitive
- Irritating to incapacitating
- 10%, 20%, 30% or more of acute Covid patients develop long Covid
- LTC residents, age and fragility, at risk
- "4 million people unable to work." Harvard

15

Caring for the Ages, Aug. 2022

- LTC seeing "new"
- Heart and lung problems
- Accelerated frailty
- Functional decline
- Prolonged delirium
- Unusual skin manifestations

16

Caring for the Ages, Aug. 2022

- "not rehabbing as expected"
  - Dr. Diane Sanders-Cepeda
- 45.4% of those over 65 had 26 conditions attributed to post Covid.

17

Caring for the Ages, Aug. 2022

- "Covid 19 survivors in LTC have been found to have poorer outcomes related to malnutrition, weight loss, and frailty compared to the non infected." Akber Mithani, MD

18

What to do?

- Keep a watchful eye
- Document their symptoms
- Document and/or report your observations
- Address what you can
- Use ICD-10 code; U09.9
  - Billable post Covid code

19

Thank you

Leonard Hock, DO, CMD
561 714-1531

20

The Importance of Deprescribing for Older Adults

Ginny Hoar, Pharm D
Clinical Manager

Wil Aqui, Pharm D
Clinical Manager

November 3, 2022

1

Learning Objectives

- Identify common patterns of polypharmacy in the post-acute and long-term care patient
- Understand the importance of patient-centered pharmaceutical care
- Identify prescribing cascades and implement strategies to prevent them
- Plan and implement a facility-based interdisciplinary deprescribing program

2

Deprescribing

Deprescribing involves intentionally decreasing or discontinuing medications that are potentially harmful or no longer beneficial

Continually reevaluate if a medication is causing more harm than benefit

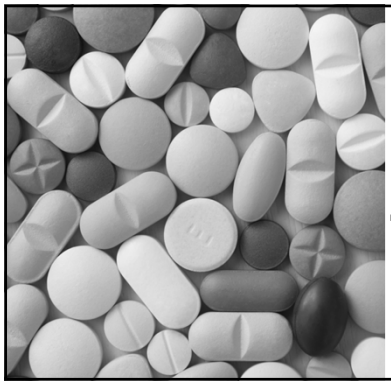
3

Why is deprescribing important?

- All medications can cause harm as well as benefit
- Older adults are particularly vulnerable to the adverse effects of medications
- The more complex the medication list, the more likely there will be interactions or adherence issues
- Personal and clinical goals of care can change over time and should be periodically reevaluated

Think about deprescribing as an important part of medication stewardship

4



2019 Kaiser Family Foundation Health Tracking Poll

- 54% of patients over age 65 took 4 or more medications

Med D Prescription Drug Program Data Set (2014-2018)

- 43 billion doses of inappropriate medications dispensed (Beers Criteria medications)
- Spending of $25.2 billion on inappropriate medications
- Top three categories
  - Proton Pump Inhibitors
  - Benzodiazepines
  - Tricyclics

Lown Institute

- 750 older patients hospitalized each day due to serious side effect from one or more medications
- Each additional medication added to regimen increases risk of adverse drug event by 7-10%
- Over next decade estimate up to 150,000 premature deaths related to adverse drug events

5

Negative Impact on Quality of Life

- Interference with activities
- Worry that a diuretic will cause incontinence in public
- Time it takes to administer nebulizers or other treatments
- Burden of excessive lab or vitals monitoring

6

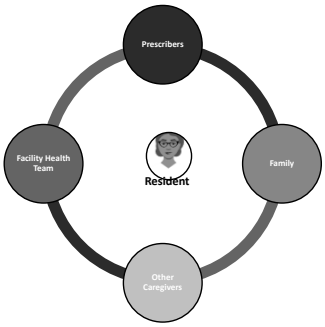
When to Look for Deprescribing Opportunities

- Admission
- Discharge
- Medication reconciliation
- Change of condition or adverse drug event
- Care planning, interdisciplinary meetings
- Discussions with family, caregiver, or resident

7

Who is Involved in Deprescribing Efforts

- Family members may have valuable historical information
- Front-line caregivers have more frequent interaction with residents
- Prescribers and specialists can use information obtained from others when making clinical decisions



8

Identifying Opportunities for Deprescribing

9

Looking at the Medication List

Have there been any changes in the medication list?

- Do we know the indication for each medication?
- Do we know why medication was stopped or started?
- Was the medication changed during a hospitalization or a change in setting?

Are there any apparent duplications?

- If a different medication was used in the hospital, was it continued after discharge? Was the original medication discontinued or is there now a duplication?

Does the medication need a stop date or should it be discontinued?

- Is this medication usually used for a limited duration (e.g., antibiotics, cough and cold, heparin) and has the full course of treatment been completed?
- Was the medication ordered for an illness that has now resolved (e.g., acute pain, acute behavior, wound)?

10

Common Opportunities for Deprescribing

	Situation	Considerations
No Longer Required	Ciprofloxacin 500 mg twice daily for a bladder infection	Ask about a stop date
Duplicate Therapy	Lisinopril changed to fosinopril in the hospital. The discharge summary lists both.	Contact the pharmacist or prescriber if a duplication is suspected
Adverse Effects	Newly started on terazosin for enlarged prostate and has several falls	Check for orthostatic hypotension and alert the prescriber

11

Looking for Changes in the Resident

Is there a new symptom or functional change?

- Is the new problem a known side effect of a medication (e.g., falls, weight loss)?
- Did it happen about the same time as a medication change?

Does the treatment seem to be having no impact?

- Is a drug-drug interaction causing the treatment to be less effective?
- Does the medication or current dose need to be reevaluated?

Has illness or frailty progressed significantly?

- Are all the chronic medications still needed?
- Is the current dose still safe and effective?
- What are the palliative or end of life wishes of the resident?

12

Common Opportunities for Deprescribing

	Situation	Considerations
Lack of Clinical Benefit	Mirtazapine was added for crying that continues long after the medication was started	Discuss other causes with the prescriber such as pain
End of Life/Palliative Care	A person with end-stage cancer is admitted to hospice care and receives lovastatin	The lovastatin is not likely to contribute to comfort or prolong life. Ask about discontinuation.
Safer Alternative is Available	Diphenhydramine for sleep was noted upon admission	High risk medication. Initiate non-drug interventions for sleep-hygiene and ask about tapering off.

13

Deprescribing Case Study #1

AB is a 91-year-old female residing in a SNF with a history of Alzheimer's, Depression HTN, Type 2 Diabetes, Osteoarthritis, Hyperlipidemia and Frequent Falls.

She has fallen several times over the past few months.

Her medications include
Memantine XR 28mg once daily, Aspirin 81mg once daily, Mirtazapine 7.5mg at bedtime, Losartan 50mg once daily, Amlodipine 5mg once daily, Metformin 500mg once daily, Glimepiride 1mg once daily, Insulin Detemir 18 units once daily

Poll Question:
Without any additional information, which medication would you discontinue first?

14

Deprescribing Case Study #1

LABS
A1c 5.1%

Accu-checks
64-132mg/dL

Blood Pressures
Low 102/58 mmHg 3
High 158/79 mmHg

BIMS

Poll Question:
Considering vitals and labs which medication would you discontinue first?

15

ADA Glycemic Targets in Older Adults

	Healthy Older Adult	Complex Older Adult	Very Complex Older Adult
General characteristics	Few coexisting chronic illnesses, cognitively and functionally intact	Multiple coexisting chronic illnesses, ADL impairments, mild-to-moderate cognitive impairment	LTC or end-stage chronic illness, moderate-to-severe cognitive impairment, 2 or more ADL dependencies
Reasonable A1C Goal*	< 7.5%	< 8%	< 8.5%†
Fasting or Preprandial Glucose Goal	80 to 130 mg/dL	90 to 150 mg/dL	100 to 180 mg/dL
Bedtime Glucose Goal	80 to 180 mg/dL	100 to 180 mg/dL	110 to 200 mg/dL

16

Drugs Associated with ED Visits in Those 65 Years and Older – Antidiabetics

#2	#7	#8	#14	#15
Insulin	Metformin	Glipizide	Glyburide	Glimepiride

65 years+ with diabetes are more likely to be hospitalized after an ED visit than those without diabetes (34% vs. 26%)

75 years+ have the highest rate of ED visits for hypoglycemia and **2.5X higher** than the group aged 45-64 years

ED = emergency department

17

Identifying Candidates for Deprescribing

D	• Dementia, especially with erratic eating patterns and abnormal behaviors
E	• Elderly, especially ≥ 80 years old
I	• Impaired renal function, especially end stage renal disease
N	• Numerous comorbidities, especially ≥ 5 comorbidities
T	• Tight glycemic control, especially A1C < 7%
E	• End of life, especially ≤ 1 year life expectancy
N	• Nursing home residents, especially with multiple comorbidities
S	• Significant weight loss, especially unintentional weight loss
I	• "Inappropriate" medications, especially insulin or sulfonylureas
F	• Frequent hypoglycemia, especially serious episodes needing assistance
Y	• Years of diabetes, especially those > 20 years since diagnosis

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Blood Pressure Targets for Older Patients

Table 1: A Comparison of Blood Pressure Thresholds and Targets between ACC/AHA, ACP/AAFP, and ESC/ESH Guidelines

	ACC/AHA 2017	ACP/AAFP 2017	ESC/ESH 2018
Definition of Older Patients	≥65 years	≥60 years	Elderly 65-79 years Very Old ≥80 years
BP Threshold for Initiation of Pharmacotherapy	≥130/80 mmHg	SBP ≥150 mmHg	Elderly ≥140/90 mmHg Very Old ≥160/90 mmHg
Blood Pressure Target	<130/80 mmHg	SBP <150 mmHg	SBP 130-139 mmHg DBP 70-79mmHg

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Other Medications Commonly Targeted for Deprescribing

- **Cholesterol lowering** (e.g., atorvastatin)
- **Dementia medications** (e.g., donepezil)
- **Osteoporosis agents** (e.g., alendronate given for 5 years)
- **Acid reducers** (e.g., famotidine, omeprazole)
- **Psychiatric medications** (e.g., lorazepam, olanzapine)
- **OTC and Herbals** (e.g., multivitamin, diphenhydramine, ginkgo biloba)

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Common Adverse Effects of Medication

- **morphine** — Constipation, delirium, over-sedation
- **alprazolam** — Falls, daytime sleepiness
- **oxybutynin** — Falls, dry mouth or eyes
- **clonidine** — Orthostatic hypotension, falls
- **glyburide** — Hypoglycemia, falls
- **levofloxacin** — Tendon tears, changes in mood or behavior

Negative Impact on Quality of Life

21

The Prescribing Cascade

When a drug side effect is misinterpreted as a new medical condition and additional drug therapy is prescribed to treat this medical condition, we refer to it as a prescribing cascade

22

Deprescribing A Team Effort

23

Key Members Of The Optimal Deprescribing Meeting

Physician
PA or ARNP
Director of Nursing
Consultant Pharmacist
Social Worker
Dietician
Therapy

24

Deprescribing Meeting Day

- Preselect 5-10 Residents to Review
- Ensure the entire team has access to the patient chart
- Assign a team member to document interventions
- Encourage interdisciplinary input during meeting
- Recap each patient's recommended interventions
- Create a deprescribing notebook

25

Deprescribing Case Study #2

RD is an 84 yo resident residing in a SNF.
She has a PMH of GERD , DM Type 2, HTN , Alzheimer's Dementia, Major Depressive Disorder, General Anxiety Disorder, Chronic UTI, Osteoporosis, Back and Neuropathic Pain and Insomnia

Medications

Metoprolol 25 mg twice daily
Lisinopril 5 mg daily
KCL 20 mEQ daily
Losartan 100 mg daily
Trazodone 25 mg at bedtime
Remeron 7.5 mg at bedtime
Restoril 15 mg at bedtime
Paroxetine 20 mg daily
Citalopram 40 mg daily
Vit D3 2000u daily
Magnesium Oxide 400 mg daily
Nitrofurantoin 100 mg daily
MVI with Mineral daily
Clonidine 0.1mg q6h as needed
Amitriptyline 50 mg twice daily
Ferrous Sulfate 325 mg three times daily
Vit B12 1000 mcg daily
Omeprazole 20 mg daily (since 1/21)
Famotidine 40 mg daily (since 5/22),
Gabapentin 200 mg three times daily
Tramadol 50 mg three times daily
Colace 100 mg daily
Novolog Sliding Scale before meals and at bedtime
Metformin 500 mg twice daily
Senna S twice daily
Folate 1 mg daily
Megestrol ES 400 mg twice daily

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Labs and Vitals

K 5.2 mmol/L **HgA1c 5.6%**
SrCr 1.0 mg/dL **Hgb 13.8%**
Hct 42% **Mg 2.5 mg/dL**
Vit B12 > 1500 pg/mL **Folate > 22.5 ng/mL**
25 Hydroxy Vit D 89 ng/mL
Systolic blood pressure range 90-100 mmHg
Diastolic blood pressure range 60-64 mmHg
Blood Sugars 90-110 mg/dL
Weight gain of 24 pounds over past 30 days

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Case Study # 2

Deprescribing Opportunities

1. Discontinue Sliding Scale Insulin – A1C is 5.6%
2. Discontinue Potassium Chloride – Serum K was 5.2 ; No diuretic; On ACE and ARB
3. Discontinue Megace ES – therapy greater than 30 days and 24 pound weight gain
4. Discontinue Vit D – levels close to top of therapeutic Vit D range and risk of Vit D toxici
5. Evaluate opportunities with blood pressure medications
6. Evaluate opportunities with depression medications
7. Evaluate opportunities with GERD medications
8. Discontinue Nitrofurantoin 100 mg QD – Antimicrobial Stewardship Compliance
9. Evaluate opportunities with anemia medications

28

Case Study # 2

Benefits of Deprescribing

1. Reduced medication burden for the patient
2. Reduced medication pass time requirements for nursing staff
3. Reducing the risk for falls and adverse events
4. Reduced medication costs
5. Reduced risk for F- Tags and Survey deficiencies

29

Discussing Deprescribing with the Resident or Family

30

Next steps

1	2	3
Involve consultant pharmacist in education to facility and family on deprescribing	Identify Team Members for participation on Deprescribing Team	Set a date and time for the Deprescribing meeting

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Clinical Pearls

- A successful deprescribing program involves the entire interdisciplinary team
- Deprescribing is a continual process of evaluating the appropriateness of medication based on patient specific clinical and personal goals
- Deprescribing efforts improve patient quality of life and reduce adverse medication events, hospitalizations and healthcare costs

32

References

- Eliminating medication overload: A national action plan. Working group on medication overload. Brookline, MA. The Lown Institute, 2020.
- Fralick, Michael et al. (2020) Estimating the Use of Potentially Inappropriate Medications Among Older Adults in the United States. *Journal American Geriatrics Society, 25 Aug 2020.*
- www.kff.org/health-costs/poll-finding/kff-health-tracking-poll-February-2019-prescription-drugs
- Shehab N et al. US emergency department visits for outpatient adverse drug events, 2013-2014. *JAMA*. 2016; 316(20):2115-21
- Hall MJ et al. Emergency department visits by patients aged 45 and over with diabetes: United States, 2015. NCHS Data Brief. 201825.
- American Diabetes Association. Standards of medical care in diabetes-2022. *Diabetes Care*. 2022; 45(1):S1-S264.
- Abdelhafiz AH et al. Deintensification of hypoglycaemic medications-use of a systematic review approach to highlight safety concerns in older people with types 2 diabetes. *J Diabetes Complications*. 2018; 32(4):444-450.
- Kulkarni et al.Older Adults and Hypertension: Beyond the 2017 Guideline for Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults, Feb 26, 2020. American College of Cardiology
- American Geriatrics Society 2019 updated AGS Beers Criteria. *JAGS*. 2019.

33

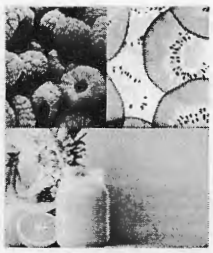
Questions?

34

Mindfulness: Taking care of you as you take care of others.

Laura Tubbs RN LNHA
Assistant Professor, ICHS

1



Learning Objectives

Objective one: The learner will use the concept of health promotion and maintenance for self care.

Objective two: Identify two EBP causes of burnout.

Objective three: Identify common symptoms people experience when stressed.

Objective four: Demonstrate 2 stress reduction techniques.

Objective five: Create a self maintenance plan.

2

Introduction

The journey of mindfulness through the pandemic: a story of self-preservation.

3

Topic one

What is stress and burnout?

4

Definition of Stress and Burnout

Subjective Data: Your definition

Mentimeter activity:

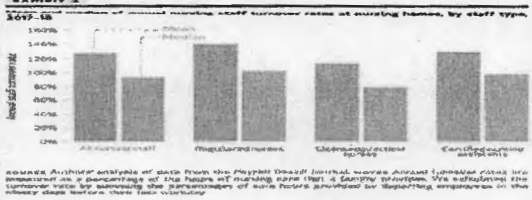
Self reflection-

Objective Data

- Stress is a normal, human reactions (NIH, 2022) It is how your brain and body respond to any demand (psycom.net/stress-test)
- Burnout is a psychological syndrome arising out of managing work stress. It is a combination of emotional exhaustion, depersonalization, and low personal accomplishment (Maslach et al., 2001)
- Stress test (let's take it and see)

5

Chart



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EVP; Causes of Burnout:

Prolonged occupational stress

- Prolonged occupational stress is a principal component rooted in emotional exhaustion, depersonalization, and reduced feelings of personal accomplishment... Maintaining the right work-life balance involves many components: demanding work, socialization, and sleep (Harris, 2021, p.10, 11)

Lack of well-being support

- Press Ganey study results from the Cleveland Clinic June 2020 with 85% participation of approximately 70,000 caregivers in their network. Results: they needed more well being support as soon as possible. The pulse survey offered insight into how COVID-19 was directly affecting caregivers (Hancock, K, et. al, 2021, p. 6)

Low sense of belonging

- Low affective commitment means that nurses have a low perception to be part of the hospital organization. They have a low sense of belonging and not happy to be part of the nursing team in these hospitals (Wentong, W. et. al, 2021, p8)

Sample footer text 3/1/20XX 7

7

Topic three

Self-Maintenance Plan:
I-CARE

8

CARE: Break it down and plan items you would like to commit to-put daily, weekly, monthly next to the item.

C: Comfort-get 6 hours of sleep daily

A: Attitude of gratitude: tell, or write a thank you to 1 person daily

R: Read- a book a month

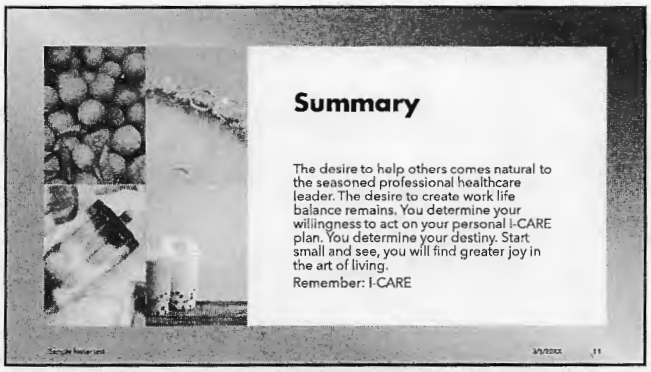
E- Exercise 35 minutes, 5 times per week: Walking Briskly

I-CARE Plan for personal wellness 3/1/20XX 9

9


The way to get started is to quit talking and begin doing.
Walt Disney

10


Summary
The desire to help others comes natural to the seasoned professional healthcare leader. The desire to create work life balance remains. You determine your willingness to act on your personal I-CARE plan. You determine your destiny. Start small and see, you will find greater joy in the art of living.
Remember: I-CARE

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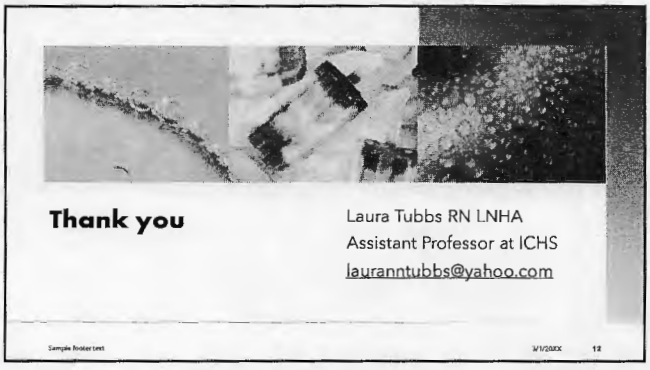
Thank you
Laura Tubbs RN LNHA
Assistant Professor at ICHS
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Update on Telemedicine Research

Florida Medical Director's Association's 2022 Annual Meeting

Thursday, November 3, 2022
5:20 to 6:20 PM

John Whitman, MBA, NHA
Faculty – Wharton MBA Health CARE Management
jwhitman@wharton.upenn.edu

Executive Director
The TRECS Institute
JohnWhitman@theTRECSinstitute.org

1

Meet Gertie

2

Goals of this Session

- Discuss why "Phone Medicine, the current industry standard in long term care, is antiquated
- Review the use of telemedicine in Skilled Nursing Facilities
  - Impact on residents, staff, physicians, SNFs and local hospitals
- Review Findings of Year Long Telemedicine study conducted in 28 skilled care facilities in Florida
  - Impact on avoided admissions
  - Economic Impact on SNFs and Medicare
  - **Lessons learned – Key Success Factors**

3

Telemedicine in Long Term Care

- Catapulted forward by COVID-19
- A quality-of-care improvement for residents
  - Replaces "phone medicine" with virtual bedside visits
- Dramatically reduces unnecessary hospitalizations
- Generates added revenue for SNFs
- Can save Medicare billions of dollars each year

- **Only negative:** Can impact hospital revenue by preventing admissions & readmissions

4

Why Telemedicine in SNFs?

- Because it is the "right thing to do!"
  - For your residents
  - For physicians
  - For Medicare
  - For participating SNFs

- **Prediction:** Within the next 12 to 18 months, any SNF not offering telemedicine services will be significantly compromised from a marketing and revenue perspective.

5

Impact of Telemedicine in SNFs

6

Impact of Telemedicine on SNFs

- Reduces hospitalizations
- Reduces emergency room transfers
- Increases nurse/staff satisfaction
- Increases patient & family satisfaction
- Increases facility revenue
- Tremendous marketing differential

- Can improve medication stewardship
- Can improve advanced care planning

7

Telemedicine in Long Term Care

- Impact on Physicians
  - Can offer more timely intervention for your patients
  - Reduces unnecessary hospitalizations ("to be safe")
  - Provides additional billing opportunities
  - Convenience/Safety – Telemedicine vs trip to SNF

8

CMP Grant in Florida for Telemedicine

- Submitted by The TRECS Institute ($328,000)
- Requested funding to implement telemedicine in 28 SNFs
- Facilities operated by Southern Health Care Management
- 15-month program
  - 2 months for implementation and training
  - 12 months of actual services
  - 1 month for full analysis and reporting
- Implemented and monitored by The TRECS Institute
- Retained a national telemedicine practice to provide evening, nights, weekend, and holiday coverage.
  - Served as the "physician on call"

9

Implementation (Phase I)

- Historical data collection from each facility
  - Average LOS in Hospital by payor group
  - Average number of Medicare skilled days by payor group
  - Percent not returning to SNF by payor group
  - Average reimbursement per payor group
- Educating/Training staff:
  - When to call for telemedicine intervention
  - How to use the equipment
  - How to contact telemedicine service

10

Implementation (Phase I) Continued

- Physician education and training
  - **Medical Director**
    - One of the "keys" to a successful program
    - Needs to reach out to PCPs
    - Designate the Telemedicine Service as the "covering service"
  - **Local primary care physicians**
    - Need to explain the program
    - Need to discuss reimbursement ramifications
    - Need to clearly outline relationship with telemedicine service
      - **Communication between Telemedicine practice and PCPs is critical for success**

11

Service Phase (Phase II)

- Telemedicine Services provided for 12-month period
- Data collected during actual telemedicine visit
- TRECS reviewed data monthly
- Regular zoom meetings with NHAs and DONs
  - Small group zoom calls
  - Individual facility zoom calls
- Regular interaction with corporate office
  - Relayed info to regional managers

12

Findings from Florida Telemedicine Study

- A total of 7,775 audio calls were received
- Of those, 5,865 (75.4%) were audio only
- Of those,1,910 (24.6%) were escalated to video calls between the physician and resident
- Of those video calls, 563, 29.4% calls and 7.2% of total calls were classified as having avoided a hospital admission as a direct result of the telemedicine intervention.

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Avoided Hospital Admissions

- The telemedicine physicians were all experienced nursing home physicians
- The software program classified all telemedicine visits into several categories based on diagnosis and other key factors documented by the physician
- Those identified as "most likely of having avoided a hospitalization" were reviewed by a two-physician panel
- Panel's finding were used to identify the final number of avoided hospital admissions as a direct result of the telemedicine intervention.

14

Avoided Admissions Used to Estimate Financial Analysis

- Facility specific information, gathered in the Phase I applied to calculate individual facility economic impact
- Positive impact of Medicare avoided admissions
- Negative impact of Medicaid avoided admissions
- Estimated financial impact for SNFs =

Positive Impact of Medicare – Negative Impact of Medicaid

Facility can also bill Medicare for "Originating Fee" for every telemedicine call. For this project, 1910 telemedicine calls at $20 each = $38,200

15

Overall Findings of Study

- Based on 563 avoided admissions, Medicare saved an estimated **$1,137,271**
- The 28 participating facilities gained an average of **$40,616** of "new revenue
- Range of new revenue from **$133,984** to **$1,656**
- Of all 28 participating facilities, only 2 did not prevent enough avoided admissions to generate new revenue sufficient to pay the annual costs of maintaining the telemedicine service after grant funding ended

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Key Success Factors for a Successful Telemedicine Service

- **Corporate Level:**
  - Commitment to make telemedicine a priority
  - Corporate "Champion" to oversee
- **Facility Level:**
  - Solid management team (NHA/DON)
  - Strong and supportive Medical Director
  - Support from nursing staff (with RN Champions)
  - Support from local PCPs
- **Select a proven telemedicine practice**
  - Responsive and communitive with MD & PCPs

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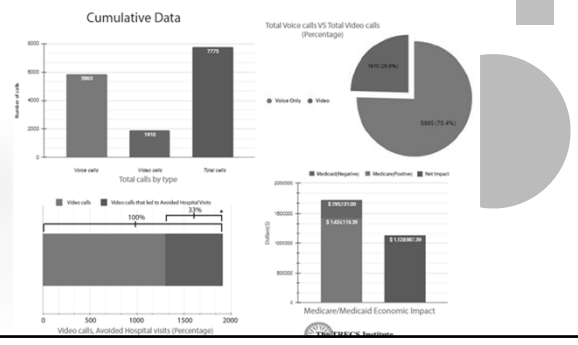
Cumulative Results



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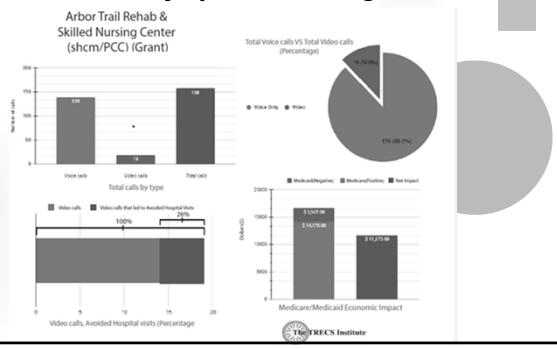
Facility Specific Findings



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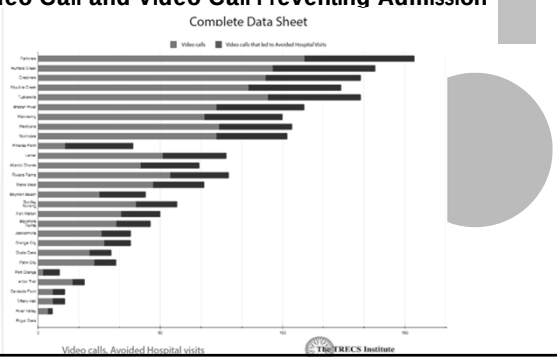
Video Call and Video Call Preventing Admission



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Characteristics of Successful SNFs

- Strong Management Team
  - Checks hospital log regularly
  - Works with nursing staff to assure effective utilization
  - Assures agency nurses are trained
- Strong Medical Director
  - Set's Facility policy that telemedicine service serves as the physician on call for all "off" hours
  - Communicates with telemedicine services and assures effective communication with PCPs
- Strong Nursing Staff
  - Stable nursing staff
  - Telemedicine "Champions" in nursing staff

21

Telemedicine Services in SNFs

22

Questions? Please reach out to me!

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23

COPING WITH HEALTHCARE BURNOUT

PRESENTED BY:
Dr. Christine Cauffield
CEO, LSF Health Systems

1

Great Resignation Statistics

- 48 million people quit their jobs in 2021
- 8.6 million people quit their jobs in 2022 (Jan-Feb)
- 4.26 million people quit their jobs in January 2022
- 4.35 million people quit their jobs in February 2022
- 34% of the U.S. workforce is engaged at work
- 94% of American Retailers are experiencing issues with managing job vacancies

2

2

Great Resignation Statistics (continued)

- 55% of workers in America are planning on looking for new jobs
- Gen Z-ers are the group that feels the least appreciated and underpaid
- 41% of the global workforce is considering quitting their jobs
- 46% of the world's workforce plans on relocation this year

3

3

QUESTION

Which region has the highest job resignations in 2022?

1. Northeast
2. South
3. Midwest
4. West

4

4

Regions with the highest job resignations in 2022

Region	Totals	Average Quit Rate
Northeast	1,174,000	2.20%
South	3,500,000	3.10%
Midwest	1,858,000	2.85%
West	2,078,00	3%
Source: BLS.gov		

5

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CRISIS FATIGUE: EFFECTS OF COVID-19 AND WORLD EVENTS

- Profound unprecedented times
- Grief, Anxiety, Isolation, Unemployment, Depression and Fear
- Crisis Fatigue: Chronic threats to safety and well being

6

6

CRISIS FATIGUE: HEALTH IMPACT

Health Impact of Crisis Fatigue

- Fight or Flight Response
- Adrenal glands flood body with cortisol and adrenaline
- Chronicity = deleterious health effects
- Depression, weight gain, insomnia, relationship issues, exhaustion and burnout

7

7

PANDEMIC DISTRUPTION

- Working from home
- Juggling home schooling
- Isolation from friends, loved ones, colleagues
- Loss of job
- Conflicting media stories/media overload
- Relationship change with partner, children

8

8

HIGH RISK: HEALTHCARE WORKERS

Burnout: psychological state marked by exhaustion, lack of enthusiasm, inability to cope with stress

Symptoms:

Emotional Exhaustion

Numbness

Irritability

Anger

Sleep Disturbance

9

9

RESULTS of BURNOUT

High Blood Pressure

Depression

Suicidal Ideation

Post Traumatic Stress Disorder

Substance Abuse

Relationship Damage

Medical Errors

10

10

QUESTION

A year before COVID, Healthcare worker burnout cost to healthcare system was:

1. 560M
2. 1.2 B
3. 3.3B
4. 4.6B

11

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AMA NATIONAL STUDY: 20,947 HEALTHCARE WORKERS

- 61% high fear of COVID exposure to self/family
- 38% Depression and Anxiety
- 43% Work Overload
- 49% Burnout

12

12

AMA STUDY: GENDER DIFFERENCES

- Males: 41.5% Burnout
- Females: 50% Burnout
- Males: 26.4% Anxiety/Depression
- Females: 39.3% Anxiety/Depression
- Males: 37.7% Work Overload Stress
- Females: 42.2% Work Overload Stress

13

13

QUESTION

TRUE or FALSE?

Highest rates (60%) of burnout reported by Allied Health Professionals –

Speech Therapists, Occupational Therapists, Social Workers

14

14

COMPASSION FATIGUE VS. BUROUT

1. Compassion fatigue caused by exposure of traumatic material
Burnout caused by work-related attributes such as the job, coworkers, one's supervisor and poor work culture
2. Compassion fatigue-rapid onset and can be felt after first experience of absorbing one's traumatic material
Burnout emerges over time as work-related issues (lack of resources, long shifts, paperwork overload) pile up
3. Compassion fatigue-impact of helping others
Burnout-describes impact of a stressful workplace
Compassion fatigue has quicker recovery time if managed early
Burnout has longer recovery time

15

15

SELF CARE TO ADDRESS BURNOUT

1. Engage in regular exercise and other restorative activities
2. Spend time with family and friends
3. Identify things you can and can't control at work
4. Monitor inner emotional energy barometer and know when you are running on empty
5. Look for warning signs of burnout and seek professional help when needed

16

16

Nine (9) Factors causing the GREAT RESIGNATION

1. Toxic corporate culture
2. Job insecurity and reorganization
3. High levels of innovation
4. Failure to recognize performance
5. Mental Health response to COVID-19
6. Better work-life balance
7. Higher pay
8. A long-held desire to explore a new career path
9. To care for children or elderly relatives during pandemic

17

17

EMPLOYEE FOCUS ON STABILITY, EMPOWERMENT AND INCLUSION

1. Showing Appreciation
2. Providing Individualized Support
3. Involving Employees In Decision Making
4. Entrusting Employees With New Responsibilities
5. Designate Time and Space for Team Bonding

18

18

Mental Wellness for Staff

1. Provide Mental Health Benefits, EAP
2. Webinars On Self Care
3. Incentivize Wellness Activities
4. Provide List of Resources-Meditation Applications
5. Reduce Ambiguity By Providing Daily/Weekly Goal

19

19

HEALTH SYSTEMS

LSF Health Systems

Questions/Comments

20

GAPNA
Gerontological Advanced Practice Nurses Association

Specialized Co-Management Care for People Living With Dementia

Michelle Moccia, DNP, ANP-BC, GS-C
Michelle Panlilio, DNP, GNP-BC

The John A. Hartford Foundation ADC Alzheimer's and Dementia Care PROGRAM UCLA Health

1

Financial Disclosures

- Michelle Moccia, DNP, ANP-BC, GS-C
  - Genentech
- Michelle Panlilio, DNP, GNP-BC
  - Biogen, Eisai, Genentech, & Sunbird Bio

2

Speakers

- Michelle Moccia, DNP, ANP-BC, GS-C
  - Independent Gerontology Consultant

- Michelle Panlilio, DNP, GNP-BC
  - UCLA Alzheimer's and Dementia Care Program
  - National Lead Dementia Care Specialist

3

Learning Objectives

At the end of this presentation, learners will

- Describe the benefits of a co-management comprehensive dementia care model across settings and during transitions of care.
- Identify at least three assessment practice changes of persons living with dementia and their caregivers.
- Name at least three geriatric management approaches to persons living with dementia and their caregivers.

4

Polling question: What best describes your place of employment?

A. Long Term Care/Skilled Nursing Facility
B. Assisted Living/Board & Care Facility
C. Hospital
D. Independent Living
E. Continuum of Care
F. Home care
G. Group Home
H. Other

5

Case Study

6

The patient: Mr. Harold

- 82 y/o year old Caucasian male with Late Onset Alzheimer's Dementia with an estimated onset x 4 years
- Lives alone in NY
- Past Medical History
  - Late Onset Alzheimer's Dementia
  - Anxiety
  - Depression
  - Hypertension
  - Cataracts
  - Hyperlipidemia

7

Medication List

- Donepezil 10 mg po qhs
- Cholecaliferol 2,000 units po qd
- Simvastatin 40 mg po qhs
- Trazodone 25 mg po qhs
- Vitamin b-12 1,000 mcg qd

8

Psychosocial History

Retired	• Congressman and attorney
Family Unit	• Single • 1 brother (Frank) and 2 nieces (Jeannie and Christina)
Sexuality	• Family believed he was homosexual
Finances	• Managed independently • Pension, SS, savings, investments, and long-term care insurance

9

Everything is not what it seems…

Family vacation visit to NY

Family concerns:

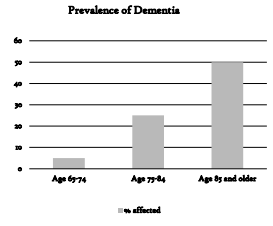
Weight loss	Forgetful	Personality changes	Living alone	Unpaid bills	Lack of social network

10

The Clinical Problem: Late Onset Alzheimer's Dementia

11

The Gray Plague



6.5 million Americans have Alzheimer's

By 2025, it will be **7.2 million**

Higher prevalence in African Americans (much higher) and Latinos

12

Stages of Dementia

Mild	Moderate	Severe
Difficulty with:	**Difficulty with:**	**Difficulty with:**
• Finances • Driving • Medications • ↓ insight & judgement • Short term memory • Social withdrawal • Mood changes	• Instrumental ADLs • Some ADLs • Gait and balance • Disorientation • Worsening memory • Getting lost • Repeating questions • Delusions/Agitation	• ADLs • Mobility • Swallowing • ↓ verbal output • Remote memory • Recognizing family • Apathy/depression • Sundowning

13

COMPREHENSIVE CARE

14

New Models of Comprehensive Care for Dementia

Community-based-Implemented at CBOs or home by SWs, RNs, MFTs

- BRI Care Consultation
- MIND at Home (Hopkins)
- The Care Ecosystem (UCSF)

Health System-based-Implemented in health systems by NP or MD-led staff

- Indiana University Healthy Aging Brain Center (HABC)
- The UCLA Alzheimer's and Dementia Care Program (UCLA ADC)
- Integrated Memory Care Clinic (Emory)

15

How Comprehensive Care Models Differ

STAFFING | BASE OF OPERATIONS | SCOPE OF SERVICES | INTENSITY | COST

EFFICACY OR EFFECTIVENESS (PRAGMATISM) | POTENTIAL ROI | LEVEL OF EVIDENCE

16

The UCLA Alzheimer's and Dementia Care Program

17

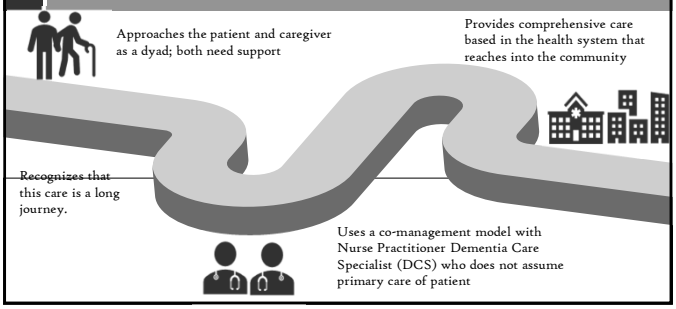
The UCLA Alzheimer's and Dementia Care Program

Mission: To partner with families, physicians, and community organizations to:

- maximize person living with dementia function, independence, and dignity,
- while minimizing caregiver strain and burnout
- Reduce unnecessary costs

18

The Program: A Dyad approach



19

The UCLA Alzheimer's and Dementia Care Program Benefits

- *Co-Management* model of dementia care
- Works with primary care and specialty physicians to care for patient-caregiver dyads by
  - Conducting in-person needs assessments
  - Developing and implementing individualized dementia care plans
  - Monitoring response and revising as needed
  - Providing access 24 hours/day, 365 days a year

20

20

Community-Based Organizations (CBOs) Partnerships

Services for patients:

- Adult day services
- Programs for enhancing brain health (for early stage memory loss)

Services for families/caregivers:

- Education (workshops, classes, informational sessions, handouts)
- Counseling and peer-to-peer support
- Case management
- Legal and financial counseling
- Support groups

21

21

What is a Dementia Care Specialist?

- Advance Practice Provider
  - Nurse Practitioner, Clinical Nurse Specialist (with prescribing authority), Physician Assistant
- Healthcare system-based, outpatient clinic setting
- Dementia Care Co-Management along with the individual's medical team (e.g., Primary Care, Neurologist, Psychiatrist)
- Each DCS follows approximately 250 patients

22

22

DCS Training

- GAPNA: 22 on-line training modules created by expert clinicians
- To precede in-person skills training
  - Provides additional knowledge in order to provide high quality dementia care management
  - Convenient, complete at your own pace format
  - Continuing education hours
  - Supported by the JAHF

23

ADC Program: Core Elements

- Staffing
  - Advance Practice Nurse
  - Medical Director
  - Dementia Care Assistant
  - Program Manager
- Longitudinal Dementia Care
- 24/7 coverage
- Infrastructure and support
  - Access to EHR
  - EHR modified to support dementia care work
  - Linkages to community-based services

24

Comprehensive Dementia Care Management

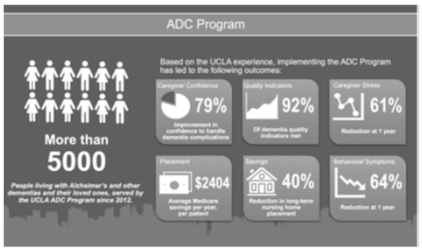
- Focused on the patient and caregiver "dyad"
  - Continuous monitoring and assessment
  - Ongoing "age-friendly" care plans
  - Medication management
  - Psychosocial Interventions for dyad
  - Coordinated care
    - Transitions of care (palliative care, hospice)
    - Emergency Room Visits
    - Inpatient hospitalizations

25

25

ADC Program Outcomes

Type of Care Impact	
Hospitalizations	▼ 12%
ED visits	▼ 20%*
ICU stays	▼ 21%
Hospital days	▼ 26%*
Hospice in last 6 months	▲ 60%*



* p<.05
Based on NORC external evaluation of CMMI Award using fee-for-service claims data and UCLA ACO data September 2015- September 2017

26

Mr. Harold establishes care with ADC program

Initial Assessment

27

Cognitive Assessment

Imaging	MMSE: 23/30	MOCA: 22/30
• MRI BRAIN: No evidence of acute ischemia/infarct, intracranial hemorrhage, mass effect, or hydrocephalus. • CT Brain: No acute intracranial hemorrhage, mass effect, or hydrocephalus.	• Missed: 1 minute recall items, date, day of the week, city, & state	• Missed: 4 items for recall, date, day of the week, city, state,

28

Functional Assessment

Task	No Help Needed	Help Needed	Who Helps?
Katz ADLs			
Feeding	●		
Getting from bed to chair	●		
Getting to the toilet	●		
Getting dressed	●		
Bathing or showering	●		
Walking across the room (includes using cane or walker)	●		
Lawton IADLs			
Using the telephone		●	
Taking your medicines		●	
Preparing meals		●	
Managing money (like keeping track of expenses or paying bills)		●	
Moderately strenuous housework such as doing the laundry		●	
Shopping for personal items like toiletries or medicines		●	
Shopping for groceries		●	
Driving		●	
Climbing a flight of stairs		●	
Getting to places beyond walking distance (e.g. by bus, taxi, or car)		●	

29

Neuropsychiatric Assessment

- Neuropsychiatric Symptoms
  - Depression
    - Cornell Scale for Depression in Dementia: 11/38
  - Neuropsychiatric Inventory Scale (NPI-Q)
    - *** Indicates positive scores on behavioral disturbance

NPI-Q	
Delusions * **	**Disinhibition *** **
Hallucination	Euphoria/Elation
Agitation * **	Irritability
Depression	Motor Disturbances
Anxiety	**Appetite Changes *** **
Apathy	Sleep Disturbances

30

Poll

- Do you use a tool to evaluate caregiver stress and depression?
  - Yes
  - No
  - N/A (Do not have interactions with caregivers)

31

The Caregiver: Niece Jeannie

- Relationship:
  - Niece from Los Angeles, CA
  - DPOA for health and finances
- Distress & Strain
  - PHQ-9: **2**
  - Modified Caregiver Strain Index: **14/26**

32

Jeannie's Testimony (Interval History)

New Safety Concerns Emerge

- Wandering
- Agitation & Aggression
- Disinhibition
  - Sexually-inappropriate comments to female staff
  - Food handling in cafeteria

33

Poll

- The organization where I work invests in LGBTQ+ education program.
  - Strongly agree
  - Agree
  - Neither agree or disagree
  - Disagree
  - Strongly disagree

34

Poll

- During the initial resident's intake, how likely is the patient asked their preferred pronoun (she/her, him/his, they/them)?
  - Highly likely
  - Very likely
  - Somewhat likely
  - Not at all likely

35

LGBTQ+ older adults

By 2030, estimated 7 million LGBTQ+ adults 65 or older in the U.S. (National Resource Center on LGBT Aging, 2013).

The plus (+) is added to be inclusive of other identities along the LGBTQ+ spectrum

Sexual & Gender Minority "SGM" - inclusive term (NIH)

Designated as health disparity population for NIH and AHRQ research Sexual & Gender Minority Research Office | DPCPSI (nih.gov)

36

LGBTQ+ Healthcare concerns

Single, live alone, no children	Lack of family involvement	Financial insecurity	Provider knowledge gaps
Discrimination, pro vide bias, negative experience	Deter seeking healthcare – poor physical health	Isolation, depression, smoke, substance abuse	Go back in the closet

Legacy Giving and Facts on LGBT Aging Infographics (sageusa.org)

37

Where do we go from here? Management

38

Care Plan Recommendations

- Medical Management
  - Late onset Alzheimer's
  - Depression/Anxiety
  - HTN
  - HLD
  - Advance Care Planning
  - Referral to Psychiatry (after a few years)

39

Care Plan Recommendations (cont.)

- Behavioral Management
  - Family discussions about elevating his level of care (memory care)
  - Coordinating care with ALF/memory care
  - Behavioral Modifications
- Social Management (For the caregiver)
  - Support Groups
  - Private Counseling
  - Case Management

40

Advance Care Planning

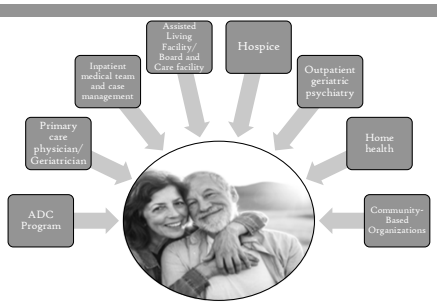
DPOA
- Niece Jeannie

Goals of Care
- Stay at his facility and be close to family

POLST Form
- Full code (at the time of initial assessment)

41

Coordinating Dementia Care takes a village...



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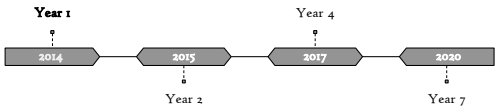
Long Term Management

43

1 year after establishing care with ADC

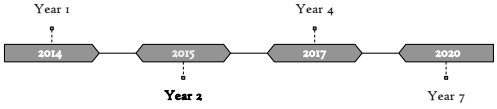
- Worsening behavioral issues
  - Behavioral modifications for the family and staff
- ADC coordination
  - Psychotropic medications
  - Transition to memory care
  - Grief Counseling for Jeannie



44

2 years after establishing care with ADC Program…

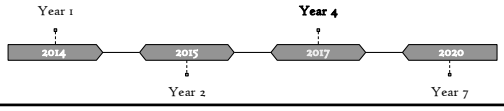
- Fall in memory care, hospitalized for hip fracture and delirium
- ADC coordination
  - Psychotropic medications
  - Inpatient medical/surgical team and case management
  - Referral to geriatric psychiatry
  - Rehabilitation staff



45

4 years after establishing care with the ADC Program…

- Worsening behavioral issues
  - Verbal threats to staff and refusing care
- Medications:
  - Donepezil 10 mg po qhs
  - Namenda 10 mg bid
  - Mirtazapine 15 mg po qhs
  - Gabapentin 100 mg bid
  - Olanzapine 5 mg po bid
- Inpatient psychiatric hospitalization for 2 weeks

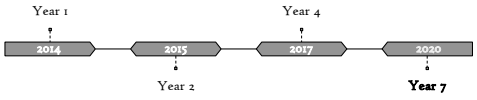


46

7 years later after establishing care: The final transitions of care

"Our ultimate goal after all, is not a good death but a good life to the very end" (Atul Gawande)

- Significant cognitive and functional decline
  - Moved to Board and Care Facility
  - Hospice care for 6 months
  - Much of the last few months were spent with family, passed away peacefully



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Documentation and Billing

48

Billing: 99483 Code

- Initial Consult
  - 99483 Cognitive Assessment and Care Planning - Permanently added to the Medicare Telehealth list
  - 99354: For extended office visit (30 min increments), time beyond the primary visit code

Service elements of CPT® code 99483
Cognition-focused evaluation, including a pertinent history and examination of the patient
Medical decision making of moderate or high complexity (defined by the E/M guidelines)
Functional assessment (for example, Basic and Instrumental Activities of Daily Living), including decision-making capacity
Use of standardized instruments to stage dementia
Medication reconciliation and review for high-risk medications, if applicable
Evaluation for neuropsychiatric and behavioral symptoms, including depression and including use of standardized instruments
Evaluation of safety (for example, home safety), including motor vehicle operation, if applicable
Identification of caregiver(s), caregiver knowledge, caregiver needs, social supports and the willingness of caregiver to take on caregiving tasks
Development, updating or revision, or review of an Advance Care Plan
Creation of a care plan, including initial plans to address any neuropsychiatric symptoms and referral to community resources as needed (for example, adult day programs and support groups); the care plan must be shared with the patient and/or caregiver at the time of initial education and support

49

Billing: Ongoing care

99211-99215	99441-99443	99490	99358
In-person or telemedicine	Telephone Visits	Chronic Case Management	Non Face-to-face Prolonged Services (30 mins)

50

ADC Program Dissemination

51

The Power of Philanthropy

The John A. Hartford Foundation

2019

3-year grant to:

- Implement the UCLA ADC program in 8-10 health systems outside of UCLA
- Work with GAPNA to educate nurse practitioners to fulfill DCS roles
- Work with partners to promote payment changes

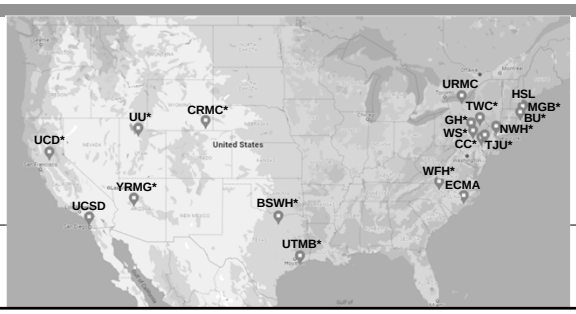
2022

3-year grant to:

- Create ADC Dissemination Center at UCLA
- Create a National Dementia Care Learning Collaborative
- Implement the UCLA ADC program in an additional 50 health systems beyond UCLA

52

Dissemination Sites



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ADC Program Dissemination

- Education Development Center (EDC)
- American Geriatric Society
- GAPNA
- Alzheimer's Association
- IHI Age friendly health Systems
- CDC
- LEAD Coalition
- Milken Alliance

54

What did we learn?

- "Usual care" is not enough
- A co-management model of dementia care supports the patient and their family through the journey
- Billing codes to support a co-management model of dementia care has come a long way, however, is still a work in progress
- Providing dementia care through a medical model can reduce expenses for healthcare systems and the nation

55

Questions?
Thank you!

56

References/Resources

- 2022 Alzheimer's disease facts and figures. Alzheimer's Dementia. 2022 Apr;18(4):700-789. https://doi.org/10.1002/alz.12638. Epub 2022 Mar 14. PMID: 35289055.
- Alzheimer's Association. Care planning. Includes links to Cognitive Assessment and Care Planning information. Available at: https://www.alz.org/professionals/health-systems-clinicians/care-planning
- The John A. Hartford Foundation. Age-Friendly care. https://www.johnahartford.org/grants-strategy/current-strategies/age-friendly/age-friendly-care
- Medicare. Chronic care management. https://www.medicare.gov/coverage/chronic-care-management-services
- Sexual & Gender Minority Research Office | DPCPSI (nih.gov) accessed 9/15/2022
- Caceres BA. (2019). Care of LGBTQ older adults: What geriatric nurses must know. *Geriatric Nursing*, Volume 40, Issue 3: Pages 342-343. https://doi.org/10.1016/j.gerinurse.2019.05.006.
- Alvarado, LA, Dorsen C, Jere C, Woerner L, Jones E, Miner SM. (2020). Designing a program to serve older adults LGBTQ+ population in home health care. *Home Health Care Now*. Vol 38: No 4: pp 209-214.
- SAGE (Services & Advocacy for LGBT Elders). 2021. Facts on LGBT aging. https://www. sageusa.org/resource-posts/facts-on-lgbt-aging (accessed October 17, 2022).
- Lees Haggerty K,Campetti R, Stoeckle RJ, et al. Dissemination of a successful dementia care program: Lessons from early adopters. J Am Geriatr Soc. 2022;70(9):2677-2685. doi:10.1111/jgs.17887
- Reuben DB,Evertson LC, Jackson-Stoeckle R, et al. Dissemination of a successful dementia care program: Lessons to facilitate spread of innovations. J Am Geriatr Soc. 2022;70(9):2686-2694. doi:10.1111/jgs.179002694REUBENET AL.

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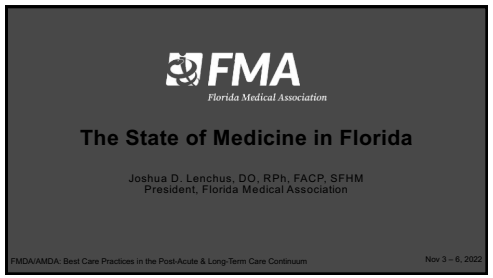
FMA
Florida Medical Association
The State of Medicine in Florida
Joshua D. Lenchus, DO, RPh, FACP, SFHM
President, Florida Medical Association
FMDA/AMDA: Best Care Practices in the Post-Acute & Long-Term Care Continuum
Nov 3 – 6, 2022

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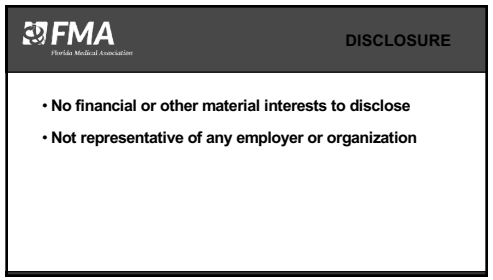
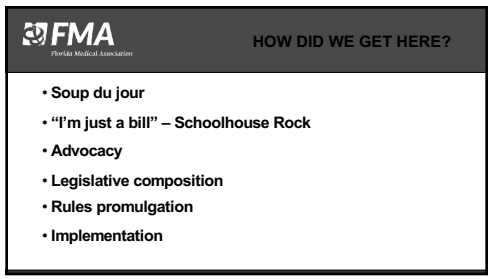

FMA
Florida Medical Association
DISCLOSURE
• No financial or other material interests to disclose
• Not representative of any employer or organization

2


FMA
Florida Medical Association
HOW DID WE GET HERE?
• Soup du jour
• "I'm just a bill" – Schoolhouse Rock
• Advocacy
• Legislative composition
• Rules promulgation
• Implementation

3

WHERE ARE WE NOW?

- **Legislation that passed**
- **Legislation that did not pass**
- **FMA policy**

4

COVID-19 Liability Protection Extension PASSED

SB 7014 by Sen. Burgess and HB 7021 by Rep. Burton

"COVID-19-related claim": civil liability claim against HCP arising from:

- Diagnosis (dx)/Treatment (tx) of, or failure to dx/tx, a person for COVID-19;
- Provision of novel or experimental COVID-19 tx;
- Transmission of COVID-19;
- Delay/cancellation of surgery/procedure/test/appt based on a HCP's interpretation/application of gov't-issued health standards/authoritative guidance specifically relating to the COVID-19 PHE;
- Act/omission with respect to an emergency medical condition (s. 395.002), result of a lack of resources caused by the COVID-19 pandemic; or
- Provision of tx to a patient diagnosed with COVID-19 whose injuries were directly related to an exacerbation of preexisting conditions by COVID-19.

https://www.flsenate.gov/laws/statutes/2021/768.381

5

➢ Affirmative defenses: compliance with government-issued health standards relating to COVID-19…

- (a) Inc. those of preservation/prioritization of supplies/materials/equipment;
- (b) Or to infectious diseases in the absence of those applicable to COVID-19;
- (c) Was not possible due to supplies/materials/equipment/personnel shortages;
- (d) Was not possible if the applicable standards were in conflict; or
- (e) Was not possible due to insufficient implementation time.

➢ One-year extension, to June 1, 2023.

https://www.flsenate.gov/laws/statutes/2021/768.381

6

Drug-related Overdose Prevention PASSED

SB 544 by Sen. Boyd and HB 731 by Rep. Caruso

- Naloxone ordering and dispensing by pharmacist
- ROA: auto-injection or intranasal spray
- Civil and criminal liability protections

https://www.flsenate.gov/Session/Bill/2022/544/BillText/er/PDF

7

Department of Health PASSED

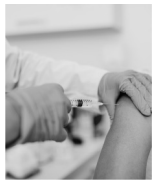
SB 768 by Sen. Rodriguez and HB 693 by Rep. Drake

- Multiple licensure requirements
- Nomenclature changes
- NICA

https://www.flsenate.gov/Session/Bill/2022/768/BillText/er/PDF

8

Administration of Vaccines PASSED



SB 1892 by Sen. Burgess and HB 1209 by Rep. Tuck

- Pharmacy tech-administered vaccines and immunizations
- Adults only
- Pharmacist supervision
- Updated CDC Adult Immunization Schedule

https://www.flsenate.gov/Session/Bill/2022/1892/BillText/c1/PDF

9

Expansion of Telehealth PASSED

HB 17 by Rep. Fabricio and SB 312 by Sen. Diaz

- Historical prohibition on CS prescribing
- 7/1/22: Schedule III, IV, and V (Schedule II)
- Payment parity

https://www.flsenate.gov/Session/Bill/2022/312/BillText/er/PDF

10

Emergency Medical Care for Minors PASSED

HB 817 by Rep. Masullo and SB 1114 by Sen. Bradley

- "Parental Bill of Rights", 2021 session
- Treating minors w/o written parental consent, specifically in an emergency setting
- Effective 7/1/22, able to provide emergency medical treatment to minors

https://www.flsenate.gov/Session/Bill/2022/1114/BillText/Filed/PDF

11

Medical Education Loan Forgiveness PASSED

- Medical Education Reimbursement and Loan Repayment Program (F.S. 1009.65)
- $6M medical education student loan repayment
- Already in statute, never funded
- Physician and non-physician HCPs
- Up to $20K/yr

http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=1009.65&URL=1000-1099/1009/Sections/1009.65.html

12

Step-Therapy Protocol PASSED

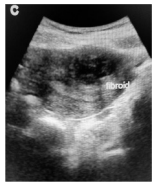
HB 459 by Rep. Willhite and SB 730 by Sen. Harrell

- Increased ability against step therapy protocols
- Publish step therapy protocol exemption

https://www.flsenate.gov/Session/Bill/2022/730/BillText/Filed/PDF

13

Uterine Fibroid Research and Education PASSED



HB 543 by Rep. Omphroy and SB 1010 by Sen. Gibson

- Centralized database, collecting info on fibroids
- Implementing rules forthcoming

https://www.flsenate.gov/Session/Bill/2022/1010/BillText/c2/PDF

14

Wrongful Death Bill KILLED

SB 262 by Sen. A. Rodriguez and HB 6011 by Rep. Roach

- Increased med mal rates, increased healthcare costs
- Recovery of noneconomic damages in med mal wrongful death claim
- Claim: certain patients would receive a lower standard of care

https://www.flsenate.gov/Session/Bill/2022/262/BillText/Filed/PDF

15

FMA
Florida Medical Association

FMA

PUBLIC POLICY COMPENDIUM

16

FMA
Florida Medical Association

FMA Policy Supports:
P 285.015, Medical Directors in Post-Acute Care Facilities

- **Medical directors of post-acute care facilities, including but not limited to adult living facilities, nursing homes, rehabilitation facilities, skilled nursing units, and subacute care units, should be physicians licensed under Florida Statutes 458 and 459; and further opposes any attempts to abolish mandates that only physicians licensed under F.S. 458 and F.S. 459 be medical directors at post-acute care facilities.**
  - Res 96-12, A-1996, Reaffirmed HOD 2006, 2014, 2022

17

FMA
Florida Medical Association

Pending FMA Policy:
Resolution 22-105, Minimal Credentialing in Post-Acute and Long-Term Care Medicine

- **House Action: Referred to the Board of Governors for study and report back**
  - RESOLVED, That the Florida Medical Association promotes a professional standard that all health care providers practicing in the Post-Acute and Long-Term Care (PALTC) setting will present, at a minimum, proof of identification, i.e., a current government issued photo identification (e.g., driver's license), a current state issued professional license, and, as appropriate, a current DEA certificate.

18

Pending FMA Policy: Resolution 22-106, Requirements for Minimum Education Standards for Medical Directors

- **House Action: Referred to the Board of Governors for study and report back**
  - RESOLVED, That the Florida Medical Association support and encourage all initiatives (Federal, State and Local) to promote minimum education standards for physicians serving in the role of Medical Director in Post-Acute and Long-Term Care, to include the completion of a specified number of initial and maintenance education credits within a defined time period.

19

WHERE ARE WE GOING?

- **State**
- **Federal**

20

Looking Ahead: 2023 Legislative Session

2023 Legislative Session:

March 7 – May 5, 2023

Committee weeks will begin in December!

21

FMA Florida Medical Association

Telehealth reprise:

- Payment Parity
- Allow Insurers to Pay for Audio Only
- Require Fee for Certificate Holders

22

FMA Florida Medical Association

Insurance Issues

Eliminate Insurance Company Barriers to Care

- Definitive time frames for prior authorization requests
- Remove prior authorization for low value drugs/services
- Require transparency of prior authorization requirements
- Protections of patient continuity of care
- Automation to improve prior authorization and process efficiency
- Step therapy
- Retroactive denial

23

FMA Florida Medical Association

2023 Potential Legislation: "Protecting DNA Privacy Act"

- Protects DNA samples and the results of DNA analysis from unauthorized transfer or disclosure.
- Inadvertently affects physicians who transfer "DNA samples" to third parties.
- Unlawful to do so without express consent of patient.
- Would be a second-degree felony to transfer blood, hair, urine, etc. to third party for disposal without patient consent.
- FMA is working on legislative solution

https://flsenate.gov/Session/Bill/2021/833/BillText/er/PDF

24

2023 Potential Legislation: "Infused Medications"

- Mandatory coverage for certain cancer treatment drugs
- Prohibition on "brown-bagging"
- Regulation of "white-bagging"
- Ensure physician control over home infusion

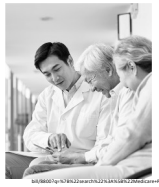
25

Federal Legislation

- Impending Medicare Cuts
- No Surprises Act Regulation Challenged Again in Court
- Acute Hospital Care at Home Program

26

Impending Medicare Cuts



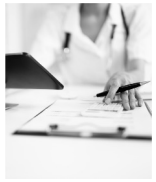
- Failed Medicare payment system
- Jan 1, 2023: 8.42% cut to Medicare physician payments
- Commercial copycats
- Florida would be hard hit, comparatively
- HR 8800 - Supporting Medicare Providers Act of 2022
  - Rep. Bera, Ami [D-CA-7] (Introduced 09/13/2022) – 72 cosponsors

https://bera.house.gov/media-center/press-releases/bera-and-bucshon-lead-group-representatives-seeking-input-medicare

https://www.congress.gov/bill/117th-congress/house-bill/8800?q=%7B%22search%22%3A%22hr+Medicare+Providers+Act+of+2022%22%2C%22Medicare%22%2C%22Providers%22%2C%22Act%22%2C%22of%22%2C%22hr%22%7D&s=1&r=1

27

No Surprises Act Regulation Challenged Again in Court



- Consolidated Appropriations Act of 2021
- No Surprises Act – Dec 27, 2020
- Addresses surprise medical billing
- Forced arbitration

28

- Texas Medical Association lawsuit
- Challenge: arbitration process
- CMS rule revision
- TMA files suit again
- Rates are at issue
- More to come

29

Hospital Inpatient Services Modernization Act

- Rep. Wenstrup, Brad R. [R-OH-2]
  - (HR 7053 Introduced 03/09/2022) – 29 cosponsors
- Sen. Carper, Thomas R. [D-DE]
  - (S 3792 Introduced 03/10/2022) – 7 cosponsors
- Acute Hospital Care at Home Program extension during PHE
- Hospital without Walls evaluation

30

WHERE ARE WE GOING?

- How can we affect change?

31

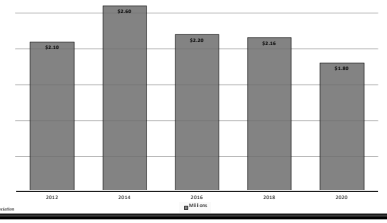
2022 Election Preview

2022: Redistricting

Election for everyone – legislative and executive branches

32

How much does the FMA PAC raise each election cycle?



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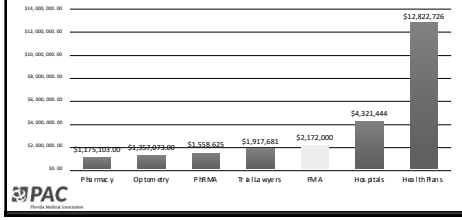
How much do others raise?



PAC
Florida Medical Association

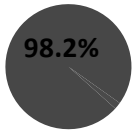
34

FMA Florida Medical Association — WHERE ARE WE GOING?

- **How impactful are we?**

35

2020 Election Results



- **98.2 %** FMA PAC endorsed candidates won their elections in 2020
- **114 out of 116** FMA PAC endorsed candidates won their elections

PAC
Florida Medical Association

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FMA
Florida Medical Association

Thank you!

Without broad physician and medical staff support, we couldn't do what we do.

jlenchus@yahoo.com
954-817-5684 (c)

www.flmedical.org

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DELIRIUM

Session 112
Managing Delirium in Post-acute and Long Term Care

Greg Sullivan, MD, FAPA
Best Care Practices in the Post-Acute and Long-Term Care Continuum 2022 | Orlando, Florida

1

Disclosure

- **Geriatric Psychiatrist**
  Consultation-Liaison Psychiatry, Mental Health and Behavioral Sciences
  James A. Haley Veterans' Administration Medical Center
- **Assistant Professor of Psychiatry**
  Program Director, Geriatric Psychiatry Fellowship
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  University of South Florida Morsani College of Medicine

Summaries, recommendations, and claims made hereafter represent the personal opinion of the presenter as based upon an assessment of the salient literature. Unless otherwise explicitly stated, the contents of this presentation do not represent the opinion of either the Veteran's Health Administration or the University of South Florida.

There are no relevant financial relationships to disclose.

2

Objectives

- Summarize the most common clinical presentation of delirium
- Identify both common and rare contributors to the development of delirium
- Describe the role of structured delirium screening instruments in PALTC
- Review pharmacologic and non-pharmacologic management of delirium

3

Delirium defined

"...an acute neuropsychiatric disorder... of impaired consciousness... characterized by generalized impairment of cognition, with inattention as its cardinal feature, but also involves a range of noncognitive symptoms affecting motor behavior, sleep-wake cycle, thinking, language, perception, and affect." [1]

4

Other terms used

- Acute...
  - ...brain failure
  - ...brain syndrome
  - ...dementia
  - ...organic psychosis
  - ...organic reaction
  - ...organic syndrome
  - ...reversible psychosis
  - ...secondary psychosis
- Cerebral insufficiency
- Confusional state
- Dysergastic reaction
- Encephalopathy
- Exogenous psychosis
- Infective-exhaustive psychosis
- ICU psychosis
- Metabolic encephalopathy
- Oneiric state

5

DSM-5 Diagnostic Criteria

- A **disturbance in attention** (i.e., reduced ability to direct, focus, sustain, and shift attention) **and awareness** (reduced orientation to the environment).
- The disturbance **develops over a short period of time** (usually hours to a few days), **represents a change from baseline** attention and awareness, and **tends to fluctuate** in severity during the course of a day.
- An **additional disturbance in cognition** (e.g., memory deficit, disorientation, language, visuospatial ability, or perception).
- The disturbances in Criteria A and C are **not better explained by another preexisting, established, or evolving neurocognitive disorder** and do not occur in the context of a severely reduced level of arousal, such as coma.
- There is **evidence** from the history, physical examination, or laboratory findings **that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal** (i.e., due to a drug of abuse or to a medication), or exposure to a toxin, or is due to multiple etiologies.

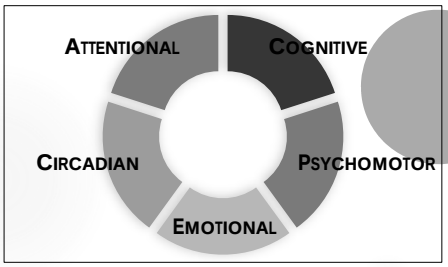
6

Phenomenology (DRS-98)[3]

▶ Core deficits:	Attention	97-100%
	Orientation	76-96%
	ST memory	88-92%
	LT memory	89-96%
	Sleep-wake	92-97%
	Thought proc.	54-79%
	Visuospatial	87-96%
	Motor	24-94%
	Language	57-67%
▶ Non-core	Perception	50-63%
	Delusion	21-31%
	Affect	43-86%

7

Delirium: 5 Core Domains[2]



8

Motor subtypes: [1]

- **Hyperactive** (Greek *phrenitis*)
  - DSM-5: "…hyperactive level of psychomotor activity that may be accompanied by mood lability, agitation, and/or refusal to cooperate with medical care."
  - Excited catatonia sometimes thought to be an extreme variant
- **Hypoactive** (Greek *lethargicus*)
  - DSM-5: "…hypoactive level of psychomotor activity that may be accompanied by sluggishness and lethargy that approaches stupor."
  - Retarded catatonia sometimes thought to be an extreme variant
- **Mixed**
  - Identified as a subtype in the 1990s, so no fancy Greek phrase
  - DSM-5: "…normal level of psychomotor activity even though attention and awareness are disturbed. Also includes individuals whose activity level rapidly fluctuates."

9

Consequences in Acute Care [2]

- Mortality rates 4-65% during the index hospitalization
- Number of delirious days predicts mortality
- Implications of persistent cognitive difficulties

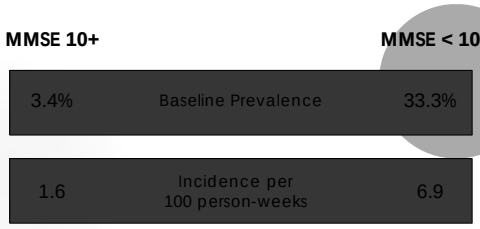
10

Consequences in PALTC [6]

- Delirium may be present in up to 70% of LTC patients
- Mean duration of delirious episodes 1.5 +- 1.4 weeks
- Increased mortality rate
- Increased fall rates
- Increased polypharmacy for management
- Rehospitalization and extended PA LOS

11

Risk Factors in PALTC: **Cognition** [7]



12

Causes: Acute Care

- **I** Infection / Iatrogenic
- **W** Withdrawal
- **A** Acute metabolic (acidosis, alkalosis, electrolytes)
- **T** Trauma (closed head injury, CVA)
- **C** CNS pathology (seizure, stroke, encephalitis)
- **H** Hypoxia, Hypercarbia
- **D** Deficiencies (thiamine, niacin, B12, folate)
- **E** Endocrinopathies (thyroid, glucose, adrenal)
- **A** Acute vascular (HTN crisis, arrhythmia)
- **T** Toxins/drugs
- **H** Heavy metals

13

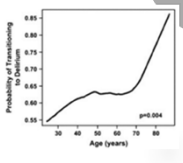
Causes: PALTC

- **D** Drugs
- **E** Eyes, ears, other sensory deficits
- **L** Low O2 states (MI, CVA, PE)
- **I** Infection
- **R** Retention (urine, stool)
- **I** Ictal state
- **U** Under-hydration / under-nutrition
- **M** Metabolic (DM, Electrolyte derangement)
- **(S)** Subdural Hematoma

14

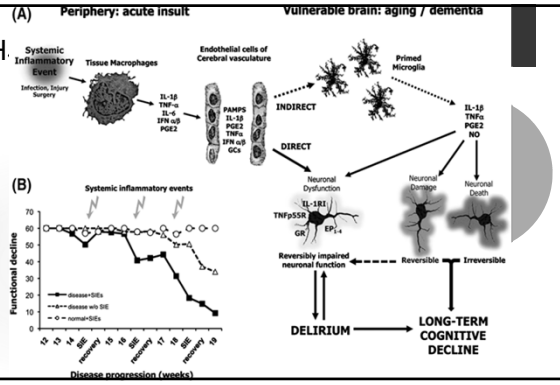
SIHS: Neuronal Aging

- Diminishing physiologic reserve associated with aging
- Changes in proportion of stress-regulating neurotransmitters
- Relative changes in brain blood flow, vascular density
- Blood-brain barrier permeability disruption
- Neuronal loss



15

SIH



16

SIHS: Oxidative Stress

- "Clinical expression of a cerebral metabolic defect"
- Reactive oxygen and nitrogen species cause damage to cell structures, proteins, and DNA
- Brain is highly susceptible due to high lipid content (myelin sheaths), high rates of oxidative metabolism, and low antioxidant capacity
- May reduce ionic gradients thus resulting in cortical spreading depression
- Influx of sodium, calcium; efflux of potassium results in a dramatic release of glutamate and dopamine

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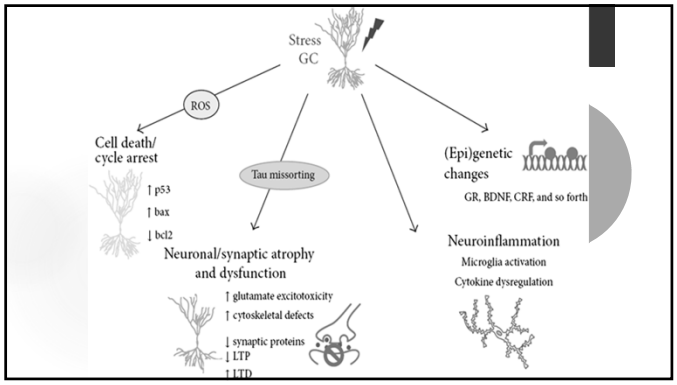
SIHS: Neuroendocrine

- Glucocorticoids (GC) in the normal stress response mobilize energy stores and suppress nonvital functions in an effort to facilitate adaptation and maintain homeostasis
- Dysregulation of the limbic hypothalamic-pituitary-adrenal axis may cause chronic activation of GC receptors
- Highest concentration of GC receptors in the brain is in the hippocampus
- Also creates reactive oxygen species and tau hyperphosphorylation

18



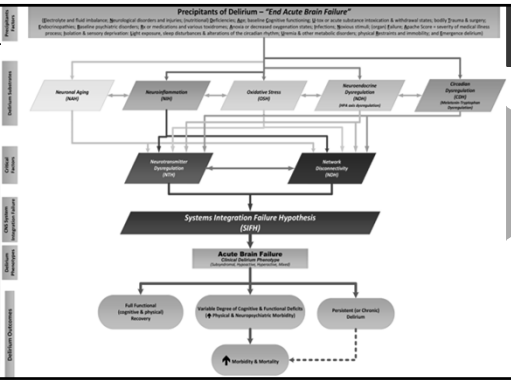
19

SIHS: Circadian dysregulation

- Melatonin production impaired by inflammation
- Deprivation increases both homeostatic and allostatic loads
  - Homeostatic: Buildup of metabolic byproducts
  - Allostatic: Increased sympathetic tone
- Decreased levels of melatonin metabolites found in hyperactive delirium, elevated levels in hypoactive

20

Pat



21

22

Recognizing Delirium

- Cole, et al. graphic

23

Screening assessment

- CAM: Most widely used instrument, based on DSM criteria
  - CAM-ICU: Modified for critically ill, nonverbal patients
  - bCAM: Modified from CAM-ICU for wider validation
- DRS-R-98
- MDAS
- Helfand, et al. 11/02/2020*

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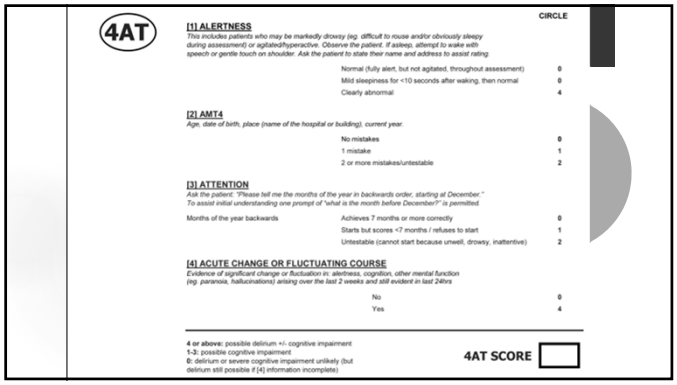

4AT

CIRCLE

[1] ALERTNESS
This includes patients who may be markedly drowsy (eg. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating

Normal (fully alert, but not agitated, throughout assessment)	0
Mild sleepiness for <10 seconds after waking, then normal	0
Clearly abnormal	4

[2] AMT4
Age, date of birth, place (name of the hospital or building), current year.

No mistakes	0
1 mistake	1
2 or more mistakes/untestable	2

[3] ATTENTION
Ask the patient: "Please tell me the months of the year in backwards order, starting at December."
To assist initial understanding one prompt of "what is the month before December?" is permitted.

Months of the year backwards	Achieves 7 months or more correctly	0
	Starts but scores <7 months / refuses to start	1
	Untestable (cannot start because unwell, drowsy, inattentive)	2

[4] ACUTE CHANGE OR FLUCTUATING COURSE
Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg. paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

No	0
Yes	4

4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)

4AT SCORE

25

Clinical examination

- Physical examination
- Neurologic examination
  - Includes sensory examination
  - Assessing for focal neurologic injury
  - Prospective trial in 2011 proposed that the presence of >1 primitive release sign pre- and post-operatively may suggest a higher likelihood of progressing to delirium
  - Myoclonus
    - Positive: muscular contraction
    - Negative: interruption of muscular activity

26

Management: Environmental

- Sleep-wake support
- Prominent role of ambulation
- Social engagement
- Environmental reorientation
- Responding to

27

Management: Pharmacologic

- Every class associated with benefits and risks
  - Sedative-hypnotics
    - Benzodiazepines
    - Non-benzodiazepine sleep aids
  - Antipsychotics

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New Strategies in Pharmacologic Management?

- Alpha 2 agonism

29

Prevention of Delirium in PALTC

- Recognition of delirium on admission
- Identification of risk factors at every stage
- Systematic approaches to proactive screening
- Structured responses to medical evaluation
- Proactive support to prevent decompensation

30

Prehabilitation Expanded

- Automated identification algorithms
- Structured protocol responses
- Hospital Elder Life Program - LTC

31

References

1. American Psychiatric Association. DSM-5 Task Force.(2013). Diagnostic and statistical manual of mental disorders: DSM-5™. Arlington, VA, US.
2. Maldonado, J. R. (2018). Delirium pathophysiology: An updated hypothesis of the etiology of acute brain failure. International journal of geriatric psychiatry, 33(11), 1428-1457.
3. Trzepacz, P. T., Mittal, D., Torres, R., Kanary, K., Norton, J., & Jimerson, N. (2001). Validation of the Delirium Rating Scale-revised-98: comparison with the delirium rating scale and the cognitive test for delirium. *The Journal of neuropsychiatry and clinical neurosciences*, *13*(2), 229-242.
4. Wei, L. A., Fearing, M. A., Sternberg, E. J., & Inouye, S. K. (2008). The Confusion Assessment Method: a systematic review of current usage. Journal of the American Geriatrics Society, 56(5), 823-830.
5. Helfand, et al. (2020). Detecting Delirium: A Systematic Review of Identification Instruments for Non-ICU Settings. Journal of the American Geriatrics Society. Online, ahead of publication.
6. Cole, M. G., et al. (2012). Symptoms of Delirium Occurring Before and After Episodes of Delirium in Older Long-Term Care Residents. *Journal of the American Geriatrics Society*. 60:2302-2307.
7. McCusker, J., Cole M., Voyer, P., Monette, J., Champoux, N., Ciampi, A., Vu, M., Belzile, E. (2011). Prevalence and Incidence of delirium in long-term care. International Journal of Geriatric Psychiatry, 26:1152-1161.

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Thank you!

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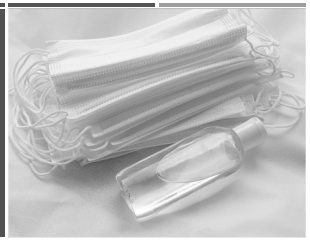
33

MOVING FROM PANDEMIC TO ENDEMIC

- ELIZABETH BORER, RN
- DAVID NACE, MD, MPH, CMD
- KIMBERLY SMOAK, MSH, QIDP



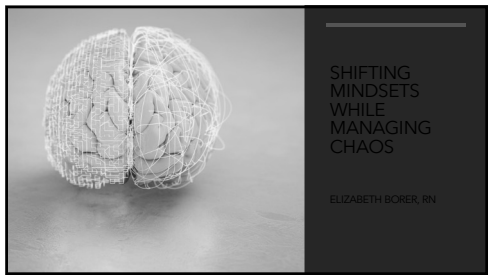
1

2

LEARNING OBJECTIVES

Differentiate	Differentiate among endemic, outbreak, epidemic, and pandemic levels of disease occurrence
Describe	Describe the transition of COVID-19 from pandemic to endemic status across healthcare
Address	Address the preparedness that PALTC facilities need to engage in today to move to endemic phase
Evaluate	Evaluate the role of COVID-19 vaccines and pharmaceuticals will have in transitioning to endemic status
Discuss	Discuss factors influencing vaccine hestancy and vaccine apathy
Highlight	Highlight educational strategies that clinicians in PALTC should be adopting to encourage vaccinations.

3



SHIFTING MINDSETS WHILE MANAGING CHAOS

ELIZABETH BORER, RN

4

IT'S BEEN TWO YEARS SINCE COVID-19 WREAKED DESTRUCTION ON HEALTH-CARE SYSTEMS WHILE BEING UNPREPARED TO DEFEND OURSELVES AGAINST THE NOVEL PATHOGEN.

What does this mean for the post-acute care continuum?

How do we move from Pandemic to Endemic?

Endemicity will require a mindset shift for both providers and caregivers. The need to adapt to living alongside COVID-19 by making some deliberate choices about how to coexist will be critical

Remaining proactive similarly to Influenza with COVID-19 ***not*** being tied to seasonal - screening, identification, isolation, monitoring

Develop long-term sustained means of continuing to combat Covid-19

5

Areas of focus needed:

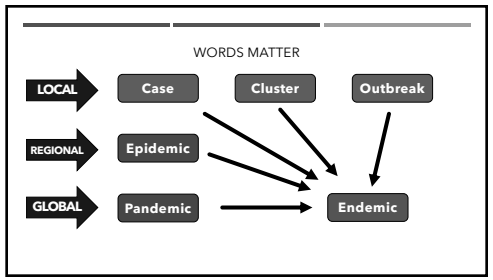
- Define new disease-management protocols to limit morbidity/mortality and establish practices to slow transmission

- Reimbursement – currently not aligned to deliver safe patient care
  - How will providers sustain the added cost incurred from onboarding and training with high staff turnover rates post pandemic?
  - Lack of reimbursement results in staffing cuts with increased ***Nurse:Resident*** and ***CNA:Resident*** ratios for sustainability to remain relevant in the future
    - Agency/contracted staff contributes to failed systems and increased regulatory burden
    - Increase in clinical benchmark percentages for key QOC areas (wounds, weight loss, falls, elopement, adherence to advance directive per resident's right's, significant medications errors, etc.) are on an uprise
- Staff Burnout/Shortages – caregivers leaving LTC environment
  - Development of strategies to identify and implement tools to keep healthcare workers engaged and inspired to remain in LTC

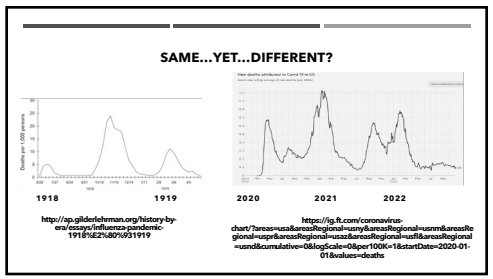
6


THE JOURNEY WE TAKE WITHOUT MINIVANS…
DAVID NACE, MD, MPH, CMD

7


WORDS MATTER
LOCAL
Case
Cluster
Outbreak
REGIONAL
Epidemic
GLOBAL
Pandemic
Endemic

8


SAME…YET…DIFFERENT?
1918
1919
2020
2021
2022
http://ap.gilderlehrman.org/history-by-era/essays/influenza-pandemic-1918%E2%80%931919
https://ig.ft.com/coronavirus-chart/?areas=usa&areasRegional=usny&areasRegional=usnm&areasRegional=usnj&areasRegional=usnd&cumulative=0&logScale=0&per100K=1&startDate=2020-01-01&values=deaths

9

SAME…YET…DIFFERENT?

1918-1919 Flu	COVID-19
~675,000 US deaths	1,064,465 deaths ***(10/31/22)***
US population = 103 mil	US population = 332 mil
Mostly younger	Mostly older
18-month timeline	Nearly 3 yrs & counting
No access to vaccines	Vaccines w/i 12 months

10

SOME PANDEMIC LESSONS

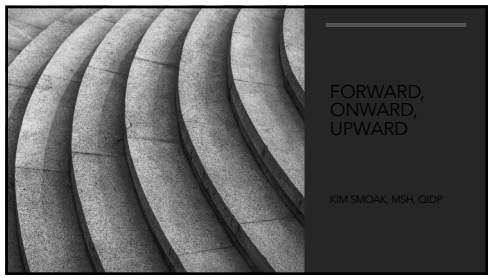
Gates B. How to Prevent the Next Pandemic. 1st ed. NY. Alfred A Knopf 2022
Nace D, personal reflections on the PA RRHCP & RCAT Program Experiences (things I overheard when talking to myself)

11

PREPARING FOR THE NEXT PANDEMIC

- Pandemic risk is increasing → expect more this century
  - 1950 - 25 million international arrivals
  - 2019 - 1.4 billion international arrivals
- Invest in diagnostic technologies now
  - Adaptable / Accessible / Cheap / Rapid
- Must develop a national surveillance system for current & emerging infections – ***now***
- Need to invest in respiratory virus research
- Anticipate long-term sequalae

12


FORWARD,
ONWARD,
UPWARD
KIM SMOAK, MSH, QIDP

13


OPEN DISCUSSION – WHERE DO WE GO FROM HERE??

14


QUESTIONS

15

The Latest in PALTC

FMDA Annual Meeting
November 4 , 2022

Alex Bardakh, MPP, CAE – Director, Public Policy and Advocacy

1

Disclosure

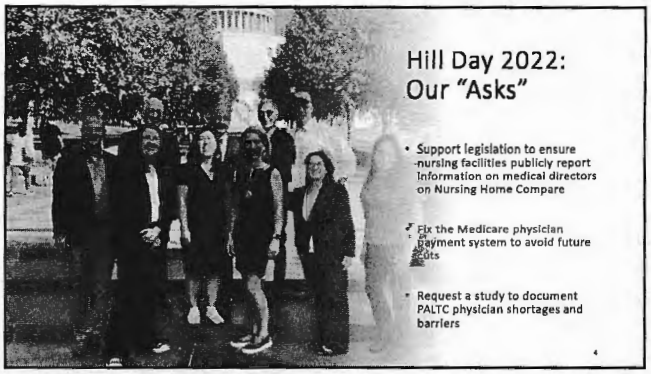
- The speakers have no relevant disclosures

2

How Does AMDA Advocate

- Direct Lobbying
  - Congress
  - Federal Agencies
- Grassroots
- AMA House of Delegates
- AMA Relative Value Scare Update Committee (RUC) - group of 32 physicians who advise Medicare on how to value a physician's work
- Many technical expert panels, coalitions, etc.

3


Hill Day 2022:
Our "Asks"
• Support legislation to ensure nursing facilities publicly report information on medical directors on Nursing Home Compare
• Fix the Medicare physician payment system to avoid future cuts
• Request a study to document PALTC physician shortages and barriers

4


Our Usual Partners
Advancing Excellence
NADONA
45 YEARS
AAPACN
AMERICAN ASSOCIATION OF POST-ACUTE CARE NURSING
Eldercare Workforce Alliance
LTPAC HIT
LCAO
Leadership Council of Aging Organizations
AMA
AHCA
NASL
The American Health Quality Association
LeadingAge
AGS
ASCP
CONSULTANT PHARMACISTS
HIMSS
ACHCA

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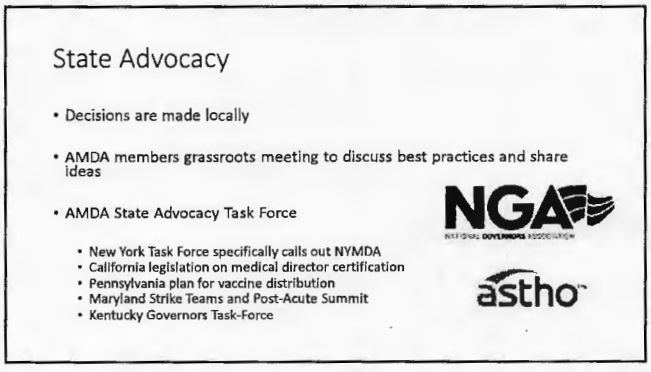
State Advocacy
• Decisions are made locally
• AMDA members grassroots meeting to discuss best practices and share ideas
• AMDA State Advocacy Task Force
• New York Task Force specifically calls out NYMDA
• California legislation on medical director certification
• Pennsylvania plan for vaccine distribution
• Maryland Strike Teams and Post-Acute Summit
• Kentucky Governors Task-Force
NGA
astho

6

Right Now

- Budget Reconciliation
- Economy, international issues, Supreme Court
- **Public Health Emergency – still in effect!**
  - **Have to give 60 day notice before it is lifted**
  - **Some waivers being lifted**
- Mid-Terms

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AMDA's ongoing COVID-19 response

COVID-19 Resource Page	• Rich content, updated • Tools, education, statements, references
Vaccine Hesitancy Toolkit	• Updated frequently to assist medical directors with staff hesitancy
COVID-19 Newsletter	• Started daily • Now weekly "PALTC Pulse"
Education Events	• Webinars, Podcasts, Grand Rounds
Media Awareness	• Television, radio, print
State Level Advocacy	• Weekly state group meeting • Formalized into Public Policy subcommittee

https://paltc.org/amda-update-covid-19

8

Federal Plans for Nursing Home Reform

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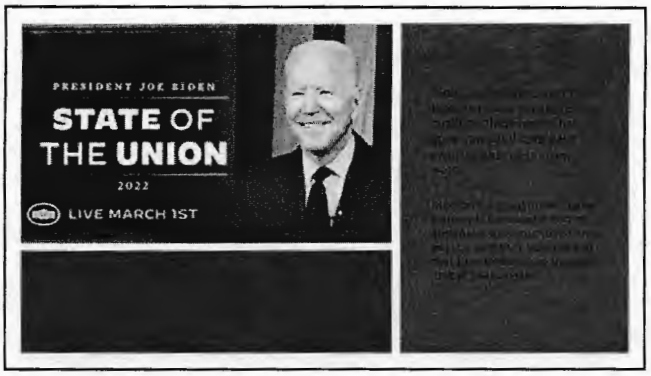


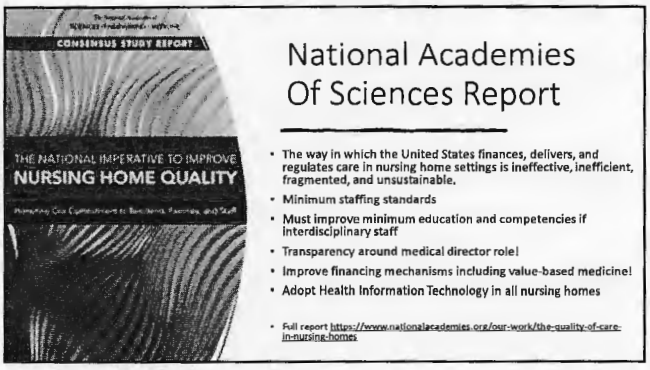
10

White House NH Reform Plan

http://www.whitehouse.gov/briefing-room/statements-releases/2022/02/28/fact-sheet-protecting-seniors-and-people-with-disabilities-by-improving-safety-and-quality-of-care-in-the-nations-nursing-homes/

- Minimum Staffing
- Room Occupancy
- Strengthen VBP
- Focus on Unnecessary Medications & Treatments
- Work Force Development
- Oversight Funding
- Special Focus Facilities
- Technical Assistance
- Ownership Transparency
  - Public Disclosure of Leadership
  - 5 Star Enhancements
  - Focus on Private Equity
- Enhancing Infection Prevention

11



National Academies Of Sciences Report

- The way in which the United States finances, delivers, and regulates care in nursing home settings is ineffective, inefficient, fragmented, and unsustainable.
- Minimum staffing standards
- Must improve minimum education and competencies if interdisciplinary staff
- Transparency around medical director role!
- Improve financing mechanisms including value-based medicine!
- Adopt Health Information Technology in all nursing homes

- Full report https://www.nationalacademies.org/our-work/the-quality-of-care-in-nursing-homes

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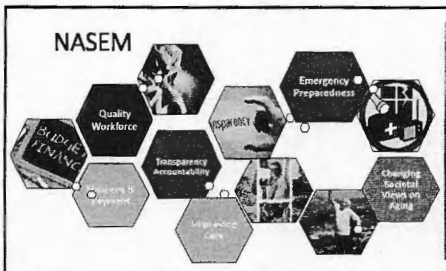
NASEM



- *"the way the United States finances, delivers and regulates care in nursing home settings is ineffective, inefficient, fragmented and unsustainable."*

National Academies of Science, Engineering, and Medicine

https://www.nationalacademies.org/our-work/the-quality-of-care-in-nursing-homes

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Our work is dedicated to producing lasting and equitable change for all nursing home residents in the United States.

Alice Bonner, Chair, Moving Forward Coalition

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The Coalition

The John A. Hartford Foundation committed $1.2 million to support the work of the Coalition. The Foundation invests in aging experts and practice innovations that transform how the care of older adults is delivered.

LeadingAge is acting as the Coalition's convenor. Guided by the research and experience of its staff and member community in mission-driven aging services and policy, it brings a legacy of integrity, expertise, and collaboration.

Institute *for* Healthcare Improvement will provide senior leadership for the Coalition, and will network with national organizations to design and implement action plans.

15

Committees

- Steering committee 
- Person-Centeredness, Culture Change, Care Planning and Quality of Life
- Staffing & Well-Trained Workforce
- Transparency & Accountability of Finances and Ownership
- Financing System
- System of Quality Assurance
- Quality Measurement & Continuous Quality Improvement
- Health Information Technology - Chair, Terry O'Malley, MD

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Hidden Camera Inside HHS Headquarters...

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Transparency in Medical Staffing: Affiliations & Medical Director Registry/Listing

- Public must have access to information on clinical leadership
- CMS adding SNF "affiliations" to Care Compare Website based on preponderance of Part B Billing
- Bi-partisan letter from Congress asking CMS to implement medical director registry/listing.
  - Continued discussions with CMS

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Transparency in Medical Staffing: Affiliations & Medical Director Registry/Listing

- States have begun conversations AND acted to implement on state level
- California Legislation signed October 2021 mandates a CMD and public listing of the medical director
- October 2022 AMA letter to CMS asking for public listing of medical directors

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Breaking: Congress Introduces Legislation Requiring Public Disclosure of Nursing Home Medical Directors

- Reps. Mike Levin (D-CA) and Brian Fitzpatrick (R-PA) introduced HR8832 Nursing Home Disclosure Act
- Write your Congressmen urging them to co-sponsor the legislation https://app.govpredict.com/gr/gwdr3fsz
- Looking for Senate champions

20

CMS Requests Feedback on National Registry of Providers 10/7/2022

- "Easy access to accurate and useful **provider directory** information is critical for patients trying to find health care that best meets their individualized needs and preferences," said CMS Administrator Chiquita Brooks-LaSure. "CMS is seeking comment on how a **National Directory of Health Care Providers and Services** could better serve patients and reduce unnecessary burden placed on providers to maintain dozens of separate directories. We look forward to hearing from our stakeholders on the need for a single source for this information for the entire health sector."

We could not have said it better ourselves!

AMDA

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Update on COVID

22

COVID-19 Right Now

https://paltc.org/amda-update-covid-19

Continued calls with CMS/CDC

Continued conversations with Congressional staff

Top Issues

- Is Pandemic Over?
- Use of therapeutics
- Major staffing crisis
- Vaccinations/booster shots – why no requirement for surveyors?
- Clinician burnout
- Long-term outlook

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Staffing/~~Work~~Careforce

- Escalated Public Discussion:
  - Center for Medicare Advocacy – staffing levels impact COVID deaths https://medicareadvocacy.org/nursing-home-staffing-is-key-to-covid-deaths/
  - Health Affairs in March 2021 – staff turnover exceeds 100%
  - More pressure on minimum staffing levels
  - Full time infection control specialist
  - 24hr RN coverage
  - Infection control specialist
  - Biden Plan for Nursing Homes

AMDA's updated position statement https://paltc.org/?q=amda-white-papers-and-resolution-position-statements/position-staffing-standards-long-term-care (as of August 10, 2022)

AMDA statements:

- Staffing and trained workforce are key to quality care
- Benefits/career ladders and training all factors for direct care workforce
- Continued support Geriatric Workforce Enhancement Program (GWEP) and Geriatric Academic Career Awards (GACA)

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Staffing Crisis - Battle Over Strategy

- Opposing forces from consumer advocates to "industry"
- Is a set staffing ratio the right answer?
- CMS focused on measuring staffing levels vs Quality – what defines quality?
- AHCA estimates cost @ $10 billion. Advocates say look at profit and related party transactions
- Why are we not talking about the physician availability crisis? How do we define it?

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New: *Improving Care and Access to Nurses Act*

- H.R. 8812, the "*Improving Care and Access to Nurses Act,*" or the "I CAN Act" recently introduced by Representatives Lucille Roybal-Allard (D-CA) and David Joyce (R-OH) (7 co-sponsors total). The bill will "provide proper reimbursement for CRNAs to provide evaluation and management services for patients in Medicare, allow CRNAs to order and refer medically necessary services, permanently remove unnecessary physician supervision under Medicare, promote payment parity in the teaching rules, and provide access to CRNA services in Medicaid."
- *Sec. 107 of the bill: Streamlining Care Delivery in Skilled Nursing Facilities and Nursing Facilities*
  - Medicare regulations for SNFs do not authorize NPs to perform admitting examinations for SNF patients. Currently, they are only authorized to perform alternating required monthly/bimonthly assessments. Also, SNF care must be provided under the supervision of a physician. This practice restriction tends to undermine continuity of care. **This section would remove the requirement that SNF care be provided under the supervision of a physician and authorize NPs to perform admitting examinations and all required patient assessments.**

26

Strike Team Funding

- $500 million authorized in American Rescue Plan 2021
- Authorized for nursing homes with suspected COVID
- New guidance released to states https://paltc.org/publications/cdc-releases-guidance-nursing-home-strike-team-funding
- Funding available now! Make sure you are involved in discussions!
- Important to be at the table – AMDA policy brief https://paltc.org/sites/default/files/Policy%20Brief%20on%20NH%20Strike%20Teams%20final%20v4.pdf

27

Medicare Physician Payment Update

28

They like us, really like us? Changes to NF WRVUs

CODE	Descriptor	Current Work RVU	New Work RVU	% Change
99304	Initial Nursing Facility Care (25 minutes)	1.64	1.50	-2.44
99305	Initial Nursing Facility Care (35 minutes)	2.35	2.5	+6.38
99306	Initial Nursing Facility Care (45 minutes)	3.06	3.5	+14.4
99307	Subsequent Nursing Facility (10 minutes)	0.76	0.70	-7.9
99308	Subsequent Nursing Facility (15 minutes)	1.16	1.3	+12.1
99309	Subsequent Nursing Facility (30 minutes)	1.55	1.92	+23.9
99310	Subsequent Nursing Facility (45 minutes)	2.35	2.8	+19.1
99315	Nursing facility discharge day (30 mins or less)	1.28	1.5	+14.9
99316	Nursing facility discharge day (More than 30 mins)	1.9	2.5	+31.6

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Actual Proposed Payment with CF Cut

Code	Total 2023 RVUs	2023 Payment Rate (CF=33.0775)	Total 2022 RVUs	2022 Payment Rate (CF=34.6062)	Percentage Change 2022-2023
99304	2.38	$78.72	2.57	$88.94	-11.48%
99305	3.91	$129.33	3.72	$128.74	0.46%
99306	5.35	$176.96	4.76	$164.73	7.43%
99307	1.19	$39.36	1.27	$43.95	-10.44%
99308	2.18	$72.11	1.98	$68.52	5.24%
99309	3.13	$103.53	2.65	$91.71	13%
99310	4.49	$148.52	3.87	$133.93	10.90%
99315	2.39	$79.06	2.08	$71.98	9.83%
99316	3.81	$126.03	2.99	$103.47	21.80%

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Highlights of Documentation Changes

- **Code selection by time or medical decision** making not history and physical
- **99318 has been deleted.** Use Annual Wellness Visit code instead
- **New G codes face-to-face prolonged service codes** (replacing 99358-59)
- **Split/shared visits now allowed**

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Telehealth

- Latest: CMS lifted waiver that will mandate IN-PERSON visits for mandatory physician visits
  - One every 30 days for the first 90 days and every 60 days thereafter
- PHE 1135 waiver remains in effect! All telehealth is allowed with no limitations
  - Paid at the same rate as in person visit
  - Use modifier 95
- Nursing homes can bill per encounter as an originating site using code Q3014
- After PHE:
  - CMS finalized once every 14 days restriction on subsequent care nursing home codes (99307-99310)
  - Initial visit codes (99304-99306) NOT included post PHE
  - Added home/domiciliary established patient codes to telehealth list for the rest of the year in the year in which the PHE ends
  - Looking to test others
  - No geographic restrictions
- AMDA Telehealth workgroup working on use cases around telehealth
- Strongly advocating for extension of telehealth waivers, removing barriers
- Proposed physician fee schedule released on 7/22 does NOT make any changes to telehealth for nursing home codes. Initial visit remains on the list of telehealth codes but per April 7 CMS memo not billable as telehealth visit

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Nursing Facility Payment Update

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Patient Driven Payment Model Insights

Where we are now:

- Started Nov 2019
- COVID patients helping facilities take advantage of skilling in place
- 3-day waiver under utilized
- Accurate and comprehensive diagnosis coding is lacking
  - Missed opportunities and Non Therapy Ancillary points
- Subpar involvement of medical team in the PDPM assessment/coding process
- Medical provider collaboration with facilities is meaningful
- Timely, accurate diagnoses and associated documentation

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Highlights of SNF Prospective Payment System Proposed Rule

- Decrease of approx. $320 million in Medicare A payments to SNF Update: Final rule INCREASES payment by $904 million
- Request for Information on Staffing Levels
- SNF Quality Reporting Program Measure on Influenza Vaccination Coverage Among Healthcare Personnel
- SNF Quality Reporting Transfer of Health Measure
- Improving Health Information Technology
- AMDA Submitted Comments on June 10, 2022

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Revised Surveyor Guidance Phase 3 Final Rule

- Issued June 29, 2022 Finalizing Proposed Rule Issued in 2019 BC https://www.cms.gov/files/document/qso-22-19-nh.pdf-0
- Rule effective October 24, 2022
- Resident rooms – improve privacy (at least 80sq ft per resident). Encourage "home like" environment. (Biden-Harris plan calls for private rooms)
- Infection control – facility must have at least a part time infection preventionist (role and definition of "part-time' not well defined
- **Changes to RAI Manual – reporting of physicians for no supporting evidence of schizophrenia diagnosis (AMDA wrote letter to CMS opposing such action)**
- Arbitration agreements
- Abuse and Neglect

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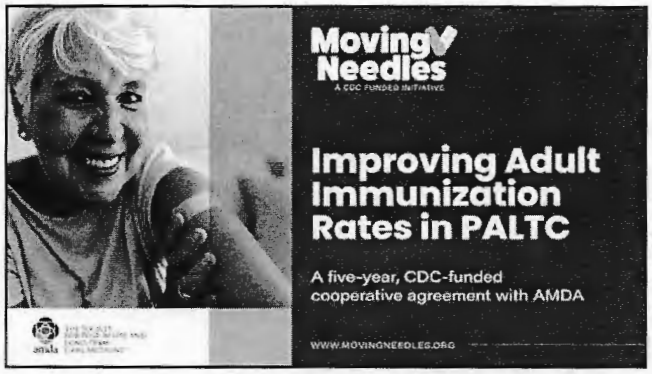
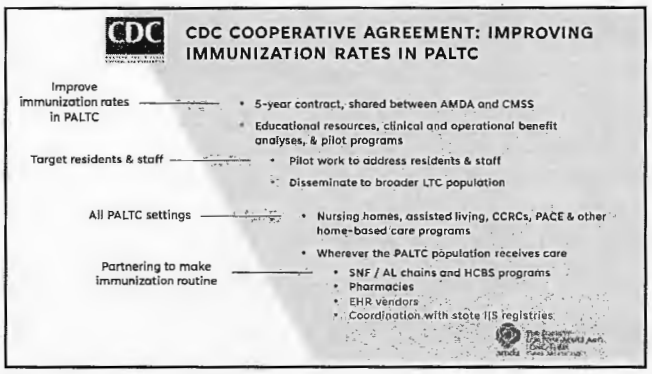

Moving Needles
A CDC FUNDED INITIATIVE
Improving Adult Immunization Rates in PALTC
A five-year, CDC-funded cooperative agreement with AMDA
WWW.MOVINGNEEDLES.ORG

37


CDC
CDC COOPERATIVE AGREEMENT: IMPROVING IMMUNIZATION RATES IN PALTC
Improve immunization rates in PALTC
5-year contract, shared between AMDA and CMSS
Educational resources, clinical and operational benefit analyses, & pilot programs
Target residents & staff
Pilot work to address residents & staff
Disseminate to broader LTC population
All PALTC settings
Nursing homes, assisted living, CCRCs, PACE & other home-based care programs
Wherever the PALTC population receives care
Partnering to make immunization routine
SNF / AL chains and HCBS programs
Pharmacies
EHR vendors
Coordination with state IIS registries

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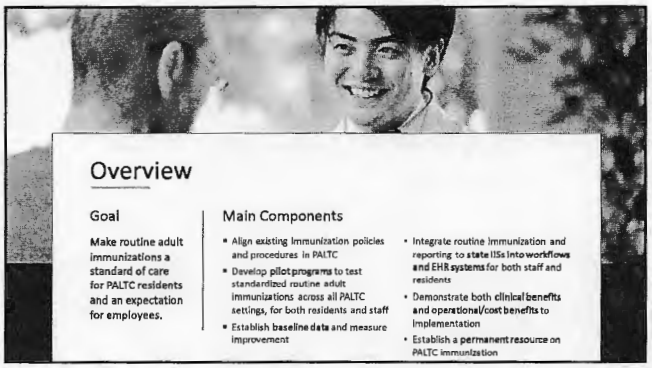
Overview
Goal
Make routine adult immunizations a standard of care for PALTC residents and an expectation for employees.
Main Components
Align existing immunization policies and procedures in PALTC
Develop pilot programs to test standardized routine adult immunizations across all PALTC settings, for both residents and staff
Establish baseline data and measure improvement
Integrate routine immunization and reporting to state IISs into workflows and EHR systems for both staff and residents
Demonstrate both clinical benefits and operational/cost benefits to implementation
Establish a permanent resource on PALTC immunization

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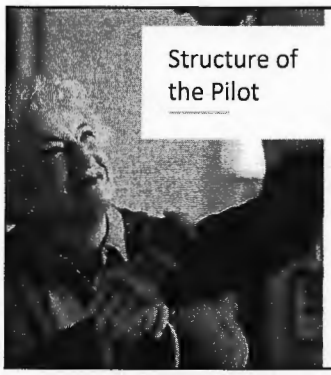

Structure of the Pilot

Teams in each site: medical director (where applicable), CNA or other front-line staff, director of nursing, etc.

Once a month:

- Hour long virtual meeting – part information/education, part group discussion and measures review
- Individual site 15-minute check in
- Data submission

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Website and Newsletter

- www.movingneedles.org
  - Has resources for improving rates among staff and residents
- movingneedles@paltc.org
  - Send questions or ask to be added to the quarterly newsletter

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General AMDA Announcements

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Get easy access to:
Your Purchased & Licensed Resources
Guide to PALTC Coding
Know-It-All Series Tool (reimagined for App)
Pocket Guides (optimized for App)
Clinical Tools – NEW FOR MEMBERS!
FRAIL Screening Tool
SARC-F Screen for Sarcopenia
SNAQ (Short Nutritional Assessment Questionnaire)
Rapid Cognitive Screen
AMDA Social
And More!
Highlights
App Store
Google Play

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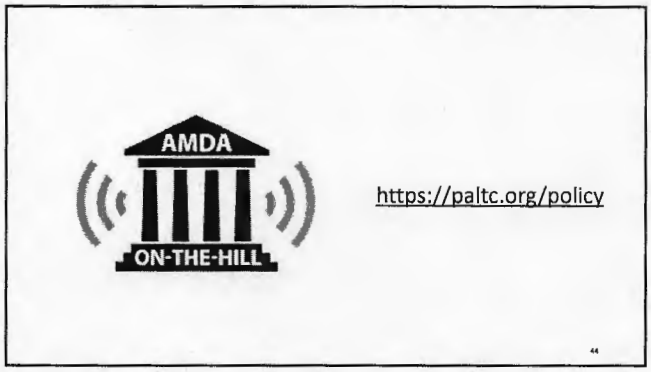
AMDA
ON-THE-HILL
https://paltc.org/policy

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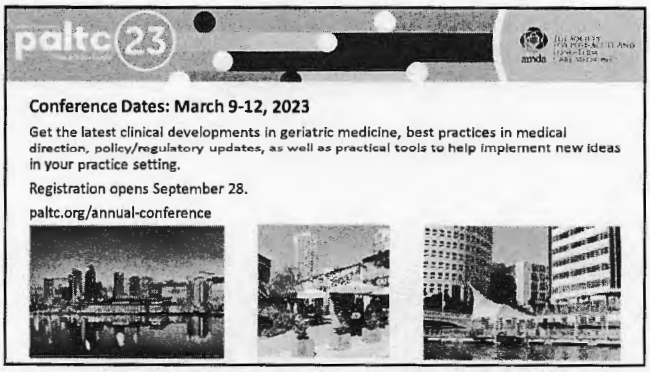
paltc 23
Conference Dates: March 9-12, 2023
Get the latest clinical developments in geriatric medicine, best practices in medical direction, policy/regulatory updates, as well as practical tools to help implement new ideas in your practice setting.
Registration opens September 28.
paltc.org/annual-conference

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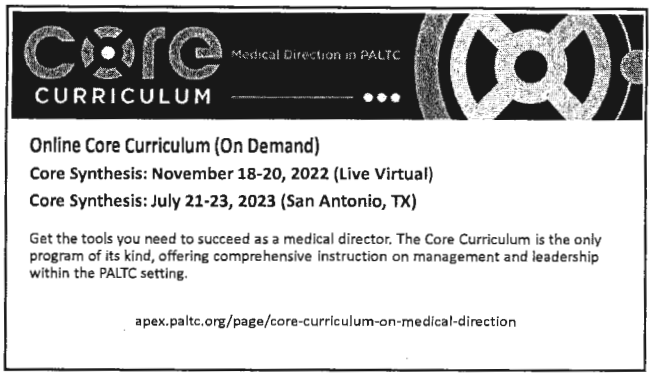
Core
Medical Direction in PALTC
CURRICULUM
Online Core Curriculum (On Demand)
Core Synthesis: November 18-20, 2022 (Live Virtual)
Core Synthesis: July 21-23, 2023 (San Antonio, TX)
Get the tools you need to succeed as a medical director. The Core Curriculum is the only program of its kind, offering comprehensive instruction on management and leadership within the PALTC setting.
apex.paltc.org/page/core-curriculum-on-medical-direction

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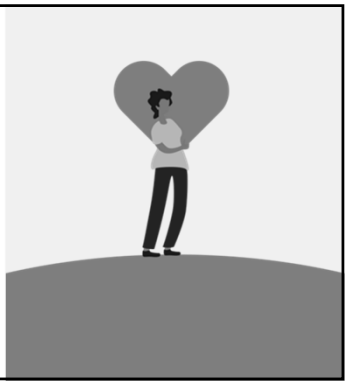
Recognizing Burnout In Those Caring For Patients with Dementia



Gregory James, DO, MPH, CMD
UnitedHealth Group / Optum, Home & Community
Senior Medical Director, North Region US and FL Market

Nicholas James, PhD
Staff Psychologist
Orlando Veterans Affairs (VA) Health Care System

1

Speaker Disclosures

Dr. Gregory James is a full-time employee of UnitedHealth Group; Optum, Home & Community Division

Dr. Nicholas James has no conflicts to disclose for this presentation.

2

Learning Objectives

- Describe the primary causes of burnout for the caregivers of patients that are under our care
- Describe the application of burnout theory
- Be able to recognize and explain the signs and symptoms of burnout in informal caregivers
- Identify the resources and methods to get these caregivers the help and treatment they need for their burnout

3

Agenda

- **Introduce the topic of Caregiving**
- **Burnout**
  - Common Themes
  - Research
  - Detection
- **Caregiver Burnout Assistance**
  - Support Groups and Resources
  - Educational Programs
- **References**

4

Why talk about this problem?

34 BILLION HOURS

of uncompensated care in the U.S. each year

$500,000,000,000

of annual economic impact each year

Burnout is an incredibly common experience, yet identification of those at high risk of burnout impacting their health and functioning remains a difficult task

5

Increasing Demand for Caregivers (CDC)

- Need for caregivers is growing with the aging US population
- The number of caregivers increased from 43.5 million in 2015 to about **53 million** in 2020, or more than **1 in 5 Americans**
- By 2030, est. **73 million people** in the United States will be **65 years or older**
  - Many will require assistance from at least one caregiver to maintain quality of life and independence
  - More than **two-thirds of the US population** will likely need help with tasks in their lifetime

6

Caregiving is. . . *the activity or profession of regularly looking after a child or a chronically ill elderly, or disabled person*

Informal Caregivers
- Any unpaid person providing care to another person
- A friend, child, spouse, in-law, siblings, other family members
- Highly heterogeneous
  - Almost anyone can be a caregiver, therefore, can't easily profile who is the 'average' caregiver

Professional Caregivers
- Wide-range of occupations
  - Physicians
  - Advanced Practice Clinicians (APCs)
  - Nurses
  - CNAs
  - Mental-health aides
  - Many more
- Most/All of us attending this presentation today

7

Differences: Professional vs Informal* Caregiving

Structural differences
- Organizational support (Human Resources, Training Programs)
- Vacation / PTO
- Co-workers & support staff

Role differences
- Caring for family* vs stranger
- Chosen job vs unexpected role*
- Shift work vs up to 24/7/365*

Task differences
- Training/experience level differences*
- Greater range of ADLs and IADLs*
- Typically, no known end in sight*

8

Understanding Caregiver Dynamics

Caregiving **Burden**
- Objective – **concrete tasks** (EX: ADL's/IADLs), including frequency and time spent completing the tasks that need to get done every day
- Subjective –**stress and emotional impact** related to concrete caregiving tasks

Common **Stressors**
- Any secondary stressor associated with taking on caregiving role
- Highly variable

Caregiver **Burnout**
- Experience of exhaustion (physical, mental, interpersonal) resulting from an imbalance of task-strain and from protective factors
- *Identifiable outcome of burden and stressor factors.*

9

Caregiving Stressors

Common stressors of caregiving:

- Taking on the role unexpectedly
- Major shifts in life plans
- Reduced self-care time
- Decreased social activity/support
- Difficult-to-access resources (education, financial, burden)

Exacerbated by pre-existing issues in relationship (strains the relationship)

- Previous Relationship Dynamics (spouse/partner/childhood):
  - Abuse (verbal, physical, sexual, financial)
  - Neglect (physical, emotional)

A new caregiver often has less than 48 hours to learn and assume all the roles

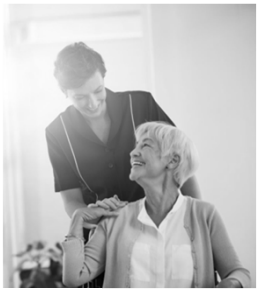
10

Many Facets of Caregiving Burden

11

Caregivers: A Snapshot (CDC)

- 58% of caregivers are women
- ≈1/3 of caregivers provide a minimum of **at least 20 hours of care a week**
- Typically lack formal training
- 79% care for adults aged >50, and 76% of care recipients are > 65
- One-in-six people expect to become a caregiver within the next two years



- SOURCE: https://www.cdc.gov/aging/publications/features/supporting-caregivers.htm?ACSTrackingID=USCDC_944-DM71712&ACSTrackingLabel=Year-in-Review%202021&deliveryName=USCDC_944-DM71712

12

Financial Strains of Caregiving (CDC)

Caregiving can have a negative financial effect on caregivers

- Leaving work early or taking time away from work, resulting in lost wages
- Nearly 20% employed caregivers stopped working, 40% reduced working hours
- Almost 80% of caregivers report paying out-of-pocket for routine/medical expenses for care recipients
  - The average annual out-of-pocket cost for caregivers is **$7,200**, and nearly **$9,000** for caregivers of someone with dementia

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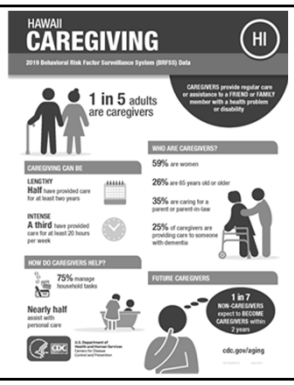

14

Equity in Dementia Care

- People of color face discrimination when seeking health care for Alzheimer's disease and related dementias.
- Findings from two national surveys conducted by the Alzheimer's Association show that Black Americans reported the highest level of discrimination in dementia health care
- This was followed by Native Americans, Asian Americans, and Hispanic Americans.
- Link: Barriers to Equity in Alzheimer's and Dementia Care (cdc.gov)

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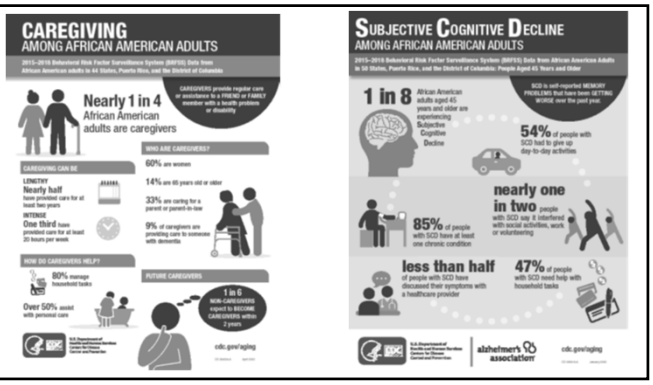


16

Introduction To Burnout

The word “burnout” has become ubiquitous

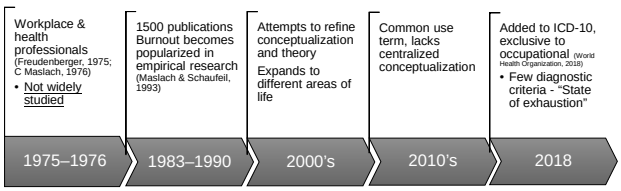
Seems to sum up the stress, exhaustion, and disaffection that many of us are feeling

The past 1-2 years more than most

- What does the term “burnout” actually mean?
- How does burnout differ from depression or stress?
- What can individuals, employers, and society do to combat burnout?

17

History of Burnout Research



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Burnout

- *Physical or emotional exhaustion involving a sense of reduced accomplishment and loss of personal identity* (*Mayo Clinic*)
- Common theme is **exhaustion**
- 50-65% of the healthcare workforce reports high levels of burnout (Denning et al., 2021; Jalili et al., 2021)
- Primarily used in occupational settings
  - But can occur in non-occupational settings that may be similar to work

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Indicators of Exhaustion

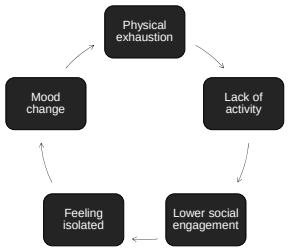
Impacts manifest across domains

- **Physical** (sleeplessness, somatic symptoms, fatigue)
- **Mental** (irritability, loss of motivation)
- **Interpersonal** (lower social engagement or interest in socialization)

Burnout is **globally impactful**

- (Christina Maslach, Jackson, Leiter, Schaufeli, & Schwab, 1986)

Cyclical relationship



20

Application of Burnout Theory

Job Demands-Resources (JD-R) model
(Demerouti, Bakker, Nachreiner, & Schaufeli, 2001)

- **Occupational demands**
  Physical, psychological, or social costs
  Increases as frequency, intensity, and duration of high-cost tasks
- **Job resources**
  Reduction of cost, stimulation of growth, and reward
- **Burnout is an indicator of this imbalance**
  Imbalance leads to poor work quality, health impairment, and attrition

21

JD-R Model Applied to Informal Caregiving

Occupation	Informal Caregiving
Demands • Physical costs (strenuous labor) • Psychological costs (stress) • Social costs (relationship impacts)	**Burden** • Physical costs (ADL/IADL assistance) • Psychological costs (stress/worry) • Social costs (relationship with recipient or relationship impact)
Resources • Co-worker support • Employee assistance programs • Payment • Desired advancement/training	**Resources** • Social support • Support services / professional care • Reduction of financial burden • Competency / reinforcement

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Burnout Outcomes

Impact in caregiver health or caregiving role

- **Depression**
  - Associated with burden
  - Many known negative outcomes
- **Premature transfer to LTC**
  - Closest parallel to "workplace attrition"
    - Difficult to measure
  - Often due to difficult tasks such as incontinence or problematic behaviors
    (Branch & Jette, 1982; Buhr, Kuchibhatla, & Clipp, 2006)
  - Prolonging transfer improves QoL and reduced financial burden

23

Caregiving Burdens and Stress

Health impacts of burden/burnout

- Nearly 1 in 5 caregivers reports fair or poor health
- Caregivers often neglect their own health needs, increasing their risk of having multiple chronic conditions
- **Nearly 40%** have at least two chronic diseases:
  - **1 in 7** has heart disease or stroke (1 in 5 in those 65+)
  - National Alliance for Caregiving and AARP study found **nearly 25% of US caregivers** say caregiving has made their health worse

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Symptoms of Problematic Burnout

- Social withdrawal
- Decreased self-care (physical/mental)
- Changes in appetite, weight or both
- Changes in sleep habits and/or patterns
- Feeling ill or tired more often
- Feeling overwhelmed or constantly worried
- Frequent headaches, bodily pain or other physical problems.
- **Quote: "I cannot recall the last time I did anything for myself"**

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Support

Social support
- Can provide "breaks" or "days off"
- Perceived support inversely related to burden (Chiou, Chang, Chen, & Wang, 2009; Haley et al., 1987)

Financial
- Social programs
- Professional services

Emotional
- Caregiver support groups, family involvement
- Psychotherapy to address acute symptoms / coping skills

Time for self-care or completing necessary tasks

Professional support (transportation, professional nursing, legal / financial planning)

26

How do we detect caregiver burnout?

Measures of Burnout are primarily occupational
- **Maslach Burnout Inventory** (Maslach, Jackson, Leiter 1997)
- **Copenhagen Burnout Inventory** (Kristensen et al., 2005)

Both lack of validations studies for informal caregivers

Measure created for informal caregivers
- **Informal Caregiver Burnout Inventory** - 10 Item Form (James & Paulson, 2020)

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Emerging Research on Caregiver Burnout

Informal Caregiver Burnout Inventory (ICBI-10)
(James & Paulson, 2020)

- 10 Questions, 5-Point-Likert Scale (score of 0 to 40)
- Higher scores indicate higher levels of burnout
- Good discriminate validity of burnout vs depression
- Validated specifically for informal caregivers of older adults
- Subscale for deficient support

Burnout Questionnaire	Agree completely	Agree a little	Neither agree / disagree	Disagree a little	Disagree completely
1. I feel burned out from caregiving.					
2. I do not have the time or energy to take care of myself.					
3. I feel physically drained.					
4. Caregiving is physically exhausting.					

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How do we detect caregiver burden?

Measurement of Burden is well-established

- **Zarit Burden Interview**
  (Zarit, Reever, Bach-Peterson, 1980)
  Subjective burden
  Gold Standard measure
  22-, 12-, or 6- item versions
- **Activities of Daily Living Checklist**
  (PBS & AARP, 2008)
  Objective burden
  – **ADL**: bathing, toileting, eating
  – **IADL**: Shopping, cooking, driving

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Detection to Action

Detect
Brief Questionnaires (ADL/IADLs, Zarit Burden Interview, ICBI-10)
Co-occurring needs (caregiver medical/psychological disorders going unaddressed)

Assess Needs
Ask questions directly
Use responses from questionnaires

Provide Resources
Educational, Support, Self-care, Therapy, Legal, Financial
Local / National

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Responding to burden and burnout

Burden
- Resources to alleviate objective burdens
  - Financial
  - Educational
  - Professional / community support
  - Physical strain
- Problem-solving to reduce strain

Burnout
- Self-care
- Support groups
- Psychotherapy
- Caregiver interventions (REACH, Savvy Caregiver)

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Why do caregiving and burnout coexist?

Promises made between spouses or partners to keep them at home, rather than placement in an appropriate nursing or assisted living facility, when they had little idea of:

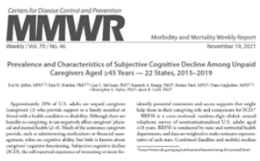
- What kind of care would be needed
- What kind of life they were committing themselves to
- Financial strains after paying for acute care
  Lack of Long-Term Care insurance
- Drastic change in relationship dynamics

32

Morbidity & Mortality Weekly Report (MMWR); Nov 2021

Prevalence and Characteristics of Subjective Cognitive Decline Among Unpaid Caregivers Aged ≥45 Years – 22 States, 2015-2019:

- 1 in 8 unpaid caregivers (age 45+) reported subjective cognitive decline (SCD)
  - SCD = Self-reported experience of worsening confusion or memory loss over the past year.
- SCD was higher among caregivers (12.6%) than non-caregivers (10.2%).
- Caregivers with SCD were more likely than those without SCD to report chronic health conditions, a history of depression, and frequent activity limitations.


Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
November 19, 2021
Prevalence and Characteristics of Subjective Cognitive Decline Among Unpaid Caregivers Aged ≥45 Years — 22 States, 2015–2019

(MMWR Weekly / November 19, 2021 / 70(46);1591–1596)

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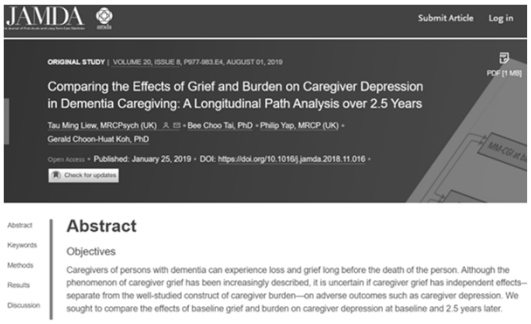
JAMDA

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ORIGINAL STUDY | VOLUME 20, ISSUE 8, P977-983.E4, AUGUST 01, 2019

PDF [1 MB]

Comparing the Effects of Grief and Burden on Caregiver Depression in Dementia Caregiving: A Longitudinal Path Analysis over 2.5 Years

Tau Ming Liew, MRCPsych (UK) • Bee Choo Tai, PhD • Philip Yap, MRCP (UK) • Gerald Choon-Huat Koh, PhD

Open Access • Published: January 25, 2019 • DOI: https://doi.org/10.1016/j.jamda.2018.11.016 •

Check for updates

Abstract

Keywords

Methods

Results

Discussion

Abstract

Objectives

Caregivers of persons with dementia can experience loss and grief long before the death of the person. Although the phenomenon of caregiver grief has been increasingly described, it is uncertain if caregiver grief has independent effects--separate from the well-studied construct of caregiver burden—on adverse outcomes such as caregiver depression. We sought to compare the effects of baseline grief and burden on caregiver depression at baseline and 2.5 years later.

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JAMDA Article Conclusions

Grief can amplify the effect of burden at baseline and can have an independent effect on depression over time.

Caregiver grief has a "latent phase"

- Effects may have a delayed onset.

The findings highlight the need to:

- Identify and address caregiver grief in dementia services
- Present a window of opportunity to improve caregiving outcomes, especially during the "latent phase" when caregivers have only begun to encounter loss and grief but have yet to fully experience the debilitating effects of depression.


JAMDA

Comparing the Effects of Grief and Burden on Caregiver Depression in Dementia Caregiving: A Longitudinal Path Analysis over 2.5 Years

Abstract

Objectives

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Supporting Caregivers: An Emerging Public Health Issue

Millions of older adults and people with disabilities could not maintain independence without help of unpaid caregivers.

- Assistance with routine tasks help care recipients remain in the community.

2017 Census data indicates 1.7 million licensed beds in nursing facilities, 1 million licensed beds in residential care communities (CDC Vital and Health Statistics, 2019)

- 41.8 million estimated US caregivers
- 76% care for one individual (24% for two +)

Conservatively, 30+ million individuals age 50+ received unpaid caregiving in past 12 months.
(AARP & NAC, 2020)

Preventing burnout increased longevity and quality of informal care.

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How to Support Caregivers?

- Negotiate times to check in on them
- Make sure they are managing their own health care needs
- Help them with errands, chores, and other tasks
- Provide emotional and social support
- Encourage them to seek mental health services if necessary
- Help them create and manage a care plan for the person they care for

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Resources for Family Caregivers (Partial List)

- Centers for Disease Control and Prevention (CDC)
- The Public Health Center of Excellence on Dementia Caregiving (PHCOE)
- Family Caregiver Alliance (FCA)
- Caregiving Resource Center
- Alzheimer's Association
- American Association of Retired Persons (AARP)

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CDC Email to Providers

Supporting Caregivers: An Emerging Public Health Issues

Caregivers help maintain the health and well-being of older adults and people with disabilities or chronic health conditions. Learn about caregiving, caregivers, and their challenges and risks.

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Weekly Emails from the CDC

Centers for Disease Control and Prevention <no-reply@emailupdates.cdc.gov>
To: James, Gregory J

Retention Policy: UHGInbox (90 days) Expires: 12/19/2022

External Email

If there are problems with how this message is displayed, click here to view it in a web browser.

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Reducing Alzheimer's Disease Risk

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Email from the Alzheimer's Association

Dementia Caregiver Survey and upcoming events.

Alzheimer's Association Florida Gulf Coast <alzflnews@alz.org>
To: James, Gregory J

Retention Policy: UHGInbox (90 days) Expires: 12/24/2022

External Email

If there are problems with how this message is displayed, click here to view it in a web browser.

LIVABLE FLORIDA
LIVE WELL. AGE WELL.

We need your help with a very important survey!
The State of Florida, the Department of Elder Affairs, and the State Health Improvement Plan Priority Area 1 (DOEA/SHIP) aims to enhance support for those living with dementia and their caregivers through your responses to a dementia caregiver survey. Learn more below.

Background
Florida has the second highest prevalence of Alzheimer's disease and related dementias (ADRD) with over 580,000 residents with a diagnosis. ADRD does not only affect the individual but also those who provide care for them and their family. In Florida, we have over 806,000 individuals providing unpaid care for their loved ones. This care is valued at over $20.6 billion dollars. The number of people with ADRD is expected to increase in Florida by over 25 percent by 2025. Due to this reality, Florida is doing all it can to be dementia capable.

The dementia caregiver survey includes questions about:
- Support and services
- Caregiver health
- Respite and emergency respite programs
- Diagnosis and care planning

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Lack of Diversity In Health Care Staff Creates Barriers

- Understanding how different racial and ethnic group's view, access, and experience health care is critical to improving the health care system and helping health providers care for an increasingly diverse population.
- It is projected that people of color will account for over half (52%) of the population in 2050.
- Characteristics of health care systems that contribute to disparities should be acknowledged.
- These include implicit bias on the part of health care providers.
- Cultural and language barriers can also hinder patient-provider relationships.

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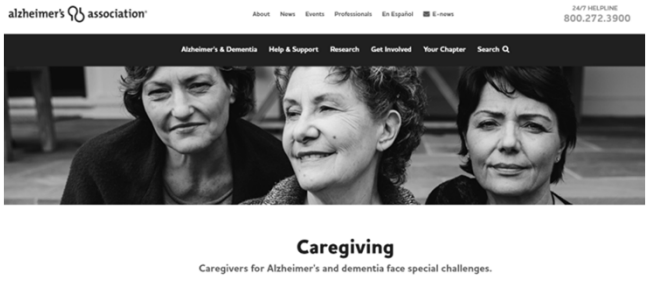
Diversity In Healthcare Staff (continued)

Minority Populations Desire Health Care Providers Who Understand Their Ethnic or Racial Background:

- Given their own experiences with discrimination, it is not surprising that non-White racial/ethnic populations feel it is important for Alzheimer's and dementia care providers to be more culturally competent.
- Responses from surveys indicate a strong desire for dementia health care providers who understand different racial and ethnic backgrounds, but many survey respondents say access to these providers is lacking.

44

Alzheimer's Association Caregiving Webpages



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Caregiver Resources (continued)

From the Alzheimer's Association

Other program opportunities

Use Community Resource Finder to search for other programs including locations where the Brain Bus will be visiting, Alzheimer's education programs like Caregiver College and social programs for people in the early stages of dementia. Click below to learn more.

Community Resource Finder

Support Groups

View all in-person, virtual and telephonic support groups including groups for caregivers and people with early stage dementia. Click on the button below or call 800.272.3900 to learn more.

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Alzheimer's Association Support Groups *Groups meet in-person **RSVP 800.272.3900** Updated 9/9/2021

Type of group	County	Week	Week Day	Time	Location	Address	Facilitator	Notes
Central and North Florida Chapter								
ES- Social	Brevard	Various	Monday	1:30 p.m.	One Senior Place	8085 Spyglass Hill Rd, Melbourne, FL 32940	Susan Blakeslee	Art Connects ALZ program, please call 800.272.3900 to register. Mondays, Aug. 16, 23, and 30, Sept. 13 and 20.
ES- Social	Seminole	Various	Wednesday	1 p.m.	One Senior Place	715 Douglas Ave, Altamonte Springs, FL 32714	Pamela Levin	Art Connects ALZ program, please call 800.272.3900 to register. Weds., Sept. 8, 15, 22, and 29, Oct. 6, 13, 20, 27, and Nov. 3, 10, and 17.
ES- Social	Volusia	Various	Wednesday	10:30 a.m.	The Hub	132 Canal St., New Smyrna Beach, FL 32168	Carolyn Land, Sheila Collins, Donna Bradley	Art Connects ALZ program, please call 800.272.3900 to register. Wednesdays, 9/29, 10/6, 10/13, 10/20, 10/27, 11/3, 11/10
ES - Couples	Seminole	1st	Wednesday	10:30 a.m.	One Senior Place	715 Douglas Avenue Altamonte Springs, FL 32714	Martha Purdy and Anita Vargas	Please call 800.272.3900 to register. Couples Support Group for person with dementia (early stage) and care partner.
ES- Social	Seminole	Various	Wednesday	1 p.m.	One Senior Place	715 Douglas Ave, Altamonte Springs, FL 32714	Pamela Levin	Memories in the Making program, please call 800.272.3900 to register. Dates include , September 8, 15, 22, and 29, October 6, 13, 20, 27, and November 3, 10, and 17.
Caregiver	Escambia	2nd	Tuesday	6 p.m. CT	Anchor Neuroscience	850 S Palafox St., #103, Pensacola, FL 32502	Lelanya Taber	

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Alzheimer's Association, Florida Gulf Coast Chapter, Program Schedule

COUNTY	DATE	TIME	TYPE	TITLE	RSVP		LOCATION	ADDRESS	CITY
Pinellas	September 14, 2022	11 a.m.	In-Person	ALZ STARS			Barbara S. Ponce Public Library	7770 52nd St. N.	Pinellas Park
Pinellas	September 21, 2022	11 a.m.	In-Person	Understanding Alzheimer's and Dementia			Barbara S. Ponce Public Library	7770 52nd St. N.	Pinellas Park
Pinellas	October 8, 2022	9 a.m. -12 noon	In-Person	Walk to END ALZ - Pinellas County		Learn More	Pointer Park	1000 3rd St. S	Saint Petersburg
Pinellas	October 19, 2022	11 a.m.	In-Person	ALZ STARS			Barbara S. Ponce Public Library	7770 52nd St. N.	Pinellas Park
Pinellas	November 9, 2022	11 a.m.	In-Person	ALZ STARS			Barbara S. Ponce Public Library	7770 52nd St. N.	Pinellas Park
Pinellas	December 7, 2022	11 a.m.	In-Person	ALZ STARS			Barbara S. Ponce Public Library	7770 52nd St. N.	Pinellas Park
Pinellas	December 7, 2022	12 p.m.	In-Person	10 Warning Signs of Alzheimer's	800.272.3900		The Oaks of Clearwater	420 Bay Ave.	Clearwater

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Alzheimer's Association, Florida Gulf Coast Chapter, Program Schedule

COUNTY	DATE	TIME	TYPE	TITLE	RSVP		LOCATION	ADDRESS	CITY
Hillsborough	October 22, 2022	9 a.m.	In-Person	Walk to END ALZ - Tampa		Learn More	Raymond James Stadium	4201 N. Dale Mabry Hwy.	Tampa
Hillsborough	November 11, 2022	10 a.m.-2 p.m.	In-Person	Brain Bus Stop		Learn more	Employee Health Fair, Masonite		Tampa
Hillsborough	November 16, 2022	1 p.m.-2 p.m.	In-Person	10 Warning Signs of Alzheimer's	800.272.3900		David Barksdale Senior Center	1801 N. Lincoln Ave.	Tampa
Lee	October 1, 2022	TBD	In-Person	Walk to END ALZ - Fort Myers		Learn More	Florida SouthWestern College	8099 College Pkwy	Fort Myers
Manatee	September 20, 2022	10 a.m. - Noon	In-Person	Understanding Alzheimer's and Dementia	941.792.3141		Palma Sola Presbyterian Church	6510 3rd Ave. West	Bradenton
Manatee	September 27, 2022	11:30 a.m.	In-Person	LUNCH & LEARN- Healthy Living for Your Brain and Body	941.798.9622 ext. 402/404		Bradenton YMCA	3805 59th Street West	Bradenton
Manatee	November 2, 2022	10 a.m.-1 p.m.	In-Person	Brain Bus Stop		Learn more	Senior Fair at the Lakewood Ranch YMCA	5100 Lakewood Ranch Blvd.	Lakewood Ranch

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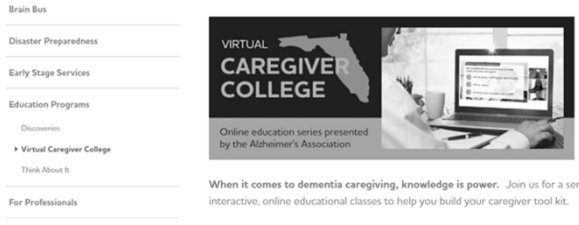
Alzheimer's Association Virtual Caregiver College



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Alz Assoc Caregiver College (continued)

Communication is more than just talking and listening

- It is also about sending and receiving messages
  Through attitude, tone of voice, and body language.
- As the disease progresses individuals living with Alzheimer's or other dementias lose the ability to use words, but families can find new ways to connect.

These presentations allow caregivers to explore how communication changes when someone is living with Alzheimer's Disease

- Learn how to interpret the verbal and behavioral communication
- Identify strategies to help you connect and communicate at each stage of the disease.

Learn about important legal and financial issues to consider

- How to put plans in place
- How to access legal and financial resources near the caregiver

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Family Caregiver Alliance Caregiver College

- https://www.caregiver.org/connecting-caregivers/events-classes/caregiver-college/
- Based in San Francisco, CA – has links to resources in other states as well

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FCA Caregiver College (continued)

College for learning and sharing is offered in two ways:

- As a day-long program
- In a series of 4 classes on consecutive weeks.

Class is open to anyone, is FREE, and includes valuable information and hands-on practice on

- Transferring skills
- Incontinence care and toileting
- Bathing, hygiene and grooming
- Dressing
- Dental care, feeding and nutrition
- Dealing with behavioral issues
- Caregiver self-care

Time is allowed for interaction with other caregivers and sharing of information in a confidential setting is encouraged.

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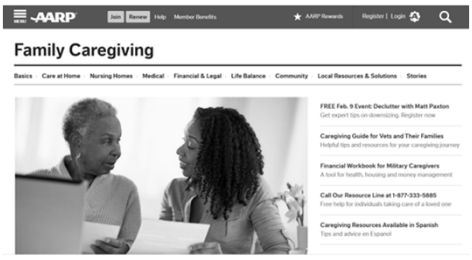
AARP Caregiving Site



- Link: AARP Resources for Caregivers and their Families

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PUBLIC HEALTH CENTER OF EXCELLENCE ON DEMENTIA CAREGIVING

About · Programs & Resources · Technical Assistance · 2022 Conference ·

BOLD Public Health Center of Excellence on Dementia Caregiving presents:

The Public Health Opportunities and Challenges of Dementia Caregiving

June 14th-15th, 2022

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I am a Caregiver

At the Public Health Center of Excellence on Dementia Caregiving we recognize and elevate the essential role informal, unpaid caregivers have in caring for people living with dementia, and the many benefits they bring to our communities – from reducing the need for paid services, to allowing people who need assistance to remain longer in their homes to serving as a bridge between healthcare and socials services, etc.

However, caring for a person with dementia is particularly challenging because the health needs grow and become more complex over time, and require prolonged and intensive assistance. This can take a toll on caregivers' health, wellbeing and productivity if they do not have the support and help they need.

Resources are Available

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Resources for Caregivers

ONECaregiver Resource Center

A centralized platform to support caregivers and adults with intellectual and developmental disabilities who may be at risk of, or are living with, Alzheimer's disease or related dementia.

WeCareAdvisor

The WeCareAdvisor study is evaluating whether use of an online tool (the WeCareAdvisor) can provide caregivers helpful strategies to manage dementia-related behavioral and psychological symptoms that in turn reduce stress and enhance confidence. The WeCareAdvisor walks caregivers through an easy-to-use step-by-step approach to understand why dementia-related behavioral and psychological symptoms (such as agitation, restlessness, irritability, repeated questions or other behaviors) occur and provides strategies that are customized to the family's situation to help manage such behaviors.

Caring for People with Memory Loss Conference Virtual Library

Since 2008, the University of Minnesota has hosted the annual Caring for People with Memory Loss Conference. The Conference includes a virtual library, organized by topic, that offers recorded presentations, information, tools, and resources for those caring for someone with memory loss.

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Email from PHCOE

Register for our upcoming event!

PU koffs004@umn.edu on behalf of phcoe-dc University of Minnesota <phcoe-dc@umn.edu>
To

Retention Policy UHGInbox (90 days) Expires 1/4/2023

External Email

If there are problems with how this message is displayed, click here to view it in a web browser.

Greetings Public Health colleagues,

We are excited to announce our upcoming event "Natural Disasters and Dementia Caregivers: A Roundtable Discussion on Public Health Action"!

We will explore the role and opportunities for public health agencies to support people living with dementia and their family caregivers through preparedness, response and recovery from natural disasters.

See below for more details and registration.

We hope to see you there!
Your PHCOE-DC team

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Summary

- Reviewed the effects of a vast amount of uncompensated care in the U.S. each year (~$500 billion)
- Identified the primary causes of burnout for caregivers of patients
- Described differences between Formal and Informal Caregiving
- Described the application of Burnout Theory
- Reviewed the signs and symptoms of burnout in caregivers
- Identified multiple resources and methods to get these caregivers the help and treatment they need for their burnout

59

References – 1

Podcast: created July 2021; by Christina Maslach, PhD
- https://www.apa.org/research/action/speaking-of-psychology/burnout#

Caregiving:
- https://www.caregiving.org/caregiving-in-the-us-2020/

Caregiving Executive Summary:
- https://www.caregiving.org/wp-content/uploads/2020/08/AARP1316_ExecSum_CaregivingintheUS_508.pdf

Supporting Caregivers (CDC Site)
- https://www.cdc.gov/aging/publications/features/supporting-caregivers.htm?ACSTrackingID=USCDC_944-DM71712&ACSTrackingLabel=Year-in-Review%202021&deliveryName=USCDC_944-DM71712

60

References – 2

Prevalence and Characteristics of Subjective Cognitive Decline Among Unpaid Caregivers:

- https://www.cdc.gov/mmwr/volumes/70/wr/mm7046a1.htm

Behavioral Risk Factor Surveillance System (BRFSS):

- https://www.cdc.gov/aging/data/index.htm

Family Caregiving Advisory Council:

- https://acl.gov/programs/support-caregivers/raise-family-caregiving-advisory-council

Alzheimer's Association Caregiving Site:

- https://www.alz.org/help-support/caregiving

61

References – 3

Prevalence and Characteristics of Subjective Cognitive Decline Among Unpaid Caregivers:

- https://www.cdc.gov/mmwr/volumes/70/wr/mm7046a1.htm

Behavioral Risk Factor Surveillance System (BRFSS):

- https://www.cdc.gov/aging/data/index.htm

Alzheimer's Association Caregivers College:

- https://alz-org.zoom.us/meeting/register/tJwtfumvrTgsHdXr4gyW3_WbTSNwDzsDW_38

Family Caregiving Advisory Council:

- https://acl.gov/programs/support-caregivers/raise-family-caregiving-advisory-council

62

References – 4

Podcast: *Why we're burned out and what to do about it* by Christina Maslach, PhD

- https://www.apa.org/research/action/speaking-of-psychology/burnout#

Alzheimer's Association: Specific for Caregivers of Dementia Patients

- https://www.alz.org/help-support/caregiving?&wt.mc_id=enews2021_10_06&utm_source=enews-aff-38&utm_medium=email&utm_campaign=enews-2021-10-06

CDC - Caregiving:

- https://www.cdc.gov/aging/publications/journal.htm?ACSTrackingID=USCDC_944-DM71712&ACSTrackingLabel=Year-in-Review%202021&deliveryName=USCDC_944-DM71712

JAMDA Article: Comparing the Effects of Grief and Burden on Caregiver Depression in Dementia Caregiving (Published - January, 25, 2019)

- https://www.jamda.com/article/S1525-8610(18)30665-0/fulltext

63

Potential Future Studies of this Topic

- Studies linking Caregiver Burnout to Emergency Room Visits, Unnecessary Hospital Admissions and Readmissions
- Support models for Caregivers that will reduce the healthcare expenditures attributed to those they care for

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Questions?

Thank you for your attendance today!

Contact Information:

- **Gregory James, DO, MPH, CMD**
  gregory.j.james@optum.com
- **Nicholas James, Ph.D.**
  Nicholas.James@va.gov

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Optum

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Moving Forward to Improve Post-Acute & Long-Term Care

Suzanne M. Gillespie MD RD CMD FACP AGSF
Associate Professor of Medicine
University of Rochester Division of Geriatrics & Aging
FMDA Best Care Practices in the Post-Acute and Long-Term Care Continuum
11/4/2022

1

Learning Objectives

At the conclusion of this presentation participants should be able to:

- Discuss important PALTC policy issues for 2022.
- Explore opportunities for advocacy related to nursing home care.
- Discuss strategies to improve nursing home care

2

Speaker Disclosures

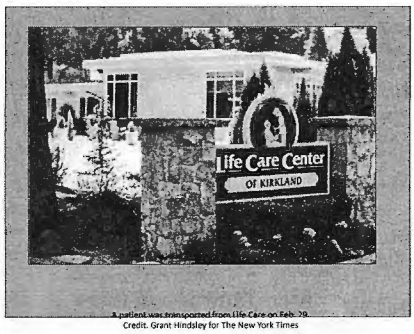
I have no relevant financial relationships.

The views expressed in this presentation are those of the presenter and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

I am the President of AMDA – The Society for Post-Acute & Long-Term Care

3

3



A patient was transported from Life Care on Feb. 29.
Credit. Grant Hindsley for The New York Times

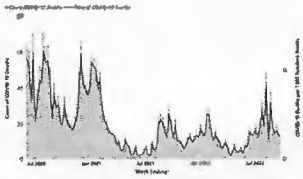
February 28, 2020
First Positive COVID-19 nursing home in King County, Washington

Here we are [redacted] days later...

4

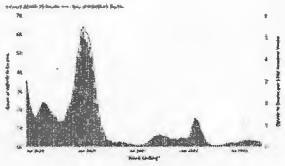
COVID-19 Nursing Home Deaths among and Rate per 1,000 Resident-Weeks in US Nursing Homes

Nursing Home Staff



2,699 Total Staff COVID-19 Deaths

Nursing Home Residents

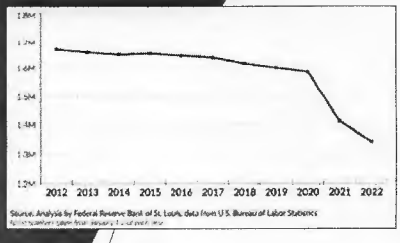


157,898 Total Resident COVID-19 Deaths

www.cdc.gov
National Healthcare Safety Network

5

THE DECLINE OF EMPLOYEES IN U.S. NURSING HOMES



Source: Analysis by Federal Reserve Bank of St. Louis, data from U.S. Bureau of Labor Statistics

- Lost 235,000 NH employees since March 2020
- 15% of NH workforce, gone.
- Surveys suggest another 1/3 will leave before the end of 2022
- ~40% of NH residents live in facilities that are financially at risk of closure in 2022.

6

Staffing Shortages (Percent of Facilities with a shortage of Nurse &/or Aides)

https://www.aarp.org/ppi/issues/caregiving/info-2020/nursing-home-covid-dashboard.html 8/21/2022

7

OUT OF CLUTTER,
FIND SIMPLICITY.
FROM DISCORD,
FIND HARMONY.
IN THE MIDDLE OF
DIFFICULTY LIES
OPPORTUNITY.

8

9

What improvement would you identify?

10

Biden Plan to Improving Safety and Quality of Care in Nursing Homes

11

National Academies Science Engineering Medicine:

The National Imperative to Improve Nursing Home Quality

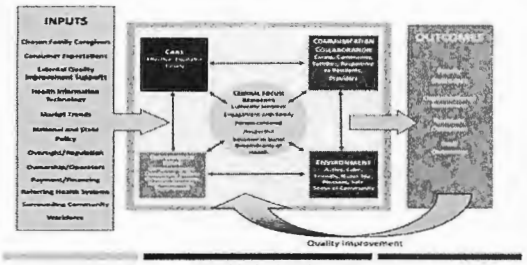
Honoring Our Commitment to Residents, Families, and Staff

Vision:

Nursing home quality is that residents of nursing homes receive care in a that **safe environment honors their values** and preferences, **addresses goals** of care, promotes **equity,** and **assesses benefits** and **risks** of care and treatments.

12

Conceptual Model of Nursing Home Quality



The National Academies of SCIENCES · ENGINEERING · MEDICINE

13

National Academies Science Engineering Medicine:

The National Imperative to Improve Nursing Home Quality

7 conclusions

1. The way in which the United States finances, delivers, and regulates care in nursing home settings is **ineffective, inefficient, fragmented, and unsustainable.**
2. A **mandate** exists to **initiate fundamental change** is necessary.
3. [illegible]
4. Ensure that quality improvement initiatives are implemented using strategies that **do not exacerbate disparities** in resource allocation, quality of care, or resident outcomes.
5. High quality research is needed to advance the quality of care in nursing homes.
6. The nursing home sector has suffered for many decades from both **underinvestment in ensuring the quality of care** and a **lack of accountability** for how resources are allocated.
7. All relevant federal agencies need to be granted the authority and resources from the U.S. Congress to implement the recommendations of this report.

nationalacademies.org/nursing-homes, April 9, 2022

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National Academies Science Engineering Medicine:

The National Imperative to Improve Nursing Home Quality

7 Goals

1. Deliver **comprehensive, person-centered, equitable care** that ensures residents' health, quality of life, & safety, promotes autonomy, & manages risk.
2. Create a well-prepared, empowered, & appropriately compensated workforce.
3. [illegible]
4. Create a more rational & robust financing system.
5. Design a more effective & responsive system of **quality assurance**.
6. Expand & enhance **quality measurement & continuous quality improvement**.
7. Adopt **health information technology** in all nursing homes.

nationalacademies.org/nursing-homes
April 9, 2022

15

Root cause is the system, not the facilities

how do we keep nursing home care moving forward?

16

Workforce

17

Staffing Requirements

- 2001 CMS study "a range of serious problems including malnutrition, dehydration, pressure sores, abuse and neglect . . . have pointed to nurse staffing as a potential root cause"

Proposed Minimum Nurse Staffing Standards for U.S. Nursing Homes in 2001

	Short-stay	Long-stay
RN Hours per Resident Day	0.55	0.75
LPN/LVN Hours per Resident Day	1.15	1.3
Nursing Assistant Hours per Resident Day	2.4	2.8
Total Nursing Hours per Resident Day	4.1	4.1

Feuerberg, 2001

- According to Mueller et al. (2006) staffing is *presumed* to affect the quality of care and life of nursing home residents.
- Most evidence supports association between inadequate RN nurse staffing & poor quality of care (Hospitalizations, survey deficiencies). Results mixed association LPN or NA staffing
- According to other literature, it remains inconclusive about staffing elements that directly impact the quality of resident care (Spilsbury et al., 2011)

18

Staffing Requirements

- The Nursing Home Reform Law of 1987
  - facilities must have a RN 8 consecutive hours, 7 days a week and licensed nurses available 24 hours a day, with "sufficient" nursing staff to meet residents' needs.
- The Payroll Based Journal (PBJ) 2016
  - new insights to how nursing homes are staffed, including variability (weekdays & weekends);
  - ongoing challenge about what constitutes "sufficient" nursing staff remains, with a high degree of subjectivity.
- 2017-2019 updates to OBRA regulations
  - No mandates on staffing; Revised regs & guidelines criterion for citing deficiencies in staffing
- June 2021 NYS
  - 3.5 hours per day of clinical staffing, of which at least 2.2 hours are provided by a CNA or nurse aide and at least 1.1 hours are provided by a licensed nurse
- April 2022 FL
  - >=3.6 hours of direct care per resident per day of which 2.0 hours provided by CAN & 1 hour of licensed nurse direct care per resident per day

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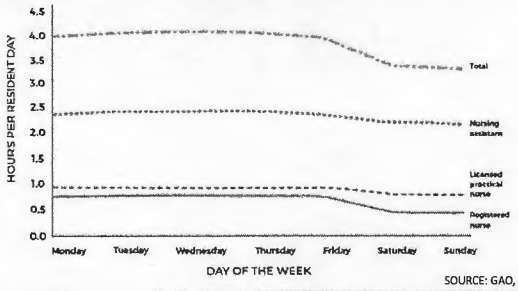
Staffing Related Issues

- hours per resident day
- high staff turnover and low retention
- inadequate expenditures on nurse staffing
- needs related to staff training/competencies
- ineffective or inadequate management and supervision

20

Nursing Home Staffing by Nurse Type and Day of Week.



SOURCE: GAO, 2021

21

Nursing Home Nursing Workforce Turnover

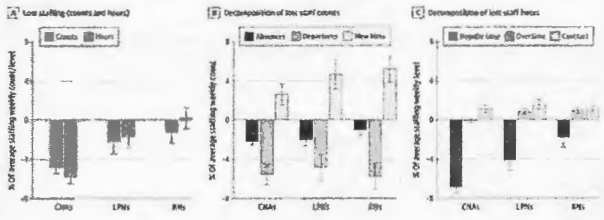
- Mean annual turnover rates for total nursing staff ~ 128 %
- Median annual turnover rates for total nursing staff ~94 %
- Turnover rates correlated with:
  - Facility location
  - For-profit status
  - Chain ownership
  - Medicaid patient census
  - Star ratings.

Gandi et al. Health Affairs. March 2021. HTTPS://DOI.ORG/10.1377/HLTHAFF.2020.00957

22

22

Change in Nursing Home Staffing Counts and Hours During a Severe COVID-19 Outbreak by Staff Type



Shen K, M et al. Staffing Patterns in US Nursing Homes During COVID-19 Outbreaks. JAMA Health Forum. 2022;3(7):e222151.

23

AMDA Position Statement :

Appropriate Staffing Standards in Post-Acute and Long-Term Care

- While having a sufficient number of staff is critical, staffing levels **based only on resident-to-worker ratios will not adequately assess or meet resident needs.**
  - continued research regarding staffing levels (number and skill mix) that will optimally meet the individual needs of residents in nursing homes.
  - support all options to recruit and train staff
  - continue to work with other stakeholders to address the current staffing crisis.
- The quality of a resident's life is significantly affected by care that is **competent, compassionate, and responsible.**

July 2021
AMDA Staffing Standards

24

AMDA Position Statement :
Appropriate Staffing Standards in Post-Acute and Long-Term Care

- Person-centered and evidence-based dementia care requires 24-hour caregiving.
  - As more residents in PALTC are diagnosed with dementia or other cognitively impaired related diagnosis, facilities should have the **flexibility and resources to staff adequately based on needs specific** to this population.
- Furthermore, adequate evening/night staff may greatly reduce the inappropriate use of higher risk medications such as anxiolytics, narcotics, and antipsychotic medication regimens.

July 2021
AMDA Staffing Standards

25

AMDA Position Statement :
Appropriate Staffing Standards in Post-Acute and Long-Term Care

- The development of staffing levels or ratios should be done cautiously, to **avoid unintended consequences**. For example, a shortage of available workers to achieve compliance with a federal mandate could lead to challenges with access to nursing home care, particularly in rural areas.
- AMDA strongly supports **increasing PALTC staff compensation** (salary and benefits) to match the ongoing competitive market of other health care delivery sites.

July 2021
AMDA Staffing Standards

26

Any decisions about staffing need to consider broader issues, including:

- the complexity and acuity of a facility's population;
- the functional level of residents and services required;
- creating consistent work schedules that are flexible to accommodate the changing needs of the residents along with improving consistent communication and documentation regarding the care needs of residents;
- the existence of staffing shortages for some types of staff in some geographic locations, and temporary staffing shortages due to such events as employee illness or termination;
- defining and including other categories of caregivers, such as medication aides, feeding assistants, restorative aides, family members, and activities professionals;

July 2021
AMDA Staffing Standards

27

More than warm bodies: Social Work Staffing

Federal Requirement:

- NHs with 120 or more beds to hire a qualified social worker on a full-time basis
- "qualified social worker" = minimum of a B.S.W. or a bachelor's degree in a human services field including, but not limited to, sociology, gerontology, special education, rehabilitation counseling, or psychology and who has 1 year of supervised SW in a health care setting working directly with individuals
- Some states do have individual regulations on SW

Current

- 2/3 NHs do not have a social services staff person
- Only 37 % of nursing homes have a degreed and licensed social worker at the helm of social services
- Evidence on the characteristics, education and training, job satisfaction, and turnover of social services directors is limited or nonexistent.

Bern-Klug et al., 2021a
National Academies Press. https://doi.org/10.17226/26526.

28

More that Warm Bodies (continued)...

AMERICAN BOARD OF POST-ACUTE AND LONG-TERM CARE MEDICINE

Defining the Core Skills and Activities of the Attending Physician in Post-Acute and Long-Term Care

A recent article in JAMDA details an ABPLM job analysis of attending physicians in long term/post-acute care that documents the unique and specific role they play in this setting.

DOI: https://doi.org/10.1016/j.jamda.2021.06.007

29

Key Advocacy: Public Medical Director Registry

Public must have access to information on clinical leadership

- Bi-partisan letter from Congress asking CMS to implement
- States have begun conversations to implement on state level
- Continued discussions with CMS

September 15, 2022

H.R.8832 - To amend title XI of the Social Security Act to ensure nursing facilities report information on medical directors of such facilities. (Rep Levin (D-CA), Rep Fitzpatrick (R-PA)
congress.gov/hr8832

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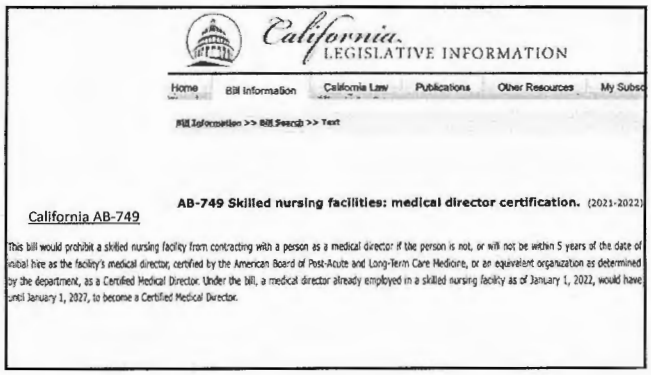
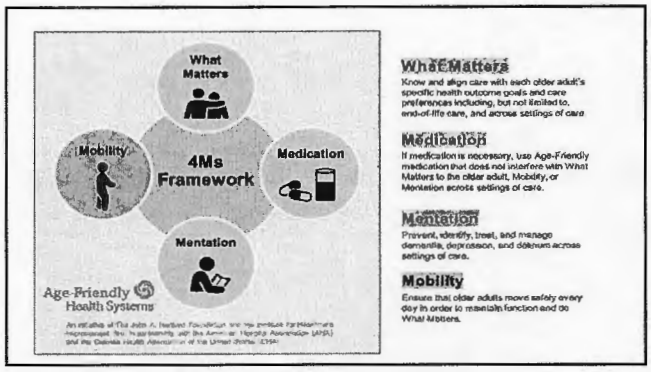
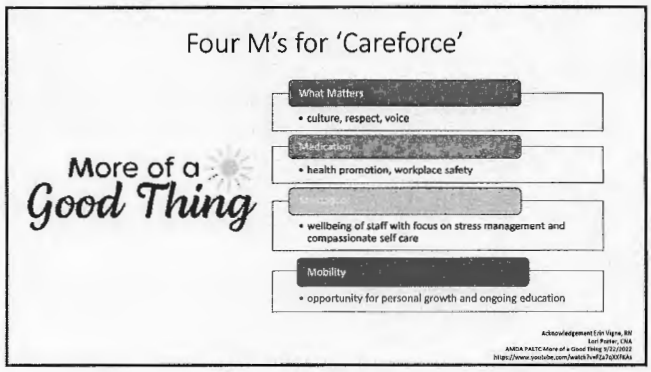

California
LEGISLATIVE INFORMATION
Home
Bill Information
California Law
Publications
Other Resources
My Subsc
Bill Information >> Bill Search >> Text
AB-749 Skilled nursing facilities: medical director certification. (2021-2022)
California AB-749
This bill would prohibit a skilled nursing facility from contracting with a person as a medical director if the person is not, or will not be within 5 years of the date of initial hire as the facility's medical director, certified by the American Board of Post-Acute and Long-Term Care Medicine, or an equivalent organization as determined by the department, as a Certified Medical Director. Under the bill, a medical director already employed in a skilled nursing facility as of January 1, 2022, would have until January 1, 2027, to become a Certified Medical Director.

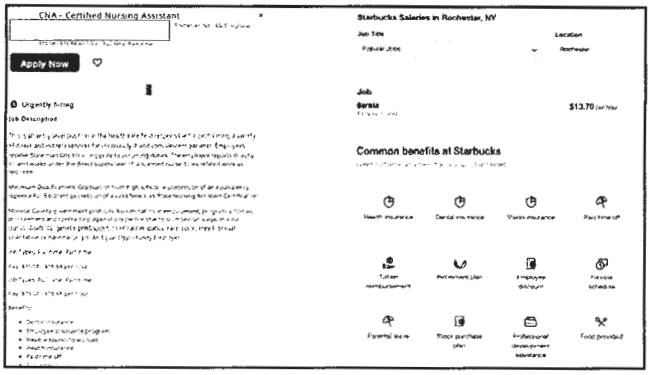
31


What Matters
Mobility
4Ms Framework
Medication
Mentation
Age-Friendly Health Systems
What Matters
Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.
Medication
If medication is necessary, use Age-Friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.
Mentation
Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care.
Mobility
Ensure that older adults move safely every day in order to maintain function and do What Matters.

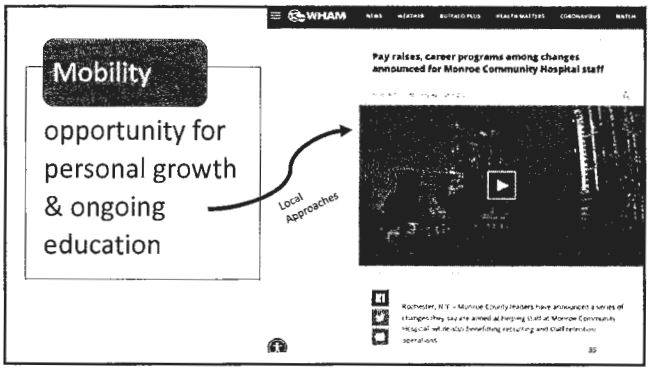
32


Four M's for 'Careforce'
More of a Good Thing
What Matters
• culture, respect, voice
Medication
• health promotion, workplace safety
• wellbeing of staff with focus on stress management and compassionate self care
Mobility
• opportunity for personal growth and ongoing education

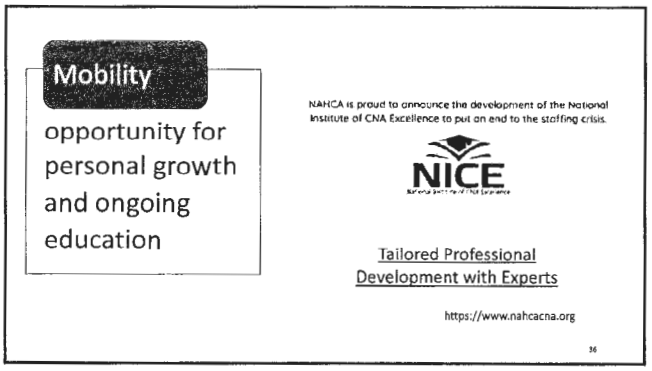
33


CNA - Certified Nursing Assistant
Apply Now
Urgently hiring
Job Description
Starbucks Salaries in Rochester, NY
Job Title
Location
Rochester
Job
Barista
$13.70 per hour
Common benefits at Starbucks
Health insurance
Dental insurance
Vision insurance
Paid time off
Tuition reimbursement
Retirement plan
Employee discount
Flexible schedule
Parental leave
Stock purchase plan
Professional development assistance
Food provided

34


Mobility
opportunity for personal growth & ongoing education
Local Approaches
WHAM
Pay raises, career programs among changes announced for Monroe Community Hospital staff
Rochester, N.Y. – Monroe County leaders have announced a series of changes they say are aimed at helping staff at Monroe Community Hospital

35


Mobility
opportunity for personal growth and ongoing education
NAHCA is proud to announce the development of the National Institute of CNA Excellence to put an end to the staffing crisis.
NICE
Tailored Professional Development with Experts
https://www.nahcacna.org
36

36

Mobility

opportunity for personal growth and ongoing education

NAHCA is proud to announce the development of the National Institute of CNA Excellence to put an end to the staffing crisis.

NICE

Tailored Professional Development with Experts

https://www.nahcacna.org

37

37

Mobility

opportunity for personal growth and ongoing education

Growth & Empowerment:
- Collaboration in QI
- Orienting new staff (leadership)
- Upfront contribution of expertise to design of new programs
- Active solicit feedback
- Observe for other places team members can share
- Ask staff

"It is the coming together of all different people that will change the way we think about work and care for residents."

Gillespie et al. J Am Med Dir Assoc. 2016. 17(2):136-145

38

38

Medication

Health promotion

- Health benefits
- Living wage

- Proximal daycare
- Flexible scheduling
- Outdoor spaces, Walking meetings
- Non-working lunches
- Quiet break spaces
- Restorative break opportunities

- Safe resident handling efforts
- Equipment: good PPE

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Medication

Health promotion & Workplace safety

"On the days my daughter is hard at work, I don't have to cook lunch!"

The New York Times

In a Japanese Nursing Home, Some Workers Are Babies

They get paid in formula and diapers, and their work hours are flexible, in a program that connects people across generations and brightens lives.

40

40

Medication

Workplace safety

- Safe resident handling efforts
- Equipment: good PPE

41

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Medication

Workplace safety

- Safe resident handling efforts
- Equipment: good PPE

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Key Features of a 'Culture of Safety'

Medication

Workplace safety: extends to psychological safety

A blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment

Organizational commitment of resources to address safety concerns

Adapted from the Patient Safety Network, Culture of Safety

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Medication

Workplace safety -> Psychological safety

Behaviors with Potential for Adverse Effects

- *Human error*
  An unintentional failure that causes, or nearly causes, harm; includes events due to circumstances beyond an individual's control
- *At-risk behavior*
  A choice where risk is not recognized or mistakenly perceived to be justified under the circumstances
- *Reckless behavior*
  Conscious disregard of substantial and unjustifiable risk of harm

Adapted from the Patient Safety Network, Culture of Safety

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Reimagining the Nursing Home Survey Processes Through the Lens of Just Culture

Behaviors Associated With the Potential for Adverse Events	CMS Response Under Existing Process	Potential Regulatory Response Using Principles of Just Culture
Human error A resident was on a leave of absence longer than anticipated and missed medications	Penalize based on scope (isolated) and severity (actual harm that is not immediate)	*Accept risk* • Recognize that the facility made reasonable efforts to prevent this adverse event, which was out of the facility's control *System redesign* • Systematically review the event to identify potential root causes and develop a contingency plan for residents with a longer than expected leave of absence *Coach* • Regulatory survey team may refer the nursing home to local, state, or regional agencies that offer educational and technical resources for coaching
At-risk behavior A surveyor finds antibiotic prescriptions based on urinalysis results, without documentation of symptoms or culture results	Penalize based on scope (pattern) and severity (actual harm that is not immediate)	• Require staff education on antibiotic stewardship principles and the nursing home's antibiotic use protocol for suspected urinary tract infections *System redesign* • The nursing home revises its protocols to require the presence of signs and symptoms that localize to the genitourinary tract prior to collecting a urine sample
Reckless behavior Several staff members are frequently wearing masks below their nose	Penalize based on scope (pattern) and severity (immediate jeopardy to resident health or safety)	*Sanction* • Penalize organization for failure to recognize and address reckless behavior by staff *Coach* • Regulatory survey team may refer the nursing home to local, state, or regional agencies that offer educational and technical resources for coaching

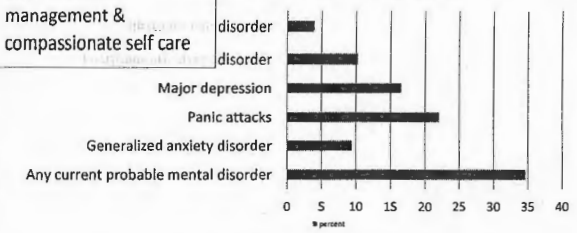
Guar, Gillespie et al, JAMDA S1525-8610(21) 01069-

45

Mind

wellbeing of staff with focus on stress management & compassionate self care

of Mental Disorders Among sing Home Workers



https://www.jamda.com/article/S1525-8610(22)00261-4/fulltext#secsectitle0125

46

Gratitude Practice for Nurses

Mind

wellbeing of staff with focus on stress management and compassionate self care

TOOLKIT FOR WELL-BEING

Gratitude guide for Nurses Toolkit

American Nurses Foundation
Greater Good Science Center at the University of California, Berkeley

- Understand comprehensive wellness programs.
- *Small reach nursing home changes*
  - Create systematic mechanisms to debrief
    - Memorials
    - Sentinel Event debriefings
  - Empower all members of the team to participate in Performance Improvement
  - Incorporate systematic mindfulness
    - Make it routine.
      - Whole Health
        - Who are you?
        - What matters most?
      - Breathing exercise at end of/start meetings
      - Standing yoga
  - Public recognition: gratitude, celebration

47

47

One Minute Breathing Exercise

An example

48

What Matters

Culture,
voice,
respect

Practice & Workplace of Choice:
We Are PALTC

49

What Matters

Culture,
voice,
respect

Create Community.

50

What Matters

Culture, voice, respect
↓↓
"change attitudes, knowledge, & skills of the workforce"

Revisiting the Teaching Nursing Home

Revive the 1980s model of :

- NHs can be a "teaching" environment where students, academics, and healthcare workers collaborate to improve care for residents.
- Create opportunities for researchers to experiment with new methods of care
- Foster foster careers in nursing homes and geriatrics.
- Multisite project that creates partnerships between schools of nursing and nursing facilities in Pennsylvania around a 4M's model

https://www.johnahartford.org/grants-strategy/revisiting-the-teaching-nursing-home

51

What Matters

Culture,
voice,
respect

Promote Nursing Home Care as Equitable & Inclusive

The Long-Term Care Equality Index

An initiative of SAGE and the Human Rights Campaign Foundation

Benefits

- Provide high-quality, welcoming environments to LGBTQ residents and assurance to their families and friends that their loved ones are safe.
- Public recognition as a leader in providing LGBTQ-welcoming services.
- Access to best practices for LGBTQ diversity, equity and inclusion.
- Access to quality education and resources for serving LGBTQ residents.
- Technical assistance with meeting state and federal regulatory requirements related to serving LGBTQ residents, including
- CMS Requirements of Participation regarding person-directed services and trauma-informed care.
- Improved ability to develop LGBTQ culturally appropriate marketing for future staff, clients, and funders.

www.thelei.org

52

What Matters

Culture,
voice,
respect

Small Acts of Change

- Being Kind
  - Learn the names of the others in the Careforce
  - Say "thank you",
  - "I appreciate you because of xyz"
  - Ask "are you okay?"
- Build processes that invite others to speak first.
- All teach, all learn [1]
  - Collaborative learning promotes purpose and value
  - Engaged teams are more effective
    - In-services, lunch and learn, trainee experiences
- Leadership rounds (two ears, one mouth)

1 Project Echo

53

Thank you.

54

THE SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE™

amda

NATIONAL UPDATE

Suzanne M Gillespie MD RD CMD
President

1

MISSION

We promote and enhance the development of competent, compassionate, and committed medical practitioners and leaders to provide goal-centered care across all post-acute and long-term care settings.

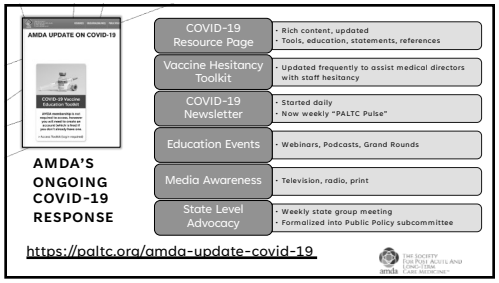
Dedicated to defining and improving quality, we advance our mission through timely professional development, evidence-based clinical guidance, and tireless advocacy on behalf of members, patients, families, and staff.

2

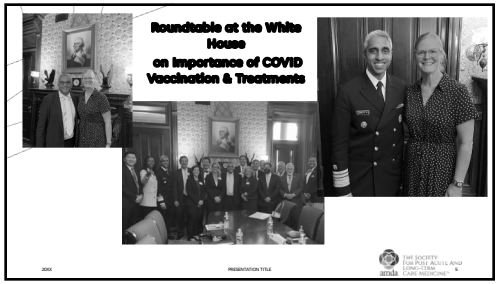
NEVER LET A GOOD CRISIS GO TO WASTE

Winston Churchill

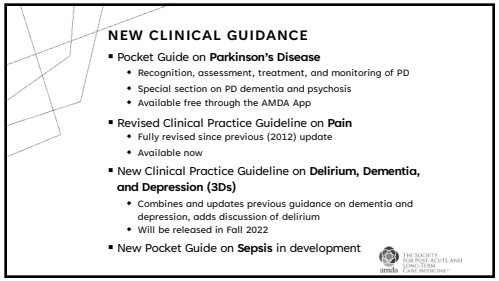
3


AMDA UPDATE ON COVID-19
COVID-19 Vaccine Education Toolkit
AMDA'S ONGOING COVID-19 RESPONSE
COVID-19 Resource Page
• Rich content, updated
• Tools, education, statements, references
Vaccine Hesitancy Toolkit
• Updated frequently to assist medical directors with staff hesitancy
COVID-19 Newsletter
• Started daily
• Now weekly "PALTC Pulse"
Education Events
• Webinars, Podcasts, Grand Rounds
Media Awareness
• Television, radio, print
State Level Advocacy
• Weekly state group meeting
• Formalized into Public Policy subcommittee
https://paltc.org/amda-update-covid-19

4


Roundtable at the White House
on Importance of COVID Vaccination & Treatments
2001
PRESENTATION TITLE

5


NEW CLINICAL GUIDANCE
Pocket Guide on Parkinson's Disease
Recognition, assessment, treatment, and monitoring of PD
Special section on PD dementia and psychosis
Available free through the AMDA App
Revised Clinical Practice Guideline on Pain
Fully revised since previous (2012) update
Available now
New Clinical Practice Guideline on Delirium, Dementia, and Depression (3Ds)
Combines and updates previous guidance on dementia and depression, adds discussion of delirium
Will be released in Fall 2022
New Pocket Guide on Sepsis in development

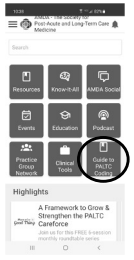
6

CLINICAL EDUCATION/PROFESSIONAL DEVELOPMENT

- **Online Core Curriculum** redesign underway
  - New instructional design
  - More interactive format
  - Current content updates
- **New Provider Course** being developed
  - An introduction to PALTC medicine for practitioners new to the setting
  - Applicable for physicians, nurse practitioners, and physician assistants

7

AMDA'S APP



Get easy access to:

- **Your Purchased & Licensed Resources**
  - **Guide to PALTC Coding**
  - **Know-It-All Series Tool (reimagined for App)**
  - **Pocket Guides (optimized for App)**
- **Clinical Tools – NEW FOR MEMBERS!**
  - **"FRAIL" Screening Tool**
  - **SARC-F Screen for Sarcopenia**
  - **SNAQ (Short Nutritional Assessment Questionnaire)**
  - **Rapid Cognitive Screen**
- **AMDA Social**
- **And More!**

Download on the App Store | GET IT ON Google Play

8

AMDA'S PODCAST CHANNELS

https://paltc.org/podcast

- AMDA On-The-Go
- JAMDA On-The-Go
- Caring On-The-Go
- AMDA On-The-Hill
- AMDA In-The-States
- Geriatric Journal Club

9

DRIVE TO DEPRESCRIBE
Optimizing Medication Use in PALTC

4,500 facilities enrolled & 3 pharmacy partners

Pharmerica, Omnicare, and Consonus are reporting data from the facilities

National educational webinars and "office hours" update calls to share challenges and successes

Regular Zoom calls with over 200 participants – over 650 have registered

https://paltc.org/drive2deprescribe

Most high-risk medication classes identified

Goal: 25% reduction in medication use while optimizing the medication regimen in long-stay residents

Starting with PPIs & supplements

Adding sulfonylureas, antipsychotics & anticholinergics

Data de-identified & aggregated

10

More of a Good Thing

A Framework to Grow and Strengthen the PALTC Careforce, More of a Good Thing expands upon the already successful, evidence-based 4Ms Framework of the Age-Friendly Health System to address the needs of staff, a critical component of any age friendly health system.

https://paltc.org/goodthing

Guided by the themes of the 4Ms for Staff:

- **What Matters** (facility culture, respect, a voice)
- **Medication** (health promotion & workplace safety)
- **Mentation** (wellbeing of staff with a focus on stress management and compassionate self-care), and
- **Mobility** (opportunities for personal growth and career advancement with ongoing education)

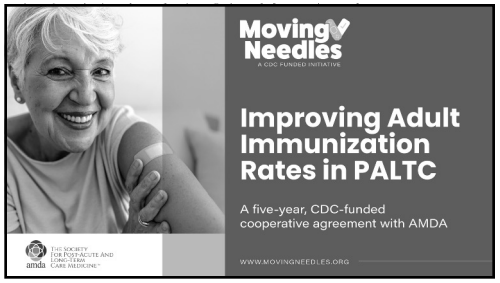
11

SENIOR-FRIENDLY EMERGENCY DEPARTMENTS AND BEST PRACTICES FOR TRANSITIONS OF CARE

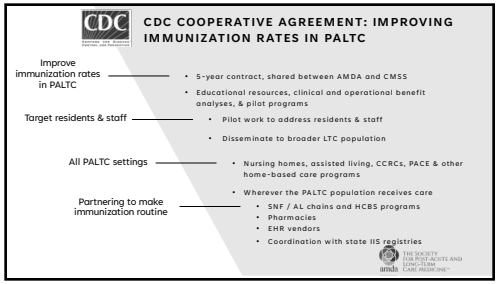
American College of Emergency Physicians

amda THE SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE

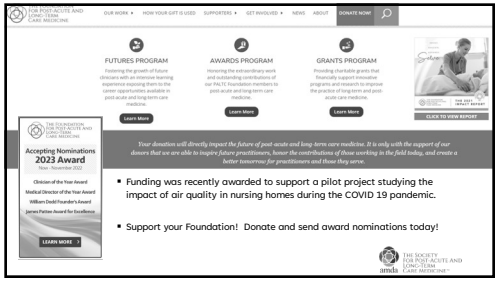
12


Moving Needles
A CDC FUNDED INITIATIVE
Improving Adult Immunization Rates in PALTC
A five-year, CDC-funded cooperative agreement with AMDA
WWW.MOVINGNEEDLES.ORG

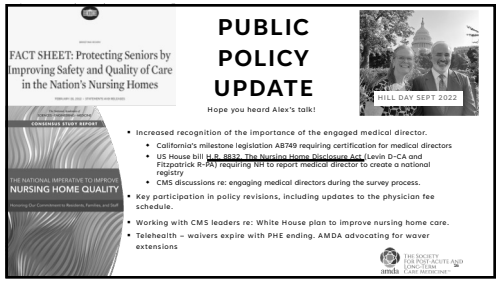
13


CDC COOPERATIVE AGREEMENT: IMPROVING IMMUNIZATION RATES IN PALTC
Improve immunization rates in PALTC
5-year contract, shared between AMDA and CMSS
Educational resources, clinical and operational benefit analyses, & pilot programs
Target residents & staff
Pilot work to address residents & staff
Disseminate to broader LTC population
All PALTC settings
Nursing homes, assisted living, CCRCs, PACE & other home-based care programs
Wherever the PALTC population receives care
Partnering to make immunization routine
SNF / AL chains and HCBS programs
Pharmacies
EHR vendors
Coordination with state IIS registries

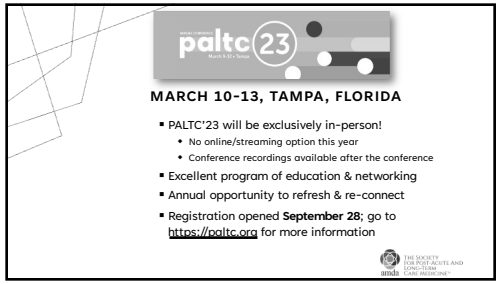
14


FUTURES PROGRAM
AWARDS PROGRAM
GRANTS PROGRAM
Accepting Nominations
2023 Award
Funding was recently awarded to support a pilot project studying the impact of air quality in nursing homes during the COVID 19 pandemic.
Support your Foundation! Donate and send award nominations today!

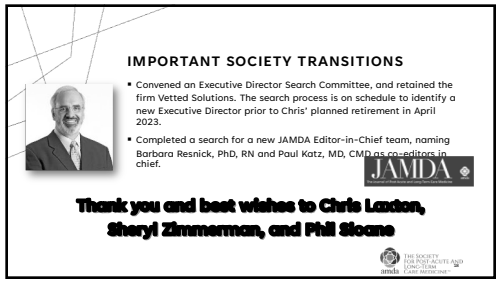
15


FACT SHEET: Protecting Seniors by Improving Safety and Quality of Care in the Nation's Nursing Homes
CONSENSUS STUDY REPORT
THE NATIONAL IMPERATIVE TO IMPROVE
NURSING HOME QUALITY
PUBLIC POLICY UPDATE
Hope you heard Alex's talk!
HILL DAY SEPT 2022
• Increased recognition of the importance of the engaged medical director.
• California's milestone legislation AB749 requiring certification for medical directors
• US House bill H.R. 8832, The Nursing Home Disclosure Act (Levin D-CA and Fitzpatrick R-PA) requiring NH to report medical director to create a national registry
• CMS discussions re: engaging medical directors during the survey process.
• Key participation in policy revisions, including updates to the physician fee schedule.
• Working with CMS leaders re: White House plan to improve nursing home care.
• Telehealth – waivers expire with PHE ending. AMDA advocating for waver extensions

16


paltc 23
MARCH 10-13, TAMPA, FLORIDA
▪ PALTC'23 will be exclusively in-person!
• No online/streaming option this year
• Conference recordings available after the conference
▪ Excellent program of education & networking
▪ Annual opportunity to refresh & re-connect
▪ Registration opened September 28; go to https://paltc.org for more information

17


IMPORTANT SOCIETY TRANSITIONS
▪ Convened an Executive Director Search Committee, and retained the firm Vetted Solutions. The search process is on schedule to identify a new Executive Director prior to Chris' planned retirement in April 2023.
▪ Completed a search for a new JAMDA Editor-in-Chief team, naming Barbara Resnick, PhD, RN and Paul Katz, MD, CMD as co-editors in chief.
JAMDA
Thank you and best wishes to Chris London, Sheryl Zimmerman, and Phil Sloane

18

SUMMARY

The Society's strength and reach continues to be powered by its many dedicated, engaged, and expert volunteers and leadership

We are informed and guided by your expressed needs as members – please keep letting us know what those are

Participate on one or more of our many forums, committees or workgroups

19

THE SOCIETY FOR POST-ACUTE AND LONG-TERM CARE MEDICINE

amda

THANK YOU FOR ALL YOU DO!

Suzanne Gillespie MD RD CMD
Suzanne_Gillespie@urmc.rochester.edu

20

20

GAPNA

Gerontological Advanced Practice Nurses Association

1

2

The premier professional organization that represents the interests of advanced practice nurses, other clinicians, educators, and researchers involved in the practice or advancement of caring for older adults.

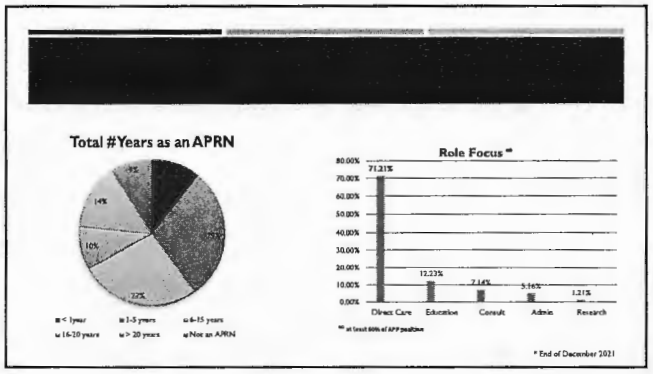
Mission Statement:

Promoting excellence in advanced practice nursing for the well-being of older adults.

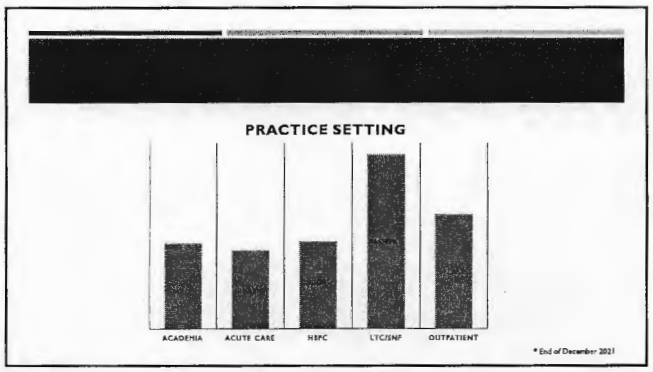
Vision:

To continue to be the trusted leaders for the expert care of older adults.

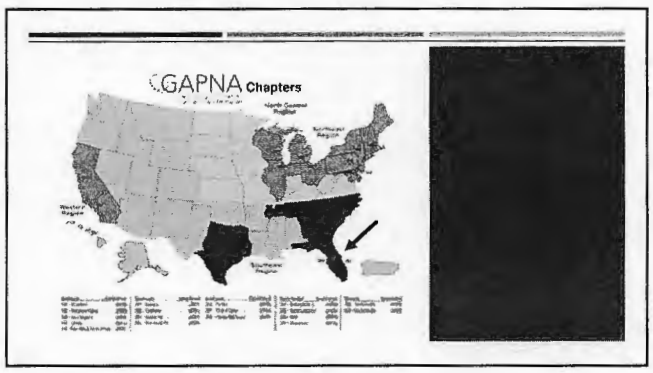
3


Total #Years as an APRN
14%
10%
22%
< 1 year
1-5 years
6-15 years
16-20 years
> 20 years
Not an APRN
Role Focus **
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
71.21%
12.23%
7.14%
5.16%
1.21%
Direct Care
Education
Consult
Admin
Research
** at least 80% of APP position
* End of December 2021

4


PRACTICE SETTING
ACADEMIA
ACUTE CARE
HSPC
LTC/SNF
OUTPATIENT
* End of December 2021

5


GAPNA Chapters

6

Committees

- Awards
- Chapter Leadership
- Communications
- Conference Planning
- Education
- Health Affairs
- Historical
- Nominations
- Research

Special Interest Groups (SIGs)

- Acute and Emergent Care
- GeroPsych
- Hospice/Palliative Care
- House Calls
- PAC/LTC
- Veteran's Care

7

Gerontology Resources for APRN Preceptors and Students (8th edition)

Gerontology Resources for APRNs in Acute & Emergent Care Settings (2nd edition)

8

- American Association of Colleges of Nursing
- American College of Surgeons
- America's Health Rankings Senior Report
- Emergency Nurses Association (ENA) Taskforce
- GSA Nurse Leader Forum
- APRN Workgroup with NP Round Table
  - Acute Care & Primary Care Workgroup
- National Organization of Nurse Practitioner Faculties (NONPF)
  - Workgroup on quality of nurse practitioner education

9

Statement on Diversity, Equity, & Inclusion*

GAPNA CHAT

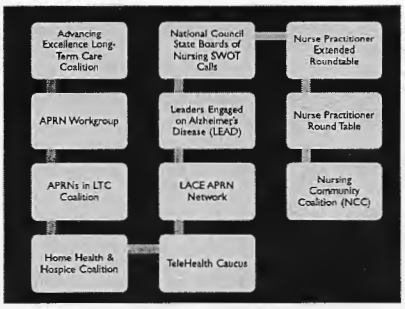
Season 2 launched in August 2022

*Available on GAPNA website.

10

ADVOCACY

GAPNA IS AT THE TABLE.



11

GAPNA LEADERSHIP INSTITUTE

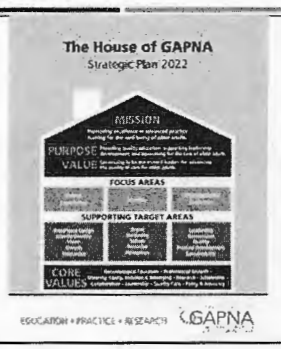
- Fourth cohort of fellows
- Past fellows in leadership roles
  - GLI mentors (2)
  - Board member (1)

12

GNCC
Gerontology Nursing Certification Commission

- Specialty exam for APRNs with 2500 hours experience caring for older adults within the past 5 years
- A Practical Guide for Gerontological Specialist™
- First cohort (2018): Recertification, March 2023

13



14

- Implementation of GAPNA's strategic plan
- Improving long term care
  - Advocacy
    - Collaboration with other organizations
    - Removal of APRN regulatory barriers
  - Education
    - *APRNs new to LTC*
    - APRNs experienced in LTC

15


Save the Date
Honolulu, Hawaii
April 25-29, 2023
Hilton Hawaiian Village
GAPNA
PHARMACOLOGY &
Prescribing in Older Adults

16

Cultivating

A strong community of nurse leaders

NADONALTC

The National Association of Directors of Nursing Administration of Long-Term Care

1

Who is NADONA?

- Since 1986, the National Association of Directors of Nursing Administration (NADONA) is THE leading advocate and educational organization for Nurse Leaders in the post-acute care continuum.
- NADONA was founded by a group of dedicated post-acute care professionals. Over three decades later, our board of directors still consists of post-acute care professionals.
- Today, with thousands of nurse professionals strong, we remain committed to understanding the daily challenges of Nurse Leaders and providing the resources needed for professional success.

NADONALTC

2

Current NADONA Certifications

- Certified Director of Nursing (CDONA™)
- Certified Assisted Living Nurse (CALN™)
- Geriatric Diabetic Certified Nurse (GDCN™)
- Infection Preventionist Board Certified (IP-BC™)
- Certified Licensed Practical Nurse (CLPN™)
- Antibiotic Stewardship Board Certified (AS-BC™)
- Antibiotic Stewardship Certificate of Mastery (ASCOM™)

NADONALTC

3

NADONA's Mission Statement

- NADONA aims to be the leading professional organization for current and aspiring nursing leaders through professional development, board certification, and clinical expertise related to the promotion of health and wellness of individuals in the long term care and post-acute care continuum.

Our Core Values

- Integrity
- Professional Advancement
- Interprofessional Collaboration
- Exceptional Customer Service
- Diversity and Inclusion

4

Our Strategic Objectives

- NADONA envisions a global environment where the individual's health and wellness goals are met by diverse healthcare professionals committed to clinical excellence and population health management, leadership, and advocacy in the specialty of long term and post acute care through board certification, professional development, and the advancement of evidence based practice.

5

Our Accomplishments

- 36 years of successful Annual national conferences.
- An award winning peer reviewed quarterly journal, "The Director".
- A successful scholarship program awarding over a half million dollars in scholarships since inception.
- Seven certifications with over 5,500 number of nurse leaders and healthcare colleagues certified to date.
- A highly acclaimed nurse mentorship program.
- An active professional Corporate Leadership council.
- A highly sought after Nurse Leader of the year Award, with recognition occurring at our annual conference.

6

"No one understands all that you go through
in one day. No one knows the details,
obstacles, and never-ending challenges that
are part of your job as a Nurse Leader.
No one, that is, except NADONA."

Sherrie Dornberger,
RN, GDCN, CADDCT, CDP, IP-BC, CDONA, FACDONA
Executive Director, NADONA

NADONALTC

7

FMDA 31rs Annual Conference and Trade Show
Best Practices in the Post-Acute and Long-term Care Continuum

Best Practices in Pain Management in PALTC

F. Michael Gloth, III, MD, FACP, AGSF

Clinical Professor
Department of Geriatrics, Florida State University College of Medicine

Associate Professor of Medicine
Johns Hopkins University School of Medicine

President and CEO, AMDG Naples 100 Senior Concierge and Consulting, LLC

1

F. Michael Gloth, III, MD

Disclosures

This presenter gets royalties from Handbook of Pain Relief in Older Adults.

"The winning combination of overview and details from current evidence-based medicine will make this handbook attractive to all pain professionals as well as to other professional communities in the health care system, such as nursing staff in hospitals and facilities for the elderly."

Matthias Karst, MD, PhD JAMA, May 4, 2011—Vol 305, No. 17

2

Other Resources

- **Revised Beer's Criteria (https://geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria-for-potentially-inappropriate-medication-use-in-older-adults/CL001)**
- **Gloth FM. (Ed). Handbook of Pain Relief in Older Adults. 2nd Edition. Springer Publishing, New York, NY, 2011 (http://dx.DOI.org/10.1007/978-1-60761-618-4).**
- **Federation of State Medical Boards Policy (https://www.fsmb.org/siteassets/advocacy/policies/opioid_guidelines_as_adopted_april-2017_final.pdf)**
- **www.cdc.gov/drugoverdose/prescribing/guideline.html**

3

Objectives

- **Address Epidemiology**
- **Guidelines**
- **Educate about Opioid Issues**
  - **Addiction**
  - **Diversion**
  - **Additional Concerns**
- **Prescribing, E-prescribing, & Discontinuing**

4

Pain is inadequately treated

- **25-50% of older adults suffer from pain that interferes with daily activities**
- **45-80% in nursing home residents have pain**
- **Age > 70 years is the number one risk factor for inadequate pain management**

5

Cost of Chronic Pain

- **Chronic Pain affects 116 million U.S. Adults**
- **Annual U.S. economic costs for chronic pain is $560-630 Billion Dollars!**

IOM Report 2011: http://books.nap.edu/openbook.php?record_id=13172&page=1 accessed 7/1/2011

6

By the Numbers

- **Each year between 15-20% of the US population experiences acute pain**
- **Chronic pain affects approximately 30% of the population annually**
- **PAIN IS THE MOST COMMON REASON PATIENTS SEEK MEDICAL ATTENTION**

7

AGS Guidelines for the Management of Persistent Pain in Older Persons

- **Pain not a normal part of aging**
- **Assessment & Management**
- **Health System Barriers**
  - **Administrative**
  - **Regulatory**
    - **Revise Regulations that have created barriers**
  - **QI**

J Am Geriatr Soc. 2009; 37 (8) 1331-46.

8

JCAHO Standards for Pain Management

- **Recognize patients' rightst to appropriate pain management**
- **Screen for presence and intensity of pain**
- **Ereasess pain regularly**
- **Ensure staff competency in pain assessment and management**
- **Educate pts and family about effectic pain management**
- **Address patient needs for pain management in discharge planning**
- **Maintain pain control performance improvement plan**

www.jcaho.org/standar/pm_mpfrm.html

9

Reasons for Inadequate Pain Management

Physician Reasons
- Insufficient Assessment (>70%)
- Fear of using some medication, esp. opioids (>60%)
- Inadequate knowledge (>50%)

Patient Reasons
- Inadequate Reporting
- Fear of stigma of opioids

10

Wong-Baker FACES Pain Rating Scale

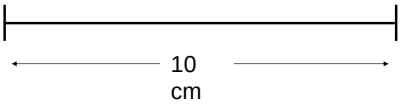
0	1	2	3	4	5
No hurt	Hurts little bit	Hurts little more	Hurts even more	Hurts whole lot	Hurts worst

(Wong DL, Hockenberry-Eaton M, Wilson D, et al. *Whaley & Wong's Nursing Care of Infants and Children*. 6th ed. St Louis, MO: Mosby-Year Book, Inc; 1999)

11

Visual Analogue Scale (VAS)

No pain — Pain as bad as it could possibly be



(AHCPR 1994)

12

Pain Scales

- In a study of 129 subjects with MMSE<11 (mean age 84 y.o.)…
- > a third of these severely demented individuals couldn't comprehend the verbal, horizontal visual, or faces scale

Pautex S, Michon A, Guedina M et al. Pain in Severe Dementia: Self-Assessment or Observational Scales. J Am Geriatr Soc. 2006; 54: 1040-5.

13

Modified Functional Pain Scale

- **0 No Pain**
- **2 Tolerable (Doesn't interfere with activities)**
- **4 Tolerable (Interferes with some activities)**
- **6 Intolerable (Able to use phone, TV, or read)**
- **8 Intolerable (Unable to use phone, TV, or read)**
- **10 Intolerable (Unable to verbally communicate)**

Gloth et al. J Am Med Dir Assoc. 2001; 2(3): 110-114.

14

The Functional Pain Scale

Scale	Relative Efficiency	Standardized Response Means	Effect Size	p-value	Paired t-test	Rank (Resp. Index)
FPS	1.00	0.29	0.29	0.0054	2.85	1(7)
VAS	0.32	0.46	0.47	0.04	2.14	2(12)
PPI	0.36	0.25	0.25	0.02	2.21	3(13)
MPQ	0.30	0.22	0.21	0.037	2.11	4(19)
VNS	0.18	0.25	0.22	0.067	1.87	5(24)

Legend: FPS = Functional Pain Scale; VAS = Visual Analog Scale; PPI = Present Pain Intensity; MPQ = McGill Pain Questionnaire-Short Form; VNS = Visual Numerical Pain Scale.

Gloth FM III, Scheve AA, Stober CV, Chow S, Prosser J. The Functional Pain Scale: reliability, validity, and responsiveness in an elderly population. *J Am Med Dir Assoc*. 2001;2(3):110-114.

15

Assessing Analgesia in Patients with Limited Ability to Communicate

- **Behavioral observation is necessary to make a judgment about pain intensity**
  - **Facial expressions**
  - **Movement patterns**
    - **bracing, guarding, distorted postures, avoidance of activity**
  - **Nonverbal sounds**
    - **moans, cries, respiratory pattern**
  - **Reports of significant others**
    - **partner, spouse, child**

Hadjistavropoulos T, von Baeyer C, Craig KD. Pain assessment in persons with limited ability to communicate. In: Turk DC, Melzack R, eds. *Handbook of Pain Assessment*. 2nd ed. NY, NY: Guilford; 2001:134-152.

16

Caregiver Assessment

"One last thing, Doc. My wife wants you to look at the rash she's been treating on my back!"

17

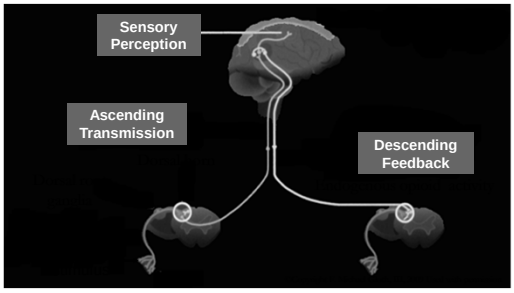
Pain

- Nociception (A-delta vs C fibers, opioid receptors)
- Psychological (Secondary Gain, Depression, Mental Focus, Prior Experience, & Anxiety)

18

19

The Pain Pathway



20

Opioid, NMDA, & GABA Receptors

- **μ – analgesia, miosis, respiratory depression, and euphoria**
- **κ – analgesia, miosis, sedation, and psychotomimetic activity**
- **δ – analgesia, miosis, and hypotension**
- **N-methyl-D-aspartate (NMDA)**
- **Gamma aminobutyric acid (GABA)**

21

HUMOR INFUSION

©*Close to Home*. John MacPherson. By Universal Press Syndicate. 1997.

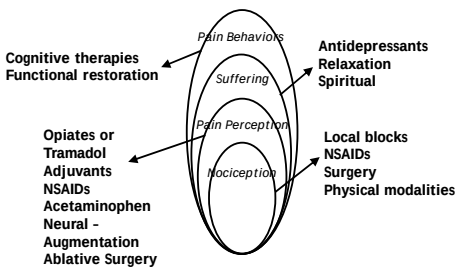
22

Pain Management

- Nonpharmacological
  - Cold, Heat, PT/OT, Exercise
  - TENS, Acupuncture
  - Radiation
  - Blocks, Relaxation, Hypnotism, Biofeedback, Massage, Vibration, Magnets…

23

Comprehensive Approach to Treatment
Chronic Non-Malignant Pain



Wiech K, Farias M, Kahane G, Shackel N, Tiede W, Tracey I. An fMRI study measuring analgesia enhanced by religion as a belief system. *Pain*. 2008;139(2):467-476. Epub 2008 Sep 5.

24

25

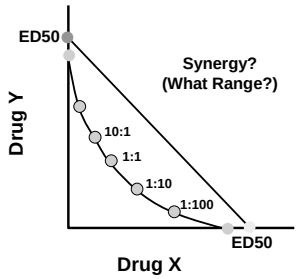
Bupivacaine as pre-emptive analgesia in third molar surgery: Randomised controlled trial

- **45 patients who had bilateral impacted third molars removed**
- **Bupivacaine was injected on one side, the other side acting as control**
- **VAS**
- **Significant reduction (p = 0.05) in postoperative pain on the injected side at 6, 12, and 72 h and an overall reduction in pain up to 7 days**

M. Sharif Nayyara and C. Yates. British Journal of Oral and Maxillofacial Surgery Volume 44, Issue 6, December 2006, Pages 501-503

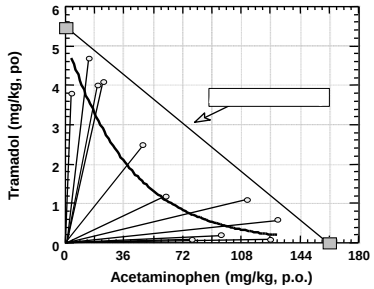
26

Isobolographic Analysis



27

Tramadol + Acetaminophen

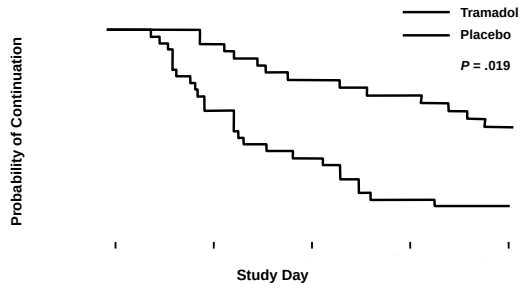


Tallarida RJ, Raffa RB. *Life Sci.* 1996;58:PL23-28.

28

Tramadol/Acetaminophen as COX-2 Add-On Therapy

Probability of Continuation



Emkey R, et al. *J Rheumatol.* 2004;31(1):150–156.

29

Vitamin D Deficiency & Pain

- **Osteomalacia (Deep musculoskeletal pain)**
- **Vitamin D Deficiency Pain Syndrome (Pain with superficial light pressure, pressure sores painful)**
- **Fractures**

Gloth et al. Arch Intern Med. 1991; 151: 1662-1664.

30

Metastatic Bone Pain Management

- **Non Opioids**
  - **NSAID's COX-2**
  - **Bisphosphonates (pamidronate, zoledronic acid, alendronate, risedronate, ibandronate)**
  - **Radionuclides (strontium 89, samarium 153)**

Gloth III FM. The use of a bisphosphonate (etidronate) to improve metastatic bone pain in three hospice patients. Clin J Pain. 1995; 11: 333-5.

31

Other agents (may augment opioid response, especially, in neuropathy)

- **Gabapentin and Pregabalin in neuropathic pain (such pain rarely responds adequately to opioids alone)**
  - **an FDA indication for post-herpetic neuralgia.**
- **Immunize against pain V-Z vaccine**
- **Duloxetine and some Tricyclic Antidepressants**
  - **addressing both neuropathic pain and depression, which commonly accompanies chronic pain**

Cunningham AL, Lal H, Kovac M, et al, for the ZOE-70 Study Group. Efficacy of the herpes zoster subunit vaccine in adults 70 years of age or older. *N Engl J Med.* 2016;375(11):1019-1032.
Lal H, Cunningham AL, Godeaux O, et al, for the ZOE-50 Study Group. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. *N Engl J Med.* 2015;372(22):2087-2096

32

Patient Assisted Intervention for Neuropathy: Comparison of Treatment in Real Life Situations (PAIN-CONTRoLS)Bayesian Adaptive Comparative Effectiveness Randomized Trial

"Conclusions and Relevance: … nortriptyline and duloxetine outperformed pregabalin and mexiletine when pain reduction and undesirable adverse effects are combined to a single end point."

33

Duloxetine for Chronic Pain in OA

- **Two 13-week placebo-controlled RCTs demonstrated significant efficacy for pain, physical function and patient global assessment of improvement**
- **Could be used either alone or as adjunctive therapy in patients taking oral NSAIDs and/or opioid analgesics**
- **No new safety signals in OA patients**
- **FDA approved for indication of chronic musculoskeletal pain**

Chappell AS et al: Pain 2009;146:253-60 and Pain Pract 2011;11:33-41.

34

Opioids

- **Short-acting**
  - **Morphine**
  - **Codeine**
  - **Hydrocodone**
  - **Oxycodone**
  - **Hydromorphone**
  - **Oxymorphone**
  - **Fentanyl**

C ➞ M

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Pain Management

- Opioids
  - Morphine CR
  - Oxycodone CR
  - Oxymorphone CR
  - Hydrocodone CR
  - Hydromorphone CR
  - Fentanyl
  - Buprenorphine
  - Tapentadol ER

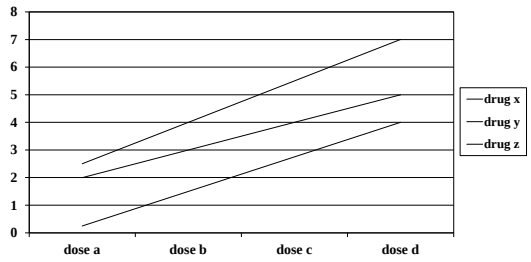
36

Opioids - Fentanyl Patch

- **18-hour reservoir**
- **12-hour delay in onset with new patch**
- **Increased absorption with fever (heat)**
- **Deaths in opioid-naïve patients**

37

Equianalgesic Conversions



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Changing Role of Opiate Analgesics

- **Controversial in the management of chronic non–cancer pain (CNCP)**
- **Reluctance among practitioners**
- **In the last decade, the APS, AAPM and AGS advocated for more and better use of opiate analgesics in the management of CNCP**
- **Pain as the "fifth vital sign" raised awareness and increased utilization**
- **About 20 years ago the public felt that physicians were not adequately treating pain with narcotics. *Malpractice suits were filed and won for under treatment resulting in a $15 million verdict in 1991 (James cases, North Carolina) and $1.5 million in the Chin case (1998, California)***

39

Under treatment was the theme

- **A joint statement from 21 health care organizations and the Drug Enforcement Agency, October 23, 2001**
- ***"Under-treatment of pain is a serious problem in the United States, including pain among patients with chronic conditions and those who are critically ill or near death"***
- ***"Effective pain management is an integral and important aspect of quality medical care, and pain should be treated aggressively"***
- ***"For many patients, opiate analgesics, when used as recommended by established pain management guidelines, are the most effective way to treat their pain, and often the only treatment option that provides significant relief."***

40

FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES, INC.

Model Guidelines for the Use of Controlled Substances for the Treatment of Pain

- **Evaluation of the Patient**
- **Treatment Plan**
- **Informed Consent and Agreement for Treatment**
- **Periodic Review**
- **Consultation**
- **Medical Records**
- **Compliance with Controlled Substances Laws and Regulations**

FSMB. Model Policy for the Use of Controlled Substances for the Treatment of Pain. J Med Licensure Discipline. 2005. 91:31-5; www.fsmb.org

41

Things have Changed

- **A spike in opiate prescriptions and overdose deaths has lead to public outcry and government intervention.**
- **Western Virgina Oxycontin deaths**
- **State Level: "Pill Mills" in south Florida resulted in 2012 Florida Statute 456.44 on Controlled Substance Prescribing**
- **Federal Level: CDC Guidelines for opiate prescribing for Chronic Pain**

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2012 Florida Legal Requirements for Controlled Substance Prescribing

- **Physician must designate themselves as a controlled substance practitioner and**
- **Have written treatment plan and**
- **Have written controlled substance agreement and**
- **See patient at least once every three months and**
- **Meet strict medical record documentation and**
- **Refer patients with signs of substance abuse to pain management**

https://www.mpp.org/states/florida/

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Risk Factors for Opioid-Related Aberrant Behaviors

- **Family history of substance abuse**
  - **Alcohol, illegal drugs, prescription drugs**
    - **- Prescription drug abuse history carries greater risk**
- **Personal history of substance abuse**
  - **Alcohol, illegal drugs, prescription drugs**
    - **- Prescription drug abuse history carries greater risk**
- **Age 16 to 45 years**
- **History of preadolescent sexual abuse**
  - **Increases risk for women**
- **Psychological disease**
  - **Attention deficit disorder (ADD) or depression**
    - **- ADD carries higher risk**

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Opioids in Persistent Pain Recommendations

- **X. Clinicians should anticipate, assess for, and identify potential opioid-associated <u>adverse effects</u>.**

(moderate quality of evidence, strong recommendation)

- Tolerance develops to many symptoms within days
- Constipation still requires:
  - *peripheral opioid antagonists (methylnaltrexone, naloxegol, naldemadine, alvimopan)*
  - hydration
  - bulk fiber (only if hydration can be maintained)
  - activity
  - senna (others tegaserod, lubiprostone, linaclotide)
  - polyethylene glycol, sorbitol (20cc 70% BID < 3 d's).

Thomas J, Karver S, Cooney GA, et al. Methylnaltrexone for opioid-induced constipation in advanced illness. *N Engl J Med. 2008;358:2332-2343. See also N Engl J Med 2014;370:2387-96.*

45

Opioids for Neuralgia

Treatment of post-herpetic neuralgia

1. Opioids perform as well as tricyclic antidepressants (TCA) for pain relief
2. Opioids and TCA significantly better than placebo (Avoid Amitriptyline and Imipramine in seniors) :
   - 38% opioid and 32% TCA vs. 11% placebo; p< 0.001
3. Patient preference was for opioids:
   - 54% opioids vs 30% TCA; p=0.02

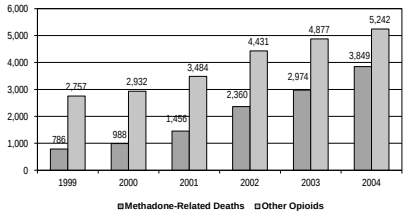
Raja S N; Haythornthwaite J A; Pappagallo M; Clark M R; Travison T G; Sabeen S; Royall R M; Max M. Opioids versus antidepressants in postherpetic neuralgia: a randomized, placebo-controlled trial.Neurology 2002;59(7):1015-21

46

Opioids in Persistent Pain Recommendations (cont'd)

- **XIII. Methadone should be initiated and titrated cautiously only by clinicians well versed in its use and risks. (moderate quality of evidence, strong recommendation)**

Methadone and Other Opioid Deaths, 1999-2004



National Drug Intelligence Center. Methadone Diversion, Abuse, and Misuse: Deaths Increasing at Alarming Rate. November 16, 2007.

Source: National Center for Health Statistics.

47

FSMB: Breaches

- **Inadequate attention to initial assessment**
- **Inadequate monitoring**
- **Inadequate attention to patient education and informed consent**
- **Unjustified dose escalation without adequate attention to risks or alternative treatments:**
- **Not making use of available tools for risk mitigations**

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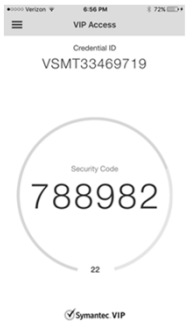
Electronic prescribing



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DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

- **Opioids are not first-line or routine therapy for chronic pain**
- **Establish and measure goals for pain and function**
- **Discuss benefits and risks and availability of nonopioid therapies with patient**

www.cdc.gov/drugoverdose/prescribing/guideline.html

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OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

- **Use immediate-release opioids when starting**
- **Start low and go slow**
- **When opioids are needed for acute pain, prescribe no more than needed**
- **Do not prescribe ER/LA opioids for acute pain**
- **Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed**

www.cdc.gov/drugoverdose/prescribing/guideline.html

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ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE

- Evaluate risk factors for opioid-related harms
- Check PDMP for high dosages and prescriptions from other providers
- Use urine drug testing to identify prescribed substances and undisclosed use
- Avoid concurrent benzodiazepine and opioid prescribing
- Arrange treatment for opioid use disorder if needed

www.cdc.gov/drugoverdose/prescribing/guideline.html

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Tapering and D/C'ing ER/LA Opioids

- Titrate downward to prevent signs and symptoms of withdrawal in the physically dependent patient
  - Do not abruptly discontinue these products
    - Decrease original dose by 10% per week
- Abrupt discontinuation of chronic opioids may cause withdrawal characterized by:
  - Stomach cramps, diarrhea, rhinorrhea, sweating, elevated heart rate, increased blood pressure, irritability, dysphoria, hyperalgesia, and insomnia

www.cdc.gov/drugoverdose/prescribing/guideline.html

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CDC Guidelines

- The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.
- Non pharmacologic and non opioid pharmacologic therapy are preferred for chronic pain.
- Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients
- Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

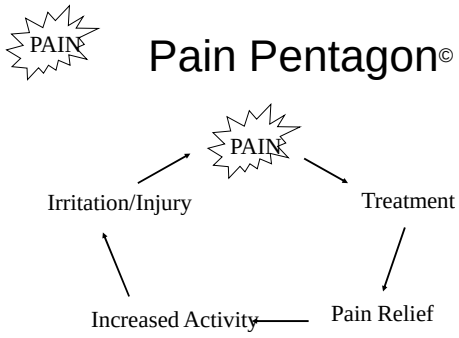
54

Interventional Techniques

- **Proliferative Therapies**
  - **Nerve Blocks**
  - **Facet Denervation**
  - **Intrathecal Pumps**
  - **Dorsal Cord Stimulation**

55

Pain Pentagon©



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Summary

- **FPS to help assess pain in seniors**
- **Pre-emptive Analgesia**
- **Synergy**
- **Prevent pain with CR opioids or vaccine**
- **Pain Pentagon**

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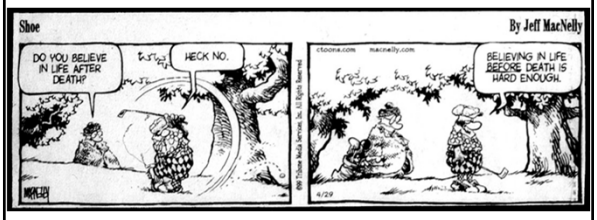

©*Shoe*. Jeff MacNelly. Tribune Media Services, Inc. 1999.

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©*Hagar the Horrible*. Dik Browne.

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FMDA 31rs Annual Conference and Trade Show
Best Practices in the Post-Acute and Long-term Care Continuum

Best Practices in Pain Management in PALTC

F. Michael Gloth, III, MD, FACP, AGSF

Clinical Professor
Department of Geriatrics, Florida State University College of Medicine

Associate Professor of Medicine
Johns Hopkins University School of Medicine

President and CEO, AMDG Naples 100 Senior Concierge and Consulting, LLC

60

References

- **Evidence-Based**
  - **Quigley C. Hydromorphone for acute and chronic pain, Cochrane Library, Issue 2, 2003.**
  - **McQuay HJ, et al. Radiotherapy for the palliation of painful bone metastases. Cochrane Library, Issue 2, 2003.**
  - **Mailis A, Furlan A, Sympathectomy for neuropathic pain, Cochrane Library, Issue 2, 2003.**
- **Recommended Reading**
  - **World Health Organization, Cancer pain relief, 2nd Ed., Geneva, 1996.**
  - **Abrahm JL, A Physicians Guide to Pain and Symptom Management in Cancer Patients, J. Hopkins University Press, Baltimore, 2000.**

61

References

- **AAFP Lecture, Management of Chronic Pain, by Gary I. Levine, MD, FAAFP**
- **Florida Marijuana Policy Project**
- **https://www.mpp.org/states/florida/**
- **Images courtesy of Bing image search**

62

Federal Regulations

21 CFR 1306.07

- **May treat acute / chronic pain with a Schedule II narcotic in a recovering narcotic – addicted patient**
- **Federal law or regulations do not restrict the prescribing, dispensing or administering of a narcotic medication to a narcotic–addicted patient for the purpose of alleviating pain, if such prescribing is medical appropriate within standards set by the medical community.**
- **One must keep good records to document the physician is treating a pain syndrome, not the disease of narcotic addiction.**

63

More from the CDC

- When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids
- When opioids are started, clinicians should prescribe the lowest effective dosage.
- Long-term opioid use often begins with treatment of acute pain.
- Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain

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And More

- Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms.
- Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose

65

Yet More

- When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
- Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible
- Clinicians should offer or arrange evidence-based treatment (usually medication assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder

66

Marijuana

- Amendment 2 in 2016 vote, signed by Gov. Rick Scott into law in June 2017
- Working on decriminalization from the Federal level (due to Florida Statute 893.13)
- Studies done that show
  - Evidence for clinical benefit in HIV neuropathic pain
  - MS patients report less spasticity

67

Marijuana continued

- Three forms available: oils, pills, Vape pen
- No reversal available for overdose (overdose can include psychosis and anxiety symptoms), however no documented deaths from overdose.
- HUGE patient financial burden as no banks allowed to be involved in transactions (due to Federal illegal status). It is a cash only business.

68

Marijuana Prescribing

- Prescribing and dispensing are NOT the same thing
- Prescribers must complete training course
- Patient must register on the Office of Compassionate Use website (managed by Moffitt Cancer Center), provide passport photos and receive a treatment card

69

Indications for Marijuana

- **Qualifying Disease States**
  - **Cancer, HIV/AIDS, Seizure Disorders, Sleep Disorders, Anorexia, Crohn's Disease, Parkinson's, Multiple Sclerosis, PTSD, ALS**
  - **Medical conditions of the same kind or class/comparable to those listed above**
  - **Any Terminal Condition**

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Legal Update 2019

- **In 2019, Governor Ron DeSantis signed Senate Bill 182 which repealed the previous ban on smokable medical marijuana. According to Florida's Office of Medical Marijuana Use:**
- **"The qualified physician must determine that smoking is an appropriate route of administration for medical marijuana and have the patient sign an updated consent form before placing an order for medical marijuana in a form for smoking for the patient in the Medical Marijuana Use Registry."**
- **Medical cannabis patients are now permitted to receive up to 2.5 ounces of whole flower cannabis every 35 days. They may not possess more than 4 ounces at any given time. Patients under the age of 18 must have a terminal disease and receive the additional approval of a pediatrician to receive smokable cannabis**

71

Take Home Message on Marijuana

- **DOH Handout for patients**
  - **http://www.floridahealth.gov/programs-and-services/office-of-medical-marijuana-use/patients/_documents/ommu-patient.pdf**
- **May be a much better alternative to Opioids**
- **Expensive**
- **Lots of hurdles to jump through**
- **RECREATIONAL Marijuana still illegal**
- **RAPIDLY CHANGING LANDSCAPE HERE IN FLORIDA**

72

Other Reasons…

- **<1% of the thousands of papers published on pain focus on the aging society**
- **Lack of time in the nursing home for assessment and treatment of pain**
- **Fear of being labeled a complainer**
- **Belief that pain is a normal part of aging**

Ferrell BA. Ann Intern Med. 1995; 123:681-7
Weiner DK et al. J Am Geriatr Soc. 2002; 50: 2035-40.

73

Pain Management Costs

- Always consider cost!
  - Individual Costs and Ability to Pay
  - Societal Costs
  - Cheaper per Pill may NOT be less costly
    - If pill is more expensive, but it prevents serious complications associated with ADR's, then overall health care costs may be reduced.

74

Get Smart about Diabetes in the Geriatric Patient

David LeVine, M.D. (AKA : Control Agent 125)

American Diabetes Association, *Diabetes Care*. 2022;45(Suppl 1)

AMDA's Diabetic Management in the Post-Acute and Long-Term Care Setting Clinical Practice Guidelines 2015

Management of Diabetes in Long-term Care and Skilled Nursing Facilities: A Position Statement of the American Diabetes Association 2016

1

DISCLOSURE STATEMENT

The CME committee, speakers, and planners do not have any financial arrangements or affiliations with any corporate organizations whose products, research, or services will be mentioned in the presentation

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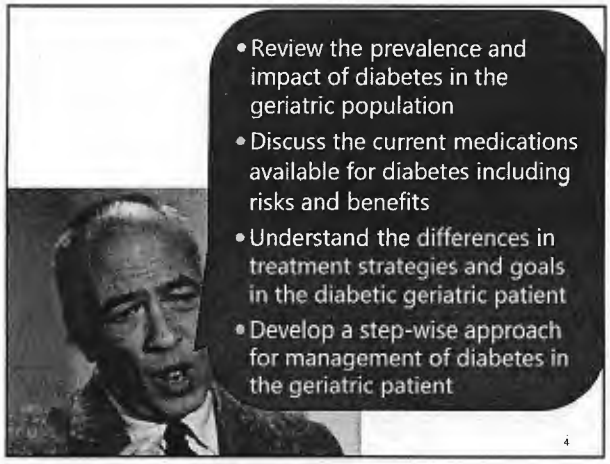
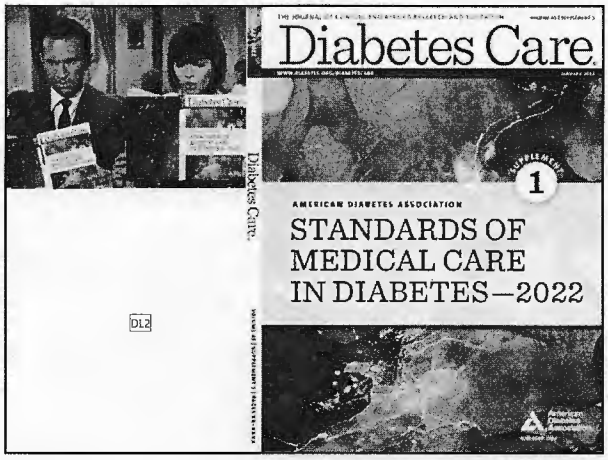

• Review the prevalence and impact of diabetes in the geriatric population
• Discuss the current medications available for diabetes including risks and benefits
• Understand the differences in treatment strategies and goals in the diabetic geriatric patient
• Develop a step-wise approach for management of diabetes in the geriatric patient
4

4


Diabetes Care
1
AMERICAN DIABETES ASSOCIATION
STANDARDS OF MEDICAL CARE IN DIABETES—2022
DL2

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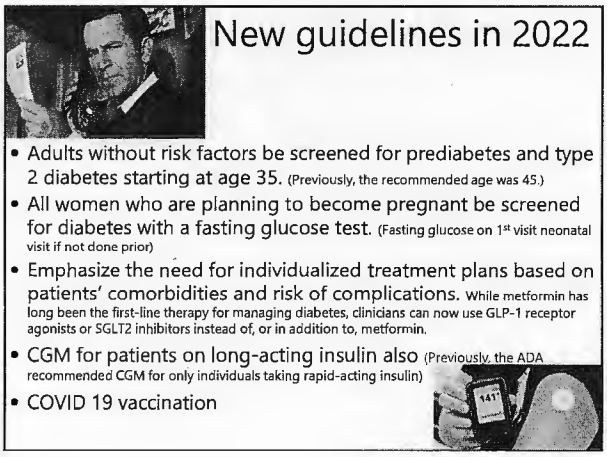
New guidelines in 2022
• Adults without risk factors be screened for prediabetes and type 2 diabetes starting at age 35. (Previously, the recommended age was 45.)
• All women who are planning to become pregnant be screened for diabetes with a fasting glucose test. (Fasting glucose on 1st visit neonatal visit if not done prior)
• Emphasize the need for individualized treatment plans based on patients' comorbidities and risk of complications. While metformin has long been the first-line therapy for managing diabetes, clinicians can now use GLP-1 receptor agonists or SGLT2 inhibitors instead of, or in addition to, metformin.
• CGM for patients on long-acting insulin also (Previously, the ADA recommended CGM for only individuals taking rapid-acting insulin)
• COVID 19 vaccination

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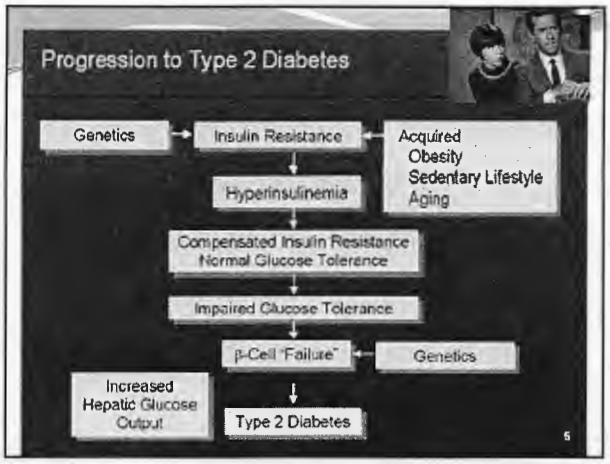
Slide 5

DL2 David LeVine, 5/2/2022


Progression to Type 2 Diabetes
Genetics
Insulin Resistance
Acquired
Obesity
Sedentary Lifestyle
Aging
Hyperinsulinemia
Compensated Insulin Resistance
Normal Glucose Tolerance
Impaired Glucose Tolerance
β-Cell "Failure"
Genetics
Increased
Hepatic Glucose
Output
Type 2 Diabetes
5

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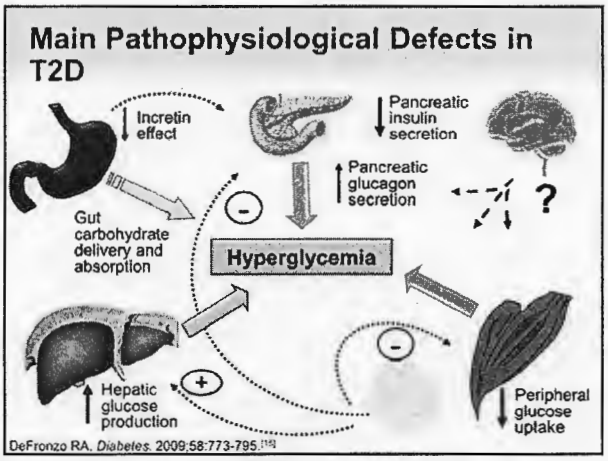
Main Pathophysiological Defects in T2D
Incretin effect
Pancreatic insulin secretion
Pancreatic glucagon secretion
?
Gut carbohydrate delivery and absorption
Hyperglycemia
Hepatic glucose production
Peripheral glucose uptake
DeFronzo RA. Diabetes. 2009;58:773-795.[19]

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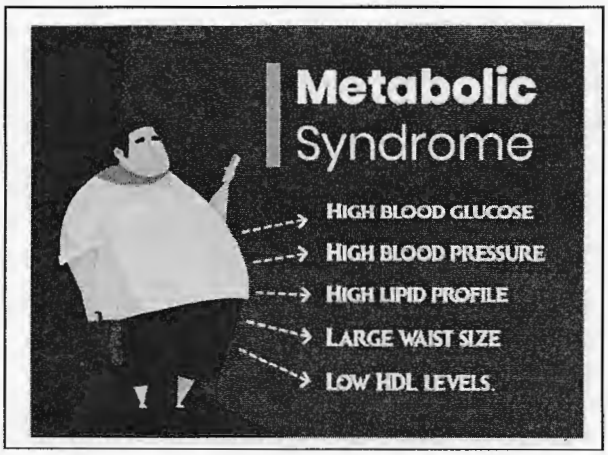
Metabolic
Syndrome
HIGH BLOOD GLUCOSE
HIGH BLOOD PRESSURE
HIGH LIPID PROFILE
LARGE WAIST SIZE
LOW HDL LEVELS.

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Criteria for the Harmonized Definition of Metabolic Syndrome[1]

Risk Factor	Level That Meets Criteria
Blood pressure*	Systolic ≥130 mm Hg or diastolic ≥85 mm Hg
Fasting plasma glucose*	>100 mg/dL
Serum triglycerides*	≥150 mg/dL
HDL cholesterol*	Men <40 mg/dL Women <50 mg/dL
Waist circumference	Population-specific thresholds recommended In the United States* • For people of most ancestries Men ≥40 inches (≥102 cm) Women ≥35 inches (≥88 cm) • For people of Asian ancestry** Men ≥35 inches (≥90 cm) Women ≥31.5 inches (≥80 cm)

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Metabolic syndrome

- **Metabolic syndrome** is a combination of medical disorders that increase the risk of developing cardiovascular disease and diabetes.
- It affects one in 4 people and its prevalence increases with age.
- Metabolic syndrome AKA **dysmetabolic syndrome**, **metabolic syndrome X**, **cardiometabolic syndrome**, **syndrome X**, **insulin resistance syndrome**, **Reaven's syndrome** (named for Gerald Reaven), and **CHAOS** (in Australia).

CHAOS

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CHAOS

C – Coronary Artery Disease
H – Hypertension/Hyperlipidemia
A - Adult Onset Diabetes
O – Obesity
S - Stroke

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Why Get Smart?

- Goal is CONTROL
- Normal Fasting Blood Glucose is 99
- Metabolic syndrome a.k.a. CHAOS
- It was one of all time favorite TV shows

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Risk Factors

- **Older (>=45y.o.)**
- **Less active**
- **Overweight BMI>=25**
- FHx of diabetes in 1st degree relative
- Being of African, Asian, Native American, Hispanic, or Pacific Islander ancestry
- High blood pressure >=140/90
- High blood levels of triglycerides with low HDL
- History of cardiovascular disease
- Hx of pre-diabetes, metabolic syndrome (CHAOS), impaired glucose tolerance (A1C>5.6 or FBS>99)
- In women, a history of giving birth to large babies (over 9 lbs) and/or diabetes during pregnancy

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ADA 2022 Guidelines (in the absence of unequivocal hyperglycemia repeat testing is recommended)

- Hgb A1C >=6.5% (prediabetes 5.7-6.4%)
- Fasting plasma glucose >=126 mg/dl (no calories for >=8 hours) (prediabetes 100-125)
- 2-hour plasma glucose >=200 mg/dl following a 75-g oral glucose tolerance test (prediabetes 140-199)
- A random plasma glucose of >=200mg/dl in a patient with classic symptoms of hyperglycemia

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HgbA1C vs. FPG

- 1865 community dwelling older patients (70-79y.o.) without diabetes
- 80 (4.3%) met new criterion for diabetes
- Approximately 1/3 had elevated HgbA1c, 1/3 had elevated FPG and 1/3 had both
- 32% met prediabetes criterion with same ratios

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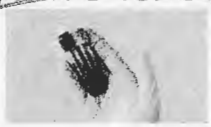
HgbA1C vs. OGTT



- Researchers looked at data from 9,000 adults, ages 20 years and older, from the 2005-2014 National Health and Nutrition Examination Survey (NHANES).
- Based on the fasting blood glucose test and the OGTT, 765 patients were diagnosed as having type 2 diabetes (T2D). However, only about 27% of these individuals were classified as having diabetes based on their A1c levels. 73 % of patients would miss out on early intervention and treatment
- The guidelines for diagnosis and treatment of type 2 diabetes from the American Diabetes Association (ADA) already advise against relying solely on A1c although guidelines specify that diabetes can be diagnosed based on fasting plasma glucose (FPG), the OGTT, or the A1c,
- HgbA1c remains the least reliable method for assessing diabetes risk.

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Prevalence of diabetes in the elderly

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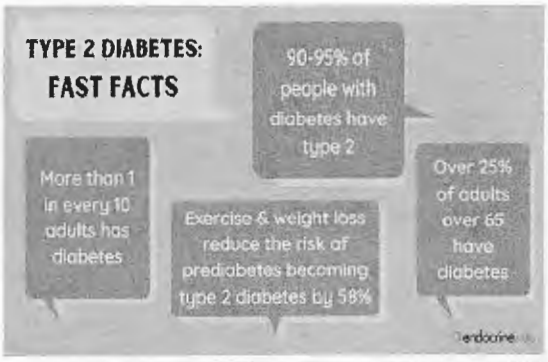
Prevalence of Diabetes



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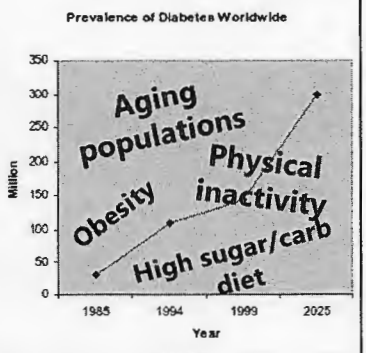
•Prevalence of Diabetes in 2022

Diabetes is increasing at an alarming rate in the USA.

- According to the CDC's National Diabetes Statistics Report for 2022, cases of diabetes have risen to an estimated 37.3 million (11.3%).
- 23% of those U.S. adults with diabetes are undiagnosed.
- An estimated 96 million adults have prediabetes, (38% of the U.S. adult population)
- >8 in 10 adults don't know they have prediabetes
- The percentage of adults with diabetes increased with age, reaching over 26% among those aged 65 years or older
- 26.4 million people aged 65 years or older have prediabetes (48.8%)



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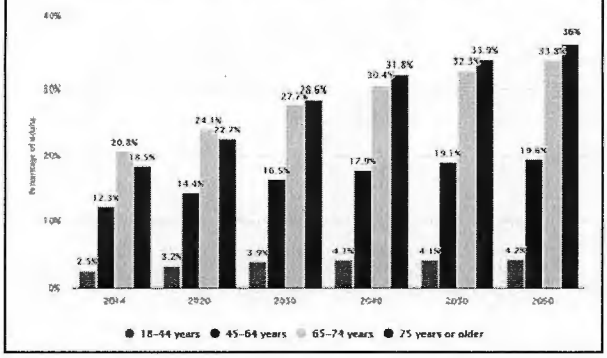
Projected prevalence of diagnosed diabetes in adults in the U.S. for selected years from 2014 to 2060, by age group



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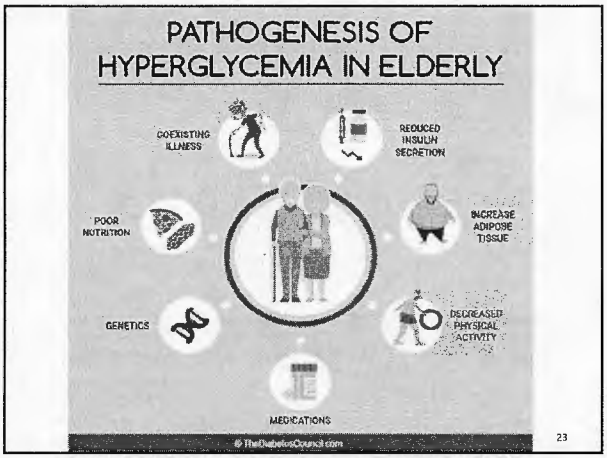

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Diabetic statistics in the elderly

- In diabetics, 45-74 years of age, diabetes alone was responsible for 43.3% of hospitalizations and 52.1% of nursing home admissions
- Diabetics accounts for 32% of Medicare expenses
- Diabetes is an independent predictor of nursing home placement
- Diabetics in nursing homes have greater co-morbidities especially with cardiovascular issues, depression, and pain and have greater lengths of stay (i.e. > 90 days)

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Diabetic statistics in the elderly

- Heart attacks and strokes are 2-4x as frequent in patients with diabetes
- Diabetic nephropathy is the #1 cause of end stage renal failure
- Diabetic retinopathy is one of the leading causes of blindness. DM increases risk of glaucoma 38-40%.
- Increased insulin resistance and diabetes significantly increases risk of cognitive impairment and depression
- Risks of falls, polypharmacy, urinary incontinence, and pain are increased
- Peripheral artery disease and peripheral nephropathy are major risk factors for non-traumatic limb amputations

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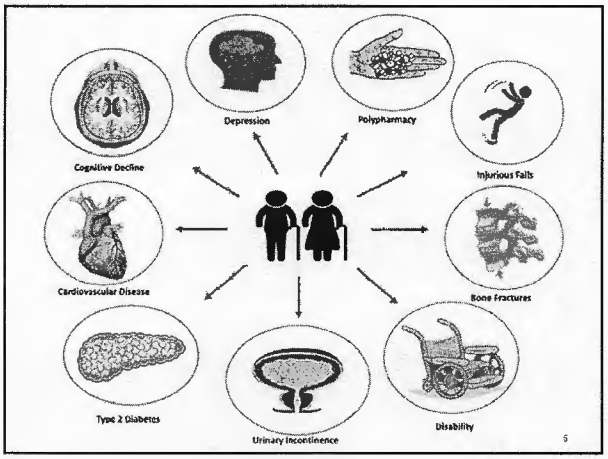

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Diabetes is the seventh leading cause of death in the United States

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Oral Diabetic Medications

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Biguanides

metformin

CONTROL

- 1st line therapy!
- No known drug interactions
- Decreases hepatic glucose output
- Decreases insulin resistance
- Increases muscle glucose uptake
- Decreases GI sugar absorption
- Lowers HgbA1C 1.5-2.0%
- Reduces LDL and TG
- Rare hypoglycemia
- Raises GLP levels (glucagon-like peptide)
- Inexpensive
- Weight neutral
- Useful for polycystic ovary synd.

KAOS

- Lactic acidosis although rare (approx 0.03 cases/1000 pt-yrs) is fatal 50% of the times. Higher in diabetics with renal impairment especially if:
  - >80 years old (Monitor GFR!)
  - Acute/unstable CHF
  - Hepatic disease/EtOHism
  - Sepsis /hypoxemia
  - Dehydration
- GI s.e. (diarrhea, nausea, vomiting, indigestion, flatulence)

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Metformin

NEJM June 2016

Meta-anaylsis of 204 studies

- Still 1st line therapy in DM2
- Begin metformin at the time of diagnosis w lifestyle changes
- Weight stable or decreased
  - Stable: DDP inh, GLP-1 ag, SGLT-2 inh
  - Increased: sulfonylureas, TZDs, insulin
- Combinations therapy:
  - Lowers A1c similarly except:
  - Met+GLP-1 agonist superior to Met+DPP-4 inhibitors
- As mono tx, low long-term (>2yrs) CV mortality vs sulfonylureas (33-43% increased mortality risk with sulfonylureas than with metformin)
- Low hypoglycemia (sulfonylureas with highest risk of hypoglycemia)
- Metformin was not associated with excessive risk for lactic acidosis

Recently modified FDA restrictions with renal impairment: contraindicated only if GFR <30 and caution if GFR is 30-45

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Metformin

Metformin therapy for prevention of type 2 diabetes should be considered in adults with prediabetes, as typified by the Diabetes Prevention Program, especially those aged 25–59 years with BMI ≥35 kg/m², higher fasting plasma glucose (e.g., ≥110 mg/dL), and higher A1C (e.g., ≥6.0%), and in women with prior gestational diabetes me

LEVEL OF EVIDENCE: **A**

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Sulfonylureas

2nd generation
glipizide (Glucotrol)
glimepiride (Amaryl)

CONTROL

- >50 years experience
- Inexpensive
- Reduces fasting glucose
- Decreases A1C by 1.5-2.0%

UK Diabetic Cohort Analysis December 4, 2009 stated that sulfonylureas as a drug class were associated with an excess all-cause mortality risk compared to metformin in retrospective analysis of >90,000 diabetic patients

KAOS

- High risk of hypoglycemia
- Weight gain
- Elevated LFTs/Hepatitis
- Cholestatic jaundice
- Photosensitivity/Rash
- Pancytopenia

Anemia
Leukopenia
Thrombocytopenia

- Hyponatremia/SIADH
- May cause prolonged coronary ischemia in MI and angina patients by interfering with K channels
- Avoid glyburide (Diabeta,Glynase,Micronase,Glycron)

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1st generation sulfonyureas should not be used in the management of diabetes

REPRESENTATIVE TRADE NAMES
Acetohexamide – Dymelor®
Chlorpropamide – Diabinese®
Tolazamide – Tolinase®
Tolbutamide – Orinase®

An earlier Cochrane review found a statistically significant increase in the risk of cardiovascular death for first generation sulfonylureas relative to placebo(RR 2.63, 95% CI 1.32 to 5.22;P=0.006).

The FDA requires sulfonylureas to carry a label warning regarding increased risk of cardiovascular death.

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Meglitinenides

Nateglinide (Starlix), repaglinide (Prandin)

CONTROL	KAOS
• For patients with Hgb A1C < 8	• Limited with Hgb A1C>8
• Decreases A1C by 0.5-1.0%	• Taken 3-4x daily <=30 minutes before meals
Diabetes 12/2004 v.53 "...inhibition of cardiovascular K ATP channels by insulin secretagogues (sulfonyureas and meglitinides) is considered to increase cardiovascular risk	• Hypoglycemia • Myocardial ischemia • Weight gain • GI s.e.(diarrhea, nausea, vomiting, constipation, pancreatitis) • Not indicated with NPH due to increased CV events

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Alpha-glucosidase inhibitors

(acarbose-Precose, miglitol-Glyset)

CONTROL	KAOS
• Reduces post-prandial glucose absorption	• 3 times a day
• Lowers HgbA1C .5-.8%	• ½ regular dose in elderly
• No risk of hypoglycemia	• 30% experience GI side effects
• No effect on weight gain	Abdominal discomfort
• No serious adverse effects	Flatulence, bloating
	Diarrhea
	• Avoid in IBD, GI obstructon

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Thiazolidinediones (AKA: TZDs)

rosiglitazone(Avandia), pioglitazone(Actos)

CONTROL	KAOS
• Decreases insulin resistance	• Fluid retention and edema
• Decreases hepatic output	• CHF (contraindicated in NYHA Class III-IV CHF)
• Increases muscle uptake	• Clearance significantly lower in hepatic impairment (Avoid if LFTs >2.5x higher than normal)
• Lowers HgbA1C 1.5-2.0%	• Fracture risk in females?
• No dose reduction in elderly	• On 9/23/2010 restrictions placed on rosiglitazone in response to data that suggest an elevated risk of CV events such as heart attack and CVA
• No adjustments for CKD	
• Rare hypoglycemia (alone)	
• Lowers TG and increases HDL	
• Reduces hsCRP	
• May be taken without regard for meals	

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Dipeptyl peptidase-4 (DDP-IV) inhibitors (AKA Gliptins)

sitagliptin(Januvia), linagliptin(Tradjenta), saxagliptin(Onglyza), alogliptin(Nesina)

CONTROL

- Prolongs action of GLP-1 & GIP
- Works on both fasting and postprandial blood sugar
- Low risk of hypoglycemia (alone)
- Lowers HgbA1C 1%
- Restores 1st phase insulin response and increases pancreatic insulin output
- Slows glucose absorption from gut by slowing gastric emptying
- Causes early satiety/wt. neutral
- Decreases beta cell apoptosis

KAOS

- Expensive
- Pancreatitis, increased LFTs
- Stevens-Johnson syndrome
- Rash, urticaria, angioedema
- Headache(6.5% vs 5.9% with placebo)
- Monitor renal function periodically and adjust dose for CKD
- Hypoglycemia risk with sulfonylureas

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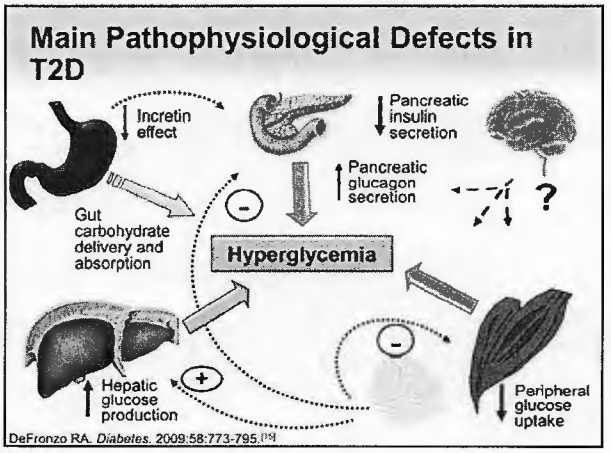

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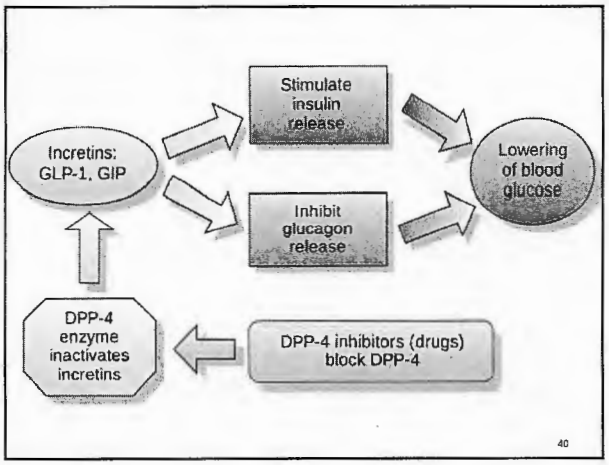
Incretins: GLP-1, GIP
Stimulate insulin release
Inhibit glucagon release
Lowering of blood glucose
DPP-4 enzyme inactivates incretins
DPP-4 inhibitors (drugs) block DPP-4
40

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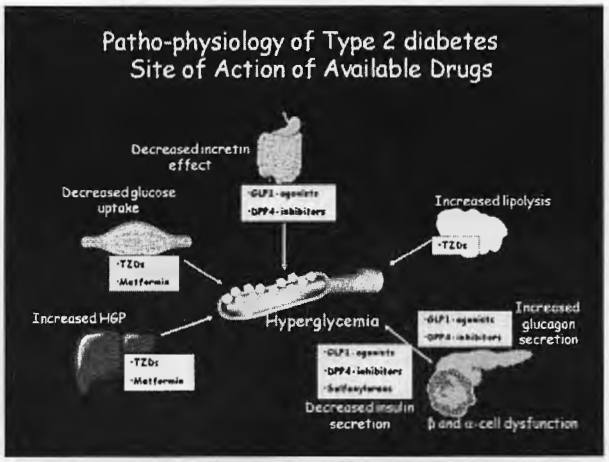
Patho-physiology of Type 2 diabetes
Site of Action of Available Drugs
Decreased incretin effect
Decreased glucose uptake
Increased lipolysis
Increased HGP
Hyperglycemia
Increased glucagon secretion
Decreased insulin secretion
β and α-cell dysfunction

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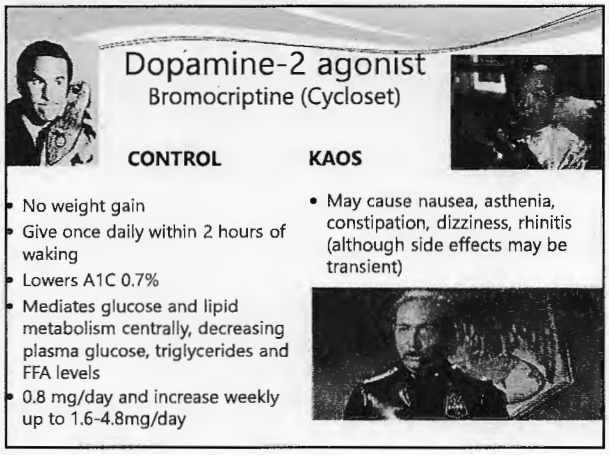
Dopamine-2 agonist
Bromocriptine (Cycloset)
CONTROL
KAOS
No weight gain
Give once daily within 2 hours of waking
Lowers A1C 0.7%
Mediates glucose and lipid metabolism centrally, decreasing plasma glucose, triglycerides and FFA levels
0.8 mg/day and increase weekly up to 1.6-4.8mg/day
May cause nausea, asthenia, constipation, dizziness, rhinitis (although side effects may be transient)

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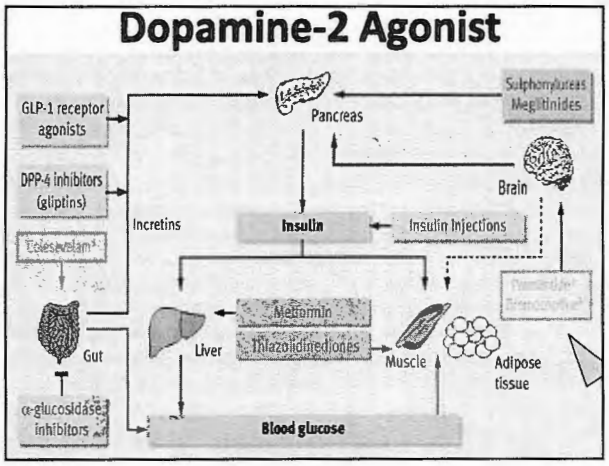
Dopamine-2 Agonist
GLP-1 receptor agonists
DPP-4 inhibitors (gliptins)
Colesevelam
Pancreas
Sulphonylureas
Meglitinides
Brain
Incretins
Insulin
Insulin Injections
Metformin
Thiazolidinediones
Gut
Liver
Muscle
Adipose tissue
α-glucosidase inhibitors
Blood glucose

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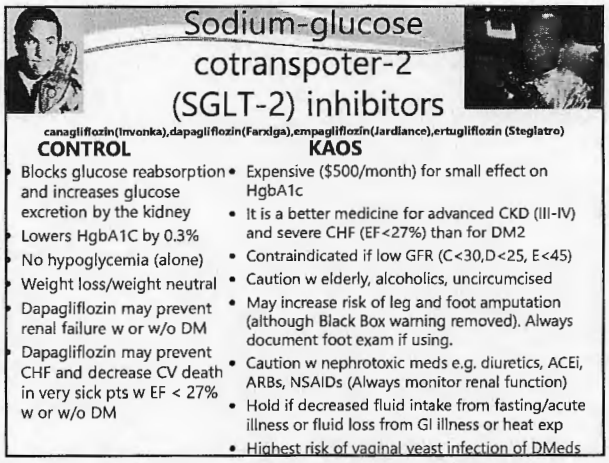
Sodium-glucose cotranspoter-2 (SGLT-2) inhibitors
canagliflozin(Invonka),dapagliflozin(Farxiga),empagliflozin(Jardiance),ertugliflozin (Steglatro)
CONTROL
Blocks glucose reabsorption and increases glucose excretion by the kidney
Lowers HgbA1C by 0.3%
No hypoglycemia (alone)
Weight loss/weight neutral
Dapagliflozin may prevent renal failure w or w/o DM
Dapagliflozin may prevent CHF and decrease CV death in very sick pts w EF < 27% w or w/o DM
KAOS
Expensive ($500/month) for small effect on HgbA1c
It is a better medicine for advanced CKD (III-IV) and severe CHF (EF<27%) than for DM2
Contraindicated if low GFR (C<30,D<25, E<45)
Caution w elderly, alcoholics, uncircumcised
May increase risk of leg and foot amputation (although Black Box warning removed). Always document foot exam if using.
Caution w nephrotoxic meds e.g. diuretics, ACEi, ARBs, NSAIDs (Always monitor renal function)
Hold if decreased fluid intake from fasting/acute illness or fluid loss from GI illness or heat exp
Highest risk of vaginal yeast infection of DMeds

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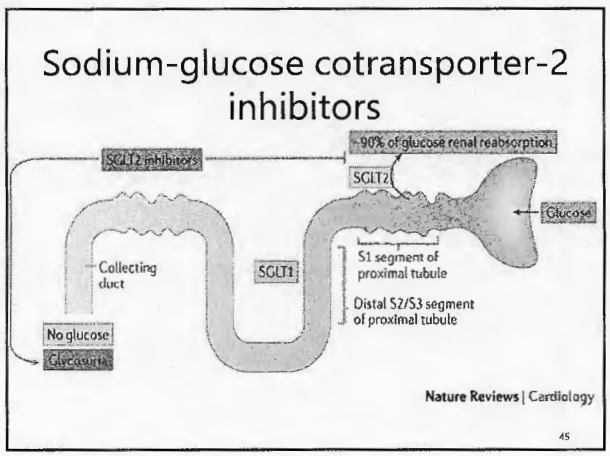
Sodium-glucose cotransporter-2 inhibitors
SGLT2 inhibitors
90% of glucose renal reabsorption
SGLT2
Glucose
Collecting duct
SGLT1
S1 segment of proximal tubule
Distal S2/S3 segment of proximal tubule
No glucose
Glycosuria
Nature Reviews | Cardiology
45

45

Combination diabetic medications since 2014

Glyxambi (Empagliflozin and Linagliptin)
Steglujan (Ertugliflozin and Sitagliptin)
Xigduo XR (Dapagliflozin and Metformin HCl Extended-Release)
Synjardy (Empagliflozin and Metformin)
Segluromet (Ertugliflozin and Metformin)

Kerendia (Finerenone) approved in July 2021 is first-in-class, nonsteroidal mineralocorticoid receptor antagonist (MRA) and is indicated to reduce the progression of chronic kidney disease, risk of kidney failure and risk of cardiovascular disease (and death) in adult patients with chronic kidney disease (CKD) associated with type 2 diabetes (T2D).

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Parenteral agents

Control

GLP-1 Analogs

Insulin

Amylin Analogs

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GLP-1 Agonist

CONTROL

- Stimulates insulin release in the presence of elevated glucose
- Decreases glucagon secretion
- Delays gastric emptying and increases satiety c ass. wt loss
- Lowers HgbA1C .78-1.9%
- Lowers triglycerides & raises HDL
- Lowers blood pressure
- Improves endothelial function
- Reduces CRP & other markers
- Decreases cardiovascular events

KAOS

- Expensive (1st line Rx?)
- Requires injection
- Pancreatitis
- GI s.e. including nausea, vomiting, diarrhea, abdominal pain
- Gastroparesis is a contraindication to use
- Medullary thyroid cancer seen in mice and rats (but not in humans)

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Key Characteristics of Currently Available Injectable GLP-1 Receptor Agonists

	Exenatide (Byetta)	Lixisenatide (Victoza) (Saxenda)	Exenatide ER (Bydureon)	Dulaglutide (Trulicity)	Semaglutide (Ozempic)
Recommended Dosing	Initiate at 5 mcg twice daily; increase to 10 mcg twice daily after 1 month based on clinical response	Initiate at 0.6 mg per day for 1 wk, then increase to 1.2 mg; may increase to 1.8 mg for additional glycemic control	Administer 2 mg once weekly	Initiate at 0.75 mg once weekly; may increase to 1.5 mg for additional glycemic control	Initiate at 0.25 mg once weekly, then after 4 wk increase to 0.5 mg once weekly; may increase to 1 mg for additional glycemic control
Indication(s)	Adjunct to diet and exercise to improve glycemic control in T2DM	• Adjunct to diet and exercise to improve glycemic control in T2DM • To reduce the risk of major adverse CV events in adults with T2DM and established CVD	Adjunct to diet and exercise to improve glycemic control in T2DM	Adjunct to diet and exercise to improve glycemic control in T2DM	Adjunct to diet and exercise to improve glycemic control in T2DM
Administration Frequency	Twice daily	Once daily	Once weekly	Once weekly	Once weekly
GLP-1 RA Type	Short-acting	Long-acting	Long-acting	Long-acting	Long-acting
Hypoglycemia Risk (monotherapy)	Low	Low	Low	Low	Low
Weight Effects	Loss	Loss	Loss	Loss	Loss

lixisenatide(Adlyxin) 20mcg SQ once daily

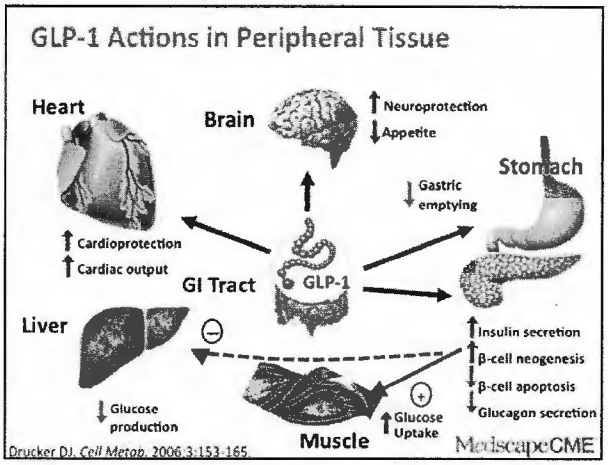
50

50

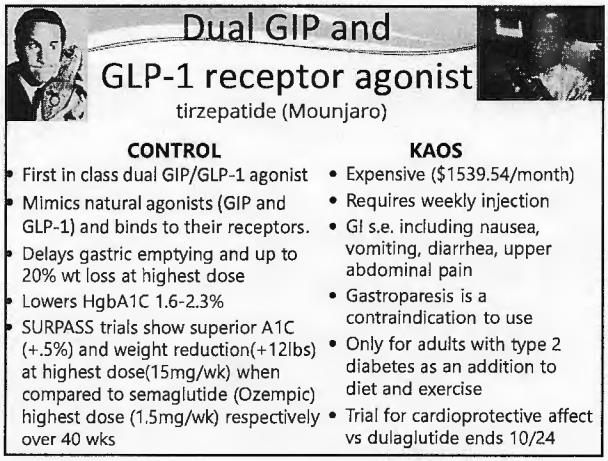
Oral semaglutide (Rybelsus)

- Rybelsus was approved on September 20, 2019, as the first oral medication in the drug class glucagon-like peptide receptor agonist (GLP-1 RA)
- Rybelsus is not recommended as first-line therapy for patients with type 2 diabetes; rather, metformin is preferred drug for initial treatment.
- The American Diabetes Association (ADA) guidelines recommend the use of a GLP-1 RA, such as semaglutide, to achieve greater blood glucose lowering over initiating insulin for patients whose oral therapy treatments have failed.
- Need to take Rybelsus at least 30 minutes before the first food, beverage, or other oral medication for the day, with no more than 4 oz of plain water.
- The most common adverse effects (AEs) include nausea, diarrhea, vomiting, decreased appetite, indigestion, and constipation. Rybelsus carries a boxed warning regarding the increased risk of thyroid c-cell tumors, and patients who have had medullary thyroid carcinoma (MTC) or a family history of MTC should not take the medication.
- The starting dose of Rybelsus is 3 mg orally once daily for 30 days. After 30 days, the dose should be increased to 7 mg once daily, which may be increased to a maximum of 14 mg once daily if additional blood glucose lowering is needed after at least 30 days on the 7-mg dose.
- The PIONEER 3 randomized clinical trial evaluated the safety and efficacy of oral semaglutide 7 mg/day and 14 mg/day compared with sitagliptin added on to metformin. There were 1864 patients. The study revealed that both doses of semaglutide compared with sitagliptin resulted in statistically significant greater reductions in A1C levels over 26 weeks ($P < 0.001$)

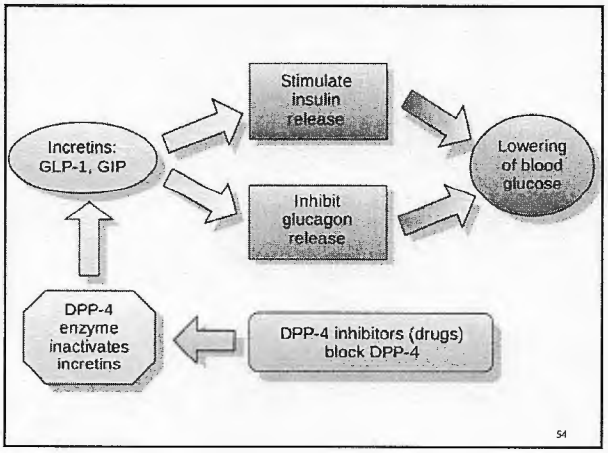
51


GLP-1 Actions in Peripheral Tissue
Heart
Brain
Neuroprotection
Appetite
Stomach
Gastric emptying
Cardioprotection
Cardiac output
GI Tract
GLP-1
Liver
Insulin secretion
β-cell neogenesis
β-cell apoptosis
Glucagon secretion
Glucose production
Glucose Uptake
Muscle
Drucker DJ. Cell Metab. 2006;3:153-165.
MedscapeCME

52


Dual GIP and
GLP-1 receptor agonist
tirzepatide (Mounjaro)
CONTROL
First in class dual GIP/GLP-1 agonist
Mimics natural agonists (GIP and GLP-1) and binds to their receptors.
Delays gastric emptying and up to 20% wt loss at highest dose
Lowers HgbA1C 1.6-2.3%
SURPASS trials show superior A1C (+.5%) and weight reduction(+12lbs) at highest dose(15mg/wk) when compared to semaglutide (Ozempic) highest dose (1.5mg/wk) respectively over 40 wks
KAOS
Expensive ($1539.54/month)
Requires weekly injection
GI s.e. including nausea, vomiting, diarrhea, upper abdominal pain
Gastroparesis is a contraindication to use
Only for adults with type 2 diabetes as an addition to diet and exercise
Trial for cardioprotective affect vs dulaglutide ends 10/24

53


Incretins: GLP-1, GIP
Stimulate insulin release
Inhibit glucagon release
Lowering of blood glucose
DPP-4 enzyme inactivates incretins
DPP-4 inhibitors (drugs) block DPP-4
54

54

Amylin Analogs

pramlintide (Symlin)

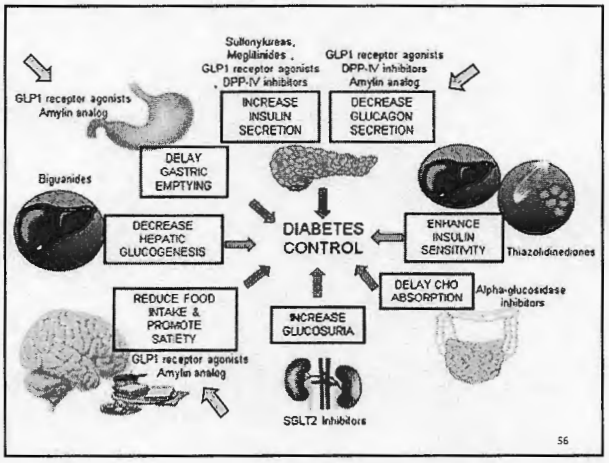
CONTROL

- Lowers insulin requirement
- Lowers A1C 1.5-2%
- Decreases post prandial glucagon production
- Delays gastric emptying
  - Increases satiety
  - Decreased caloric intake
  - Resultant weight loss

KAOS

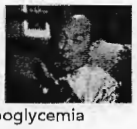
- Expensive ($977 for 2 pens w GoodRX)
- Requires injection separate from insulin before meals
- Severe hypoglycemia with insulin
- Gastroparesis is a contraindication to use
- Nausea, vomiting, abdominal pain
- Headache
- Dizziness
- Arthralgia
- May reduce absorption of meds

55



56

Insulin



CONTROL

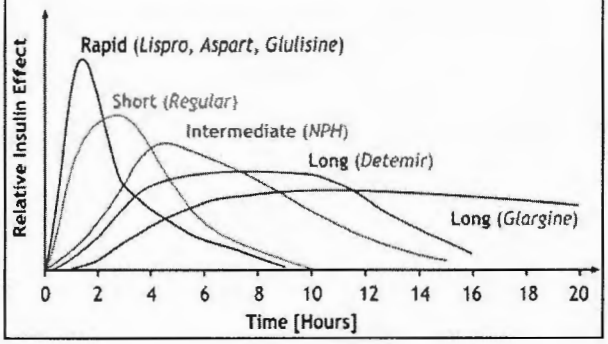
- Relatively inexpensive
- Can lower HgbA1c significantly
- Effective even in late stages
- Available in bottles, pens, pumps and nasal spray

KAOS

- Significant hypoglycemia
- Usually requires injection
- Associated with atherosclerotic weight gain and lipogenesis
- No reduction in CV events per ADVANCE, ACCORD, VADT

57

Insulin effect and length of action



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Insulin Products Comparison Chart

Type of Insulin	Brand Name/ Formulary Status/ Manufacturer	Concentration	May Be Mixed With	Onset	Peak	Duration	Administration in Relation to Meals
Prandial or Correction (Rapid Acting)							
Aspart	Novolog® (F) Novo Nordisk	100 units/mL	NPH	10 to 20 minutes	1 to 3 hours	3 to 5 hours	5 to 10 minutes before meals
Lispro	Humalog® (NF) Lilly	100 units/mL	NPH	15 to 30 minutes	1 to 2 hours	3 to 5 hours	15 minutes before or immediately after meals
Prandial or Correction (Short Acting)							
Regular	Novolin® R (R) Novo Nordisk	100 units/mL	NPH	30 to 60 minutes	2 to 4 hours	4 to 8 hours	30 minutes before meals
Regular	Humulin® R U-500 (F) Lilly	500 units/mL	do not mix with other insulins	30 to 60 minutes	2 to 4 hours	4 to 8 hours	30 minutes before meals
Regular	Humulin® R (NF) Lilly	100 units/mL	NPH	30 to 60 minutes	2 to 4 hours	4 to 8 hours	30 minutes before meals
Basal (Intermediate Acting)							
NPH	Novolin® N (F) Novo Nordisk	100 units/mL	aspart, regular	1 to 2 hours	6 to 14 hours	16 to 24 hours	§see below
NPH	Humulin® N (NF) Lilly	100 units/mL	lispro, regular	1 to 2 hours	6 to 14 hours	16 to 24 hours	§see below
Basal (Long Acting)							
Glargine	Lantus® (F) Aventis	100 units/mL	do not mix with other insulins	1 to 2 hours	no peak	24 hours	without regard to meals

Other basal long acting insulins include:
glargine (Lantus, Toujeo, Basaglar), detemir (Levemir) and degludec (Tresiba)

59

59

New injectable meds since 2015

- **Tresiba** approved in 2015, is a brand-name version of the drug insulin degludec that lasts up to 42 hours. It's injected once daily.
- **Basaglar and Toujeo** approved 2015 are two new forms of insulin glargine. Both injected once daily similar to another insulin glargine drug called Lantus. (Toujeo is a more concentrated form of insulin glargine)
- **Xultophy** was approved in 2016 combines insulin degludec, a long-acting insulin, and liraglutide, a GLP-1 agonist.
- **Soliqua** was approved in 2016 combines the drug insulin glargine with lixisenatide, a GLP-1 receptor agonist.
- **Adlyxin** (lixisenatide) approved in 2016 is GLP-1 agonist injected once daily.
- **Ryzodeg** was approved in September 2016. It's designed to be used to treat both type 1 and type 2 diabetes. Ryzodeg combines insulin degludec with insulin aspart. It's meant to be injected once or twice daily. (Available in multiple countries but not readily available in US)
- **Ozempic** (semaglutide) approved in late 2017 is a GLP-1 agonist injected once per week (FDA approved semaglutide in oral form in 2019)
- **Semglee** (Insulin Glargine-Yfgn) approved in 2020 is a synthetic, long-lasting insulin medication used to help manage high blood sugar in adults and pediatric patients with type 1 diabetes, as well as adults with type 2 diabetes.
- **Mounjaro** (tirzepatide) approved May 2022 is first in class dual GIP and GLP-1 agonist with significant decreases in HgbA1c and weight reduction benefits.

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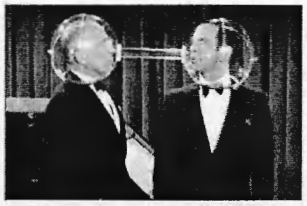
60

Inhaled medication for diabetes

Afrezza *is a fast-acting insulin approved in 2014 which comes as a powder that you breathe in through your mouth with an inhaler. It is approved for type 1 and type 2 diabetes. Afrezza comes in cartridges that deliver 4 units, 8 units, or 12 units of the drug. It has a black boxed warning for acute bronchospasm in people with asthma or COPD.*



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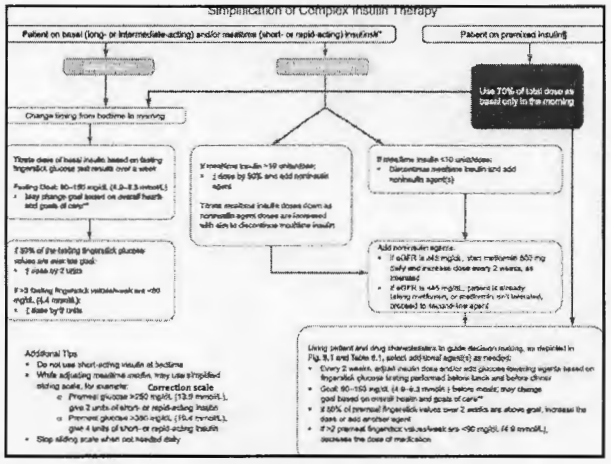

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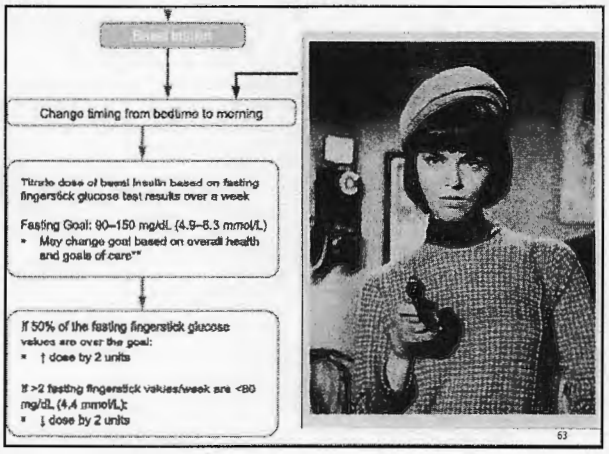

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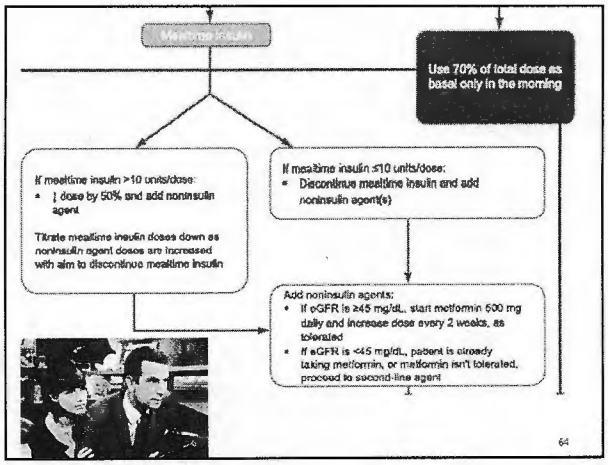

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Additional Tips

- Do not use short-acting insulin at bedtime
- While adjusting mealtime insulin, may use simplified sliding scale, for example: **Correction scale**
  - Premeal glucose >250 mg/dL (13.9 mmol/L), give 2 units of short- or rapid-acting insulin
  - Premeal glucose >350 mg/dL (19.4 mmol/L), give 4 units of short- or rapid-acting insulin
- Stop sliding scale when not needed daily

65

65

Quick summary on Diabetic medications in the geriatric patient

- Metformin should be first line therapy for most diabetic patients unless GFR<30. Age alone should not be a determining factor. Consider GLP-1 and SGLT2 agents if indicated (heart/kidney dx)
- Addition of basal insulin should be considered early on for safe and effective treatment of diabetes with adjustments determined by fasting blood sugars.
- Glyburide called out by ADA as the worst of the 2nd generation sulfonylureas in terms of hypoglycemic risk for the elderly
- DPP-4 agents are not encouraged due to excessive costs and lower efficacy.
- SGLT-2 agents are essentially ineffective for lowering HgbA1c and very expensive BUT do have a potential role in CHF (EF<27%) and CKD IIIb (GFR >25-45) as long as there is albuminuria, diabetes, or heart failure present.

66

66

Diabetes in the Elderly

- Symptoms of hypoglycemia and hyperglycemia are atypical in elderly
- Demented or aphasic patients are unable to communicate their hypoglycemic symptoms
- Hypoglycemic symptoms may be blamed on dementia, psychosis, infection (UTI, sepsis), cardiovascular disease, seizures, stroke, etc. and treated incorrect

67

Survival as a function of HgbA1c in people with type 2 diabetes: a retrospective cohort study

- All cause mortality was primary outcome
- 47,970 people over 50 years of age followed over 12 years
- Ideal Hgb A1c?
  - 6.5
  - 7.5
  - 10.5

Lancet 375; Issue 9713; page 481-489 2/6/10

68

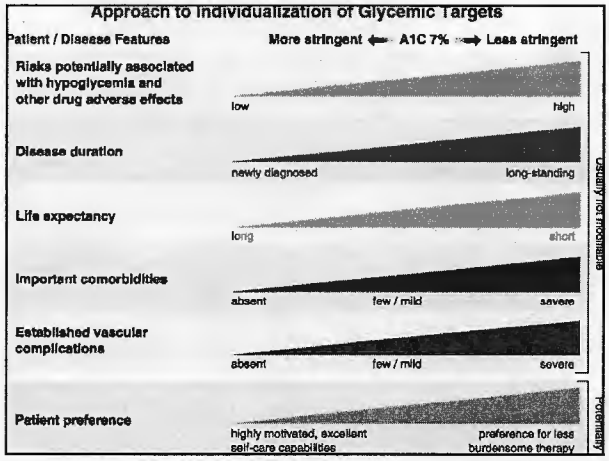
Survival as a function of HgbA1c in people with type 2 diabetes: a retrospective cohort study

- All cause mortality was primary outcome
- 47,970 people over 50 years of age followed over 12 years
- Ideal Hgb A1c:
  - 6.5 Hazard Ratio 1.52
  - 7.5 Hazard Ratio 1.0
  - 10.5 Hazard Ratio 1.79

Lancet 375; Issue 9713; page 481-489 2/6/10

69

70



71

Sliding Scale: CHAOS or CONTROL?

- Although sliding-scale insulin (SSI) is widely used in hospitals and LTC facilities, its routine and prolonged use is not recommended

72

Sliding Scale: CHAOS or CONTROL?

- An insulin sliding scale often generates a roller-coaster pattern of glucose values
- Very high blood glucose values are treated with insulin, sometimes with ensuing hypoglycemia.
- The hypoglycemia is then treated with (often excessive quantities of) carbohydrates and without insulin, with ensuing hyperglycemia.
- Practitioner is often notified when blood glucose level is <60 0r >400

73

Sliding Scale: CHAOS or CONTROL?

- An insulin sliding scale is reactive, responding to the current blood glucose level, but is not anticipatory or proactive. It does not anticipate carbohydrate intake, metabolic stress or physical activity.
- As usually written, an insulin sliding scale is a device for sustaining hyperglycemia in a patient with uncontrolled diabetes.
- It provides insulin only when the blood glucose is above a threshold value, typically 150-200 mg/dL, and then provides only small doses of insulin, e.g., 2 to 6 units, for values just above that threshold.
- The consequence is that the patient often receives inadequate doses of insulin until the blood glucose level is unacceptably high, often over 300 mg/dL.

74

Sliding Scale: CHAOS or CONTROL?

- Sliding Scale Insulin results in:
  - Greater patient discomfort (stuck up to 8 times a day)
  - Increased nursing time
  - Interference with daily activities in LTC
  - Compromised quality of life
  - Hyperglycemia and Hypoglycemia

75

Sliding Scale: CHAOS or CONTROL?

- Studies show that SSI is neither effective nor efficient
- In a prospective randomized trial in 130 hospital patients with type 2 diabetes, a basal-bolus insulin regimen achieved superior control compared with SSI (RABBIT 2 Trial in Diabetes Care 2007;30: 2181-2186)

76

Intensive Control of Blood Glucose in ICU patients: CHAOS or CONTROL?

- Intensive blood sugar control for 6104 critical care patients with hyperglycemia does not improve outcomes and is associated with a 14% increase in deaths (NICE-SUGAR study NEJM 360:1283-97, 2009)
- Randomized control trial showed that intensive perioperative glucose control did not improve outcomes of open heart surgery patients (Raquel Pei Chen Chan et al. Clinics vol.64 2009)
- Meta analysis of 26 studies (n=13,500) showed that lowering BS with intensive insulin treatment does not affect mortality in critically ill patients (Berge, Mesotten CMAJ April 14,2009)

77

SSI may be useful to help calculate fixed daily insulin requirement

- Newly recognized diabetics
- When insulin requirements are unknown (e.g. acute illness)
- When new therapies are initiated (TF, glucocorticoids)
- SSI (or Correction scale) insulin should be evaluated within 5-7 days and converted to fixed daily insulin which has been shown to provide better control and less hypoglycemia

Be sure to reevaluate or put stop date on SSI to avoid an order remaining in effect indefinitely

78

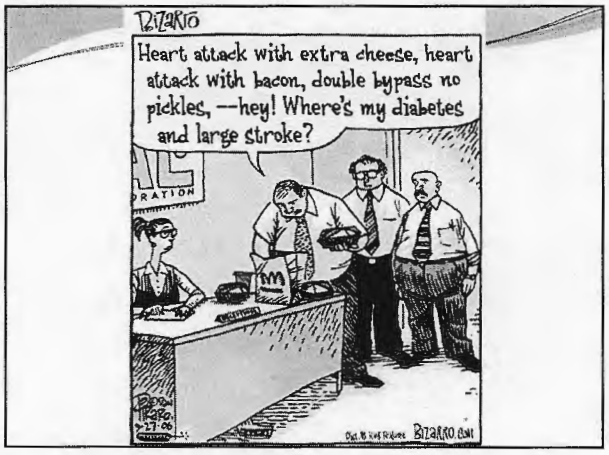
The Geriatric Diabetic Diet

79

What is the best diet for an 85 year old 110lbs diabetic female in a skilled nursing facility?

- 1800 calorie ADA diet
- Low fat low salt cardiac diet
- Mech. soft diet with small portions
- Fiber rich diet with carbohydrates
- NCS diet (no concentrated sweets)

80



81

Would you believe?

- 1800 calorie ADA diet
- Low fat low salt cardiac diet
- Mech. soft diet with small portions
- Fiber rich diet with carbohydrates
- NCS (no concentrated sweets) diet

82

83

84

Diabetic diet rules for geriatrics

- Regular diet with consistent amounts of carbohydrates and adequate fiber
- Consistent meal times
- Time oral agents and insulin to caloric consumption
- Control portion size
- Base caloric need on weight and activity

85

"The healthiest part of a donut is the hole. Unfortunately, you have to eat through the rest of the donut to get there!"

86

Avoid strict diets that may result in malnutrition states in patients already at risk

87

87

"The more you restrict the diet the more they cheat"

OH, FOR HEAVENS SAKE, EMILY... STOP CHEATING AND JUST GO ON A DIET LIKE EVERYONE ELSE!!

88

89

Step One

- Lifestyle modification
- Initiate oral medication
- Basal insulin?

90

Step Two

- Additional oral agent
- Insulin (basal)

91

Step Three

- Intensify meds and insulin to establish appropriate goals

92

Late onset diabetes not equivalent CHD risk factor Archives of Internal Medicine March15, 2011

- Prospective study of 4,000 middle aged men
- Patients 60 years and older with mean diabetes duration of 5 years had a CHD risk ½ that of patients diagnosed before age 60 with diabetes for more than 16 years

93

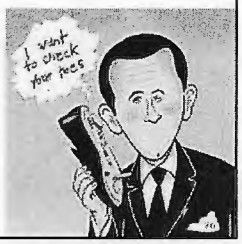
Late-onset diabetes not equivalent CHD risk factor Archives of Internal Medicine March15, 2011

EVENT	No DM and no prior MI N=3197	Late-onset DM2 N=307	Early-onset DM2 N=107	Men with prior MI and no DM2 N=368
Major Coronary heart Disease	1.0	1.54	2.39	2.51
Major CV disease	1.0	1.37	2.08	2.17
All-cause mortality	1.0	1.31	1.68	1.48

94

American Diabetes Association Guidelines for Type 2 Diabetes

- Hgb A1C <7.0 ~~<6.5-7.0~~
- Fasting glucose 80-130mg/dL
- Postprandial glucose <180mg/dL
- Blood pressure <1~~30/80~~ ~~140/90~~
- Lipids: LDL<100mg/dL; TG <150 mg/dL
  - → **LDL<70 if heart disease**
- Yearly:
  - dilated eye exam
  - urinary protein
  - foot exam
  - flu shot
- ASA use and pnemococcal vaccine
  - → **aspirin if CVD or prior MI**



95

Guidelines for Type 2 Diabetes in the geriatric patient

- Hgb A1C <~~7.0%~~ **7.5-8.5% or higher**
- Blood pressure <1~~40/90~~ **<150/90**
- Lipids: LDL<~~100~~ mg/dL **Statin if tolerated**
- A~~SA~~
- Diet: A~~ha~~ die **Fiber rich regular diet**
- Yearly:
  - Dilated eye exam
  - GFR/urinary protein
  - Podiatric foot exam
  - Flu shot (pneumonia vax)

Screen for cognitive impairment & depression

Avoid longterm sliding scale insulin

96

TABLE 1
Evidence-based guidelines for diabetes management in the elderly[3,4]

Health status/patient characteristics	A1C goal (%)	Treatment considerations
Healthy Few coexisting chronic illnesses Intact cognitive and functional status	<7.5	Metformin is the first-line medication if not contraindicated. Patient-specific factors determine which agents are appropriate for dual or triple therapy, if indicated, to achieve glycemic control.
Complex/intermediate Multiple coexisting chronic illnesses Mild to moderate cognitive impairment 2 or more instrumental ADL impairments	<8	For patients with multiple comorbid conditions or a short life expectancy, evaluate the risks and benefits of using antidiabetic medication. Patient-specific factors dictate the choice of medication therapy (if indicated to achieve glycemic control).
Poor Long-term care or end-stage chronic illnesses Moderate to severe cognitive impairment 2 or more ADL dependencies	<8.5	Less aggressive A1C goals may be appropriate for many, and discontinuation of medication may be the proper course of treatment. This group includes those with severe cardiovascular disease, end-stage chronic diseases in addition to diabetes, and life expectancy <5 years.

A1C, glycated hemoglobin; ADL, activities of daily living.

97

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Modify treatment goals in geriatric patients with:

- Poor hypoglycemia awareness
- Recurrent idiopathic hypoglycemia episodes
- Anorexia
- Feeding dependency
- Gangrene
- Malignancy
- Severe dementia
- Life expectancy of less than 5 years

98

Treatment goals in the geriatric diabetic patient

- Appropriate goals for BS control while avoiding hypoglycemia
- Maintain nutritional status (liberal high fiber diet)
- Physical activity/exercise (150 min/wk) Walking, Tai Chi, Yoga, Dancing, Swimming AND include => 2 days of isometric resistance, strength, and balance training)
- Control pain and depression DL1
- Appropriate blood pressure and lipid management goals (statins not indicated if life expectancy < 2years)
- Reduce lower extremity infections, ulcers, and limb loss
- Individualize and simplify regimens taking into account preferences, life expectancy, and quality of life
- Discuss and document advanced directives

99

Slide 99

DL1 David LeVine, 7/4/2021

Treatment goals in the elderly diabetic patient

- *ADA recommends avoidance of lows at all cost, while avoiding "severe" hyperglycemia.*
- *ADA calls for Hgb A1C <8.5% but notes that "many conditions" in the LTC patient can interfere with the A1C test.*
- *In advanced disease, "forget the friggin' A1C" and call for pre-meal glucose of up to 200 as being acceptable.*
- *For patients at the end of life, the ADA says the A1C, has "no role," and further, that there is "no benefit" of glycemic control at all, except "avoiding symptomatic hyperglycemia."*

100

Considerations in the elderly diabetic patient

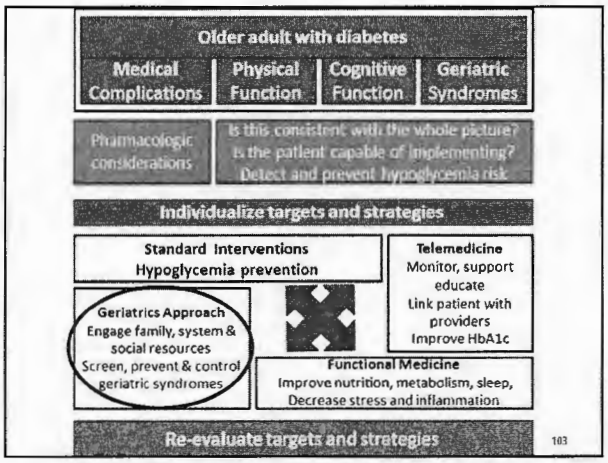
- *Glycemic goals need to be personalized*
- *Simplified treatment regimens are preferred*
- *The "diabetes diet" is "outdated," ineffective, and should be dropped to avoid dehydration, and unintentional weight loss*
- *The use of sliding scale insulin is to be avoided and use of sliding scale insulin has been added to the American Geriatrics Society (AGS) Beers Criteria for Potentially Inappropriate Medication use in Older Adults,*

101

Considerations in the elderly diabetic patient

Care transitions are extremely important in this population and require close communication between transferring and receiving care teams to ensure patient safety and reduce readmission rates.

102



103

Considerations in the elderly diabetic patient

Always remember: First, DO NO HARM!!! Avoid adverse drug effects and hypoglycemia

104

THE END

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FMDA's 31st Annual Conference and Trade Show

AHCA Regulatory Update
November 5, 2022
2:55PM-3:55PM

Kimberly R. Smoak, MSH, QIDP
Division of Health Quality Assurance

1

1

Objectives

Identify	• Identify the top federal tags cited in Florida
Discuss	• CMS Memos, including new changes and State legislative updates
Describe	• What is Immediate Jeopardy and Other Agency Updates

2

2

Highlights of Top 10 Florida Nursing Home Federal Tags

- The 10 top tags are the same as last year, but different ranking
- Top ranking tag for 2022 is the same as last year
- Three of the top 10 tags relate to Quality of Care
- Two of the top 10 tags relate to Quality of Life
- F880 citations are decreasing since the beginning of the COVID-19 pandemic

3

3

Top Ten Florida Nursing Home Federal Tags

January 2022 to October 2022

Rank	Tag	Tag Title
1	F812	Food Safety Requirements
2	F684	Quality of Care
3	F761	Label/Storage of Drugs and Biologicals
4	F695	Respiratory/Tracheostomy care
5	F689	Free of Accident Hazards/Supervision/Devices
6	F656	Develop/Implement Comprehensive Care Plan
7	F584	Safe/Clean/Comfortable/Homelike Environment
8	F842	Resident Records - Identifiable Information
9	F677	ADL Care Provided to Dependent Residents
10	F880	Infection Prevention & Control

4

4

F812 – §483.60(i) Food Safety Requirements

The facility must –

§483.60(i)(1) - Procure food from sources approved or considered satisfactory by federal, state or local authorities.

(i) This may include food items obtained directly from local producers, subject to applicable State and local laws or regulations.

(ii) This provision does not prohibit or prevent facilities from using produce grown in facility gardens, subject to compliance with applicable safe growing and food-handling practices.

(iii) This provision does not preclude residents from consuming foods not procured by the facility.

§483.60(i)(2) - Store, prepare, distribute and serve food in accordance with professional standards for food service safety.

5

5

F684 – §483.25 Quality of Care

- Quality of care is a fundamental principle that applies to all treatment and care provided to facility residents. Based on the comprehensive assessment of a resident, the facility must ensure that residents receive treatment and care in accordance with professional standards of practice, the comprehensive person-centered care plan, and the residents' choices…..

6

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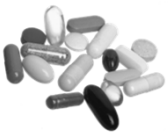

F761 – Labeling/Storage of Drugs and Biologicals

7

F761 – §483.45(g) Labeling/Storage of Drugs and Biologicals

§483.45(g) Drugs and biologicals used in the facility must be labeled in accordance with currently accepted professional principles, and include the appropriate accessory and cautionary instructions, and the expiration date when applicable.

§483.45(h)(1) In accordance with State and Federal laws, the facility must store all drugs and biologicals in locked compartments under proper temperature controls, and permit only authorized personnel to have access to the keys.

§483.45(h)(2) The facility must provide separately locked, permanently affixed compartments for storage of controlled drugs listed in Schedule II of the Comprehensive Drug Abuse Prevention and Control Act of 1976 and other drugs subject to abuse, except when the facility uses single unit package drug distribution systems in which the quantity stored is minimal and a missing dose can be readily detected.

8

Ways to Improve Regulatory Compliance

- Read the actual regulations and interpretive guidance several times
- Conduct daily care rounds
  - Use formalized checklists or forms to monitor, but remember they don't include everything
  - Have different staff conduct rounds to get a fresh perspective
- Conduct daily communication opportunities
  - Talk to staff, residents and families – really listen and ask them if they could make something better, what would that be
- Sufficient nursing staff is key to good outcomes and better compliance
- QAPI is your lifeline!
- Put your residents first, not your own self-interests – that is what ethics and compliance is all about!

9

Overview of CMS Memos

10

10

CMS QSO Memo 22-19 NH Revised Long Term Care Guidance

- Revisions to Surveyor Guidance for Phases 2 & 3, Arbitration Agreement Requirements, Investigating Complaints & Facility Reported Incidents, & Psychosocial Outcome Severity Guide
- Effective October 24, 2022
- References advanced copies of Appendix PP, Psychosocial outcome Severity Guide and Chapter 5 State Operations Manual Complaint Procedures
- Free CMS training available in the Quality Safety & Education Portal (QSEP) at https://qsep.cms.gov/welcome.aspx
- *Get started now!*

11

11

Links to QSO Memo & Advanced Copies of Revised Survey Guidance

- CMS QSO Memo 22-19-NH – https://www.cms.gov/files/document/qso-22-19-nh.pdf-0
- Appendix PP – https://www.cms.gov/files/document/appendix-pp-guidance-surveyor-long-term-care-facilities.pdf
- Psychosocial outcome Severity Guide – https://www.cms.gov/files/document/psychosocial-outcome-severity-guide.pdf
- Chapter 5 State Operations Manual Complaint Procedures – https://www.cms.gov/files/document/som-chapter-5-complaint-procedures.pdf
- SOM Exhibit 358- Sample Form for Facility Reported Incidents (PDF) – https://www.cms.gov/files/document/som-exhibit-358-sample-form-facility-reported-incidents.pdf
- SOM Exhibit 359- Follow-up Investigation Report (PDF) – https://www.cms.gov/files/document/som-exhibit-359-follow-investigation-report.pdf

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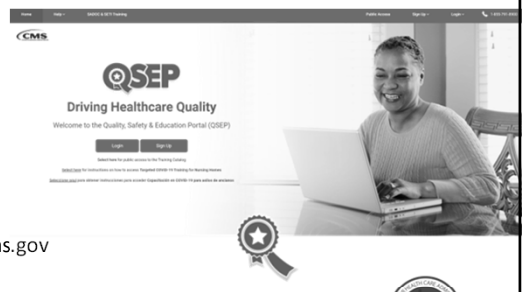
QSEP is Your Friend!



www.qsep.cms.gov

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16 Regulatory Group Guidance Revisions

Resident Rights	Abuse & Neglect	Admission/ Transfer and Discharge Rights	Quality of Life
Quality of Care	Physician Services	Nursing Services	Behavioral Health
Pharmacy Services	Food and Nutrition Services	Administration	Quality Assurance & Performance Improvement
Infection Control	Compliance and Ethics Program	Physical Environment	Training Requirements

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Regulations with Major Guidance Revisions

15

15

483.70 Administration: Binding Arbitration Agreements

- New Guidance for **F847** Binding Arbitration Agreement and **F848** Arbitrator/Venue Selection and Retention of Agreements
  - Applies to binding arbitration agreements entered into **on or after September 16, 2019**

16

16

Key Revisions to Quality Assurance and Performance Improvement (QAPI)

- New guidance in F865 for the QAPI plan and program
- Requirements in F866 have been moved to F867
- New requirements for the QAPI program, feedback, data collection, analysis and monitoring, and improvement activities
- Expansion of required Quality Assessment and Assurance (QAA) required committee members
  - Infection Preventionist
- New QAPI training requirements

17

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Compliance Program and Ethics – F895

- Requires the operating organization of each facility to have a compliance and ethics program
  - That is reasonably designed, implemented, maintained and enforced to be likely effective
    - For prevention and detection of *criminal, civil, and administrative* violations under the Act and in promoting quality of care

18

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F895 Compliance Program and Ethics for *All Facilities*

- Compliance and Ethics Program guidance language includes –
  - Written standards, policies and procedures
  - High-level Personnel Oversight
  - Sufficient Resources and Authority
  - Delegation of Substantial Discretionary Authority
  - Effectively Communicating Program Standards, Policies, and Procedures
  - Reasonable Steps to Achieve Program Compliance
  - Consistent Enforcement through Disciplinary Mechanisms
  - Response to Detected Violations
  - Annual Review

19

19

F895 Compliance Program and Ethics for *Operating Organizations with 5 or More Facilities*

- Additional requirements –
  - Mandatory Annual Training
  - Designated Compliance Officer
  - Designated Compliance Liaison

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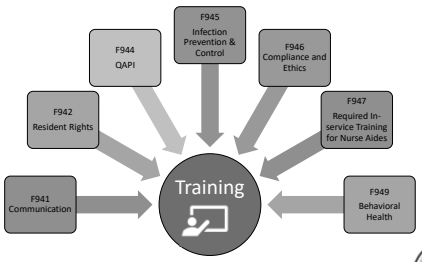
Training Requirements with Revisions



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Highlights of New Training Requirements and Guidance

- F941, Communication
- F942, Resident Rights
- F944, QAPI
- F945, Infection Prevention and Control
- F946, Compliance and Ethics
- F949, Behavioral Health

22

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Highlights of Infection Prevention & Control Revisions

- Updated & clarified guidance for the COVID-19 pandemic related to PPE, environmental cleaning and disinfection, reporting to disease outbreaks to health authority, etc.
- Added guidance for Multi-drug Resistant Organisms (MDROs), Legionellosis, and facility water management.
- Updated guidance for Transmission-Based Precautions, contact precautions, droplet precautions, disinfection of blood glucose meters, and safe medication practices regarding insulin pen labels to warn against sharing devices.

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Key Revisions for Infection Preventionist – F882

- Employed at least part-time and determined by facility assessment
  - Must work onsite at facility, be a member of QAA committee and report regularly on Infection Prevention & Control Program
- Responsible for IPCP includes IPCP & Antibiotic Stewardship Program
- Primary professional training –
  - Nursing, medical technology, microbiology, epidemiology or other related field (physician, pharmacist, PAs)
- Must stay current with IPC issues and be aware of national organizations' guidelines and national/state/local public health authorities guidelines

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Resident Rights & Abuse/Neglect Revisions

- F557, Respect, Dignity/Right to have Personal Property – addresses mental health and substance use disorders throughout guidance
  - Facilities can't search resident belongings without permission and shouldn't act as the arm of law enforcement for resident illegal substance possession
- F600, Abuse & Neglect – added guidance related to neglect
- F608, Reporting of Reasonable Suspicion of a Crime, will be deleted, and guidance will be included in F607/F609
- F609, Reporting Alleged Violations – facility reported incidents must be submitted *timely and accurately*

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Admission/Discharge & Behavioral Health Revisions

- F623, Notice Requirements Before Transfer/Discharge – transfer or discharge notice should contain the specific transfer or discharge location
- F626, Permitting Residents to Return to Facility –
  - Policies for bed-hold and permitting residents to return following hospitalization or therapeutic leave apply to all residents, regardless of their payment source
  - Not permitting a resident to return following hospitalization or therapeutic leave may constitute a facility-initiated discharge
  - If a resident was forced, pressured, or intimidated into leaving AMA, the discharge would be considered a facility-initiated discharge
- Behavioral Health, F740 & F741 – addresses residents with mental health, substance use disorders, trauma and PTSD

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Quality of Care Revisions

- F689, Accidents/Supervision – addresses electronic cigarettes and safety of residents with substance use disorder
- F694, Pain Management –
  - Facilities should assess residents for history of past addiction and related treatment and employ strategies to address pain for residents with history of opioid use disorder
  - Addresses prevention of opioid overdoses by administering naloxone
- F700, Bed Rails –
  - Bedrails do not have to be removed or disabled when not in use
  - If bedrails are determined to be inappropriate for a resident, if left on the bed in the down position, raising the rail would be considered noncompliance

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Payroll Based Journal & Nursing Services – F851

- F851, 483.70(q) Mandatory Submission of Staffing Information Based on Payroll Data in a uniform format (Payroll Based Journal or PBJ) is an *Administration* regulation, but affects Nursing Services
- Surveyors will be using PBJ data from CASPER report to identify concerns with nursing staffing
- F851 focuses on the submission of the staffing data which is now critical for the LTCSP
- Surveyors will cite F851 if facilities if they fail to submit complete, accurate, and timely data required for PBJ

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Nursing Services, Sufficient Staff – F725 Revisions

- New guidance states compliance with State staffing standards is not necessarily determinative of compliance with Federal staffing standards that require a sufficient number of staff to meet all of the residents' basic and individualized care needs
  - Facilities may meet a state's minimum staffing ratio requirement, and still need more staff to meet the needs of its residents
  - Facilities are also required to provide licensed nursing staff 24 hours a day, 7 days a week
- The LTCSP process will alert surveyors of specific dates that require further investigation related to staffing and use the CE Pathway of Sufficient and Competent Staffing

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Pharmacy Services Regulatory Group Revisions

- Addresses disposal of Fentanyl patches in relation to life threatening risks with exposure to or ingestion of hazardous waste
- Clarified other classes of drugs not listed in the regulation and how they are affected by the psychotropic medication requirements (i.e., use of anticonvulsants for mood disorders)
- Addresses potential misdiagnoses, such as schizophrenia, in order to prescribe antipsychotics
- Directs surveyors to evaluate if a resident experienced psychosocial harm related to side effects of medications

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Major Revisions to the Psychosocial Outcome Severity Guidance

- Psychosocial Outcome Severity Guide can help determine severity of an outcome when the impact on the resident may not be apparent or documented
- Provided examples of when a resident may experience a greater psychosocial harm when experiencing no physical harm from physical assault
- Severity of psychosocial outcome is determined by gathering evidence through observation, interview and record review and resident behavior
- New guidance on how surveyors should apply the reasonable person concept

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CMS QSO Memo 23-01 NH Revisions to Special Focus Facility (SFF) Program –October 21, 2022

- Section I: SFF Candid List
  - Florida has 3 SFF's
- Section II: Initial Selection of SFF
- Section III: Progressive Enforcement
- Section IV: Graduation from the SFF Program

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CMS QSO Memo 23-01 NH Revisions to Special Focus Facility (SFF) Program- October 21, 2022

- Section V: Termination
- Section VI: Factors Considered for Graduation or Termination
- Section VII: Post-Graduation
- Section VIII: Operational Procedures

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The National Imperative to Improve Nursing Home Quality

- Statement of Task
  - Examine how our nation delivers, regulates, finances and measures the quality of nursing home care.
  - Delineate a frameworks and general principles for improving the quality of care in nursing homes.
  - Consideration of COVID-19 pandemic

34

34

Seven Goals

1- Deliver comprehensive, person-centered, equitable care that ensures residents' health, quality of life, and safety; promotes autonomy; and manages risks.

2- Ensure a well-prepared empowered, and appropriately compensated workforce.

3-Increase the transparency and accountability of finances, operations, and ownership.

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Seven Goals, continued

4-Create a more rational and robust financing system.

5- Design a more effective and responsive system of quality assurance.

6-Expand and enhance quality measurement and continuous quality improvement.

7-Adopt health information technology in all nursing homes.

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Immediate Jeopardy Discussions

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IJ Definition

§488.301

Immediate Jeopardy means a situation in which the provider's noncompliance with one or more requirements of participation has caused or is likely to cause serious injury, harm, impairment, or death to a resident.

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Immediate Jeopardy Numbers

July 2022	August 2022	September 2022
7	7	6

39

39

Core Appendix Q Guidelines for Immediate Jeopardy

- IJ must have 3 components
  - Noncompliance
  - Actual or *likely* serious injury, harm, impairment or death
  - Need for immediate action
- Psychosocial harm matters
- Immediate Jeopardy notification requires the IJ Template

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Facility Response to Immediate Jeopardy Found

- Act quickly – procrastination extends the IJ duration, which increases impact of enforcement actions
- Be forthright in providing information to surveyors.
  - Remember you must abide by professional Code of Ethics
- Begin your investigation immediately and document what you are doing every step of the way
- Provide surveyors
  - Investigation documentation
    - Your interviews with all persons involved in the incident
  - Staff education/competencies
  - Documentation of anything you did to reduce the serious harm or likely serious harm and to correct the issues.
- Begin QAPI process & follow up on corrective actions to determine effectiveness

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Immediate Jeopardy Removal Plan

- No longer called an "Allegation of Compliance" in LTC
  - Purpose of the plan is to removal of serious harm or likely serious harm, *not to achieve compliance*.
- IJ Removal Plan *is not* a Plan of Correction
  - Include only immediate actions necessary to remove the serious harm or likely serious harm
  - Plan of correction includes correcting the system that caused the issue
- Removing staff or residents does not necessarily remove the IJ
- If more than one IJ tag, the IJ Removal Plan must address each area of noncompliance and immediate actions will be different for each.

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Final Thoughts –

- Read the Appendix PP Severity Guidance for each regulation (if applies)
  - Provides examples of Level 4 severity (IJ)
- Ensure that you have the necessary structures and processes (staff, supplies, services, policies, training, or staff supervision and oversight) to meet the resident's needs to prevent neglect
- Information about citations is available on CMS Survey & Certification's QCOR (Quality, Certification and Oversight Reports) and FloridaHealthFinder

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State Legislation

44

44

SB 988- "No Patient Left Alone Act"

- 408.823 In-Person Visitation
  - Establish visitation policies and procedures must at a minimum include;
    - Infection control and education policies for visitors;
    - Screening;
    - Personal protective equipment; and
    - Other infection control protocols for visitors;
    - Permissible length of visits; and numbers of visitors, which must meet or exceed the standards in ss. 400.022 (1) (b) and 429.28(1)(d), and;
    - Designation of a person responsible for ensuring that staff adhere to the policies and procedures.
    - Must allow consensual physical contact between resident, client, patient and the visitor.
    - May **NOT** require visitors to submit proof of any vaccination or immunization.

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HB 1239 Nursing Home State Staffing

- **Direct Care Staff Definition**
  - Persons who, through interpersonal contact with residents or resident care management, provide care and services to allow residents to attain or maintain the highest practicable physical, mental, and psychosocial well-being, including, but not limited to, disciplines and professions that must be reported in accordance with 42 C.F.R. s. 483.70(q) in the categories of direct care services of nursing, dietary, therapeutic, and mental health.

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Direct Care Staff

- **Does not include** a person whose primary duty is maintaining the physical environment of the facility, including, but not limited to, food preparation, laundry, and housekeeping.
- **Does not include** time spent on nursing administration, activities program administration, staff development, staffing coordination, and the administrative portion of the MDS and care plan coordination for Medicaid.
- Determined by each facility based on the facility assessment and the individual needs of a resident based on the resident's care plan.

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Minimum Requirements

- Weekly (Sunday through Saturday) average of 3.6 hours of care by direct care staff per resident per day
- **2.0** hours of direct care by a CNA per resident per day
- May not staff below one CNA per 20 residents
- 1.0 hour of direct care by a licensed nurse per resident per day
- May not staff below one licensed nurse per 40 residents

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Failure to Comply

Facility that has failed to comply with state minimum-staffing requirements for 48 consecutive hours is prohibited from accepting new admissions until the facility has achieved the minimum-staffing requirements for 6 consecutive days.

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Agency Resources and Reminders

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Sign up for Email Health Alerts

http://ahca.myflorida.com/MCHQ/alerts/alerts.shtml

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Agency Alert- September 20, 2022

- Operational Updates: Hospitals & Long Term Care Facilities
- This health care alert is to remind Florida's hospitals and long-term care facilities (nursing homes, assisted living facilities, and intermediate care facilities for the developmentally disabled) of standard protocols, including recommendations against screening, masks, and other measure known as "source control" for COVID-19. Additionally, Providers are obligated to allow for robust visitation and must adhere to Florida's prohibition against blanket employer vaccine mandates for COVID-19.

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Hurricane Ian Discussion

- Evacuations
- Power outages
- Damages
- Nursing homes and assisted living facilities out of service
- Communication

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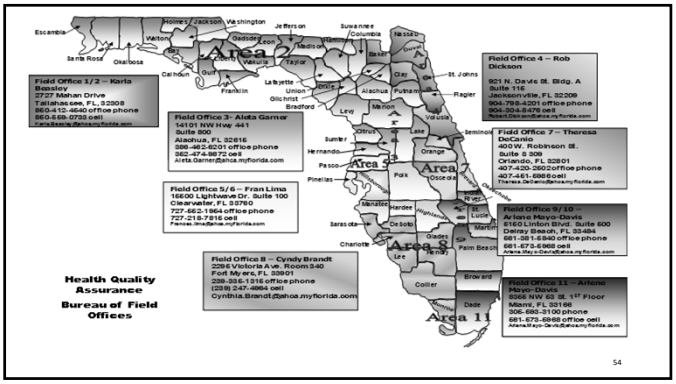

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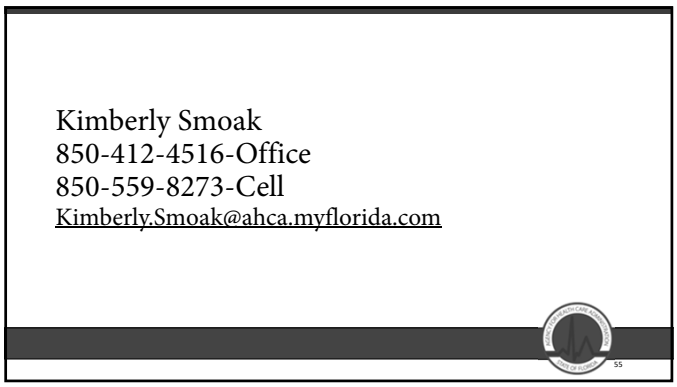
Kimberly Smoak
850-412-4516-Office
850-559-8273-Cell
Kimberly.Smoak@ahca.myflorida.com
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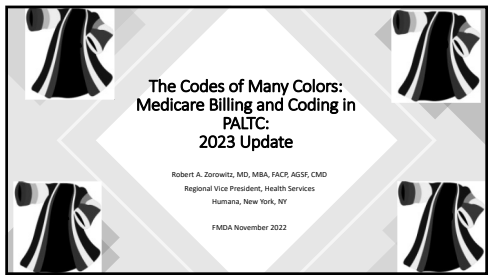
The Codes of Many Colors:
Medicare Billing and Coding in PALTC:
2023 Update
Robert A. Zorowitz, MD, MBA, FACP, AGSF, CMD
Regional Vice President, Health Services
Humana, New York, NY
FMDA November 2022

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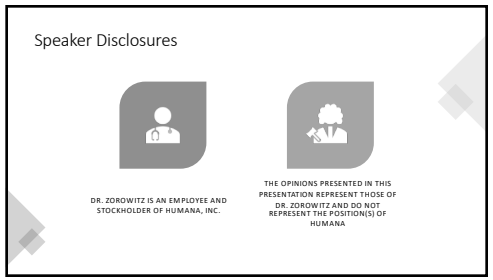
Speaker Disclosures
DR. ZOROWITZ IS AN EMPLOYEE AND STOCKHOLDER OF HUMANA, INC.
THE OPINIONS PRESENTED IN THIS PRESENTATION REPRESENT THOSE OF DR. ZOROWITZ AND DO NOT REPRESENT THE POSITION(S) OF HUMANA

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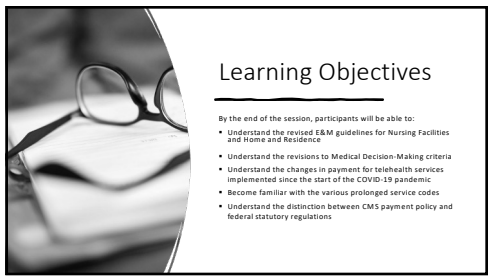
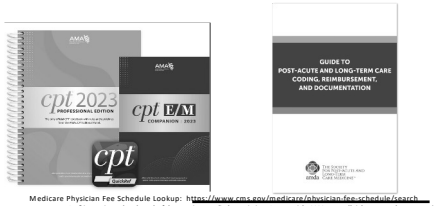

Learning Objectives
By the end of the session, participants will be able to:
Understand the revised E&M guidelines for Nursing Facilities and Home and Residence
Understand the revisions to Medical Decision-Making criteria
Understand the changes in payment for telehealth services implemented since the start of the COVID-19 pandemic
Become familiar with the various prolonged service codes
Understand the distinction between CMS payment policy and federal statutory regulations

3

Tip for Accurate Coding: Know Your Codes and Reimbursement!



Medicare Physician Fee Schedule Lookup: https://www.cms.gov/medicare/physician-fee-schedule/search

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The 2023 CPT Evaluation and Management (E&M) Revisions

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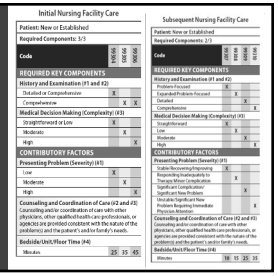
Nursing Facility Care 2022



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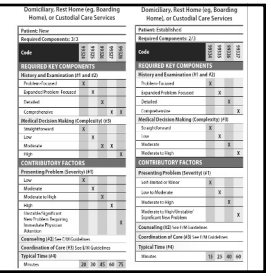
Assisted Living Facility Care 2022



Domiciliary, Rest Home (eg, Boarding Home), or Custodial Care Services

Patient: New

Required Components: 2/3

Code	99324	99325	99326	99327	99328
REQUIRED KEY COMPONENTS					
History and Examination (H and A2)					
Problem-Focused	X				
Expanded Problem-Focused		X			
Detailed			X		X
Comprehensive				X	
Medical Decision Making (Complexity) (H)					
Straightforward	X				
Low		X			
Moderate			X	X	
High					X
CONTRIBUTORY FACTORS					
Presenting Problem (Severity) (H)					
Low	X				
Moderate		X			
Moderate to High			X		
High				X	
Unstable/Significant New Problem Requiring Immediate Physician Attention					X
Counseling (A2) See CMS Guidelines					
Coordination of Care (H) See CMS Guidelines					
Typical Time (H)					
Minutes	20	30	45	60	75

Domiciliary, Rest Home (eg, Boarding Home), or Custodial Care Services

Patient: Established

Required Components: 2/3

Code	99334	99335	99336	99337
REQUIRED KEY COMPONENTS				
History and Examination (H and A2)				
Problem-Focused	X			
Expanded Problem-Focused		X		
Detailed			X	
Comprehensive				X
Medical Decision Making (Complexity) (H)				
Straightforward	X			
Low		X		
Moderate			X	
Moderate to High				X
CONTRIBUTORY FACTORS				
Presenting Problem (Severity) (H)				
Self-limited or Minor	X			
Low to Moderate		X		
Moderate to High			X	
Moderate to High/Unstable/ Significant New Problem				X
Counseling (A2) See H and A Guidelines				
Coordination of Care (A2) See H and A Guidelines				
Typical Time (H)				
Minutes	15	25	40	60

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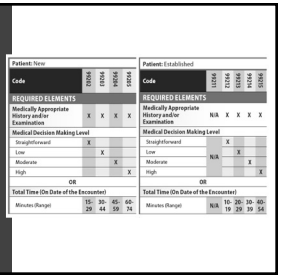
Office/Outpatient 2022



Patient: New

Code	99202	99203	99204	99205
REQUIRED ELEMENTS				
Medically Appropriate History and/or Examination	X	X	X	X
Medical Decision Making Level				
Straightforward	X			
Low		X		
Moderate			X	
High				X
OR				
Total Time (On Date of the Encounter)				
Minutes (Range)	15-29	30-44	45-59	60-74

Patient: Established

Code	99211	99212	99213	99214	99215
REQUIRED ELEMENTS					
Medically Appropriate History and/or Examination	N/A	X	X	X	X
Medical Decision Making Level					
Straightforward	N/A	X			
Low			X		
Moderate				X	
High					X
OR					
Total Time (On Date of the Encounter)					
Minutes (Range)	N/A	10-19	20-29	30-39	40-54

8

Guiding Principles: E/M Workgroup & CPT® Editorial Panel

The CPT/RUC Workgroup on E/M expanded the scope of their work to include the other E/M families of services to reduce the burden of having two separate sets of E/M Guidelines in the CPT code set.

The Workgroup continued their work by following their existing **guiding principles** related to the group's ongoing work product:

- To decrease administrative burden of documentation and coding, and align CPT and CMS whenever possible
- To decrease the need for audits
- To decrease unnecessary documentation in the medical record that is not needed for patient care
- To ensure that payment for E/M is resource-based and that there is no direct goal for payment redistribution between specialties

AMA 175 YEARS | Physicians' powerful ally in patient care

From 8/9/2022 Webinar, Prestegaard L, Levy, B, Hollmann R. "E/M 2023: Advancing Landmark Revisions Across More Settings of Care," downloaded on 10/2/2022 from https://www.ama-assn.org/practice-management/cpt/cpt-evaluation-and-management

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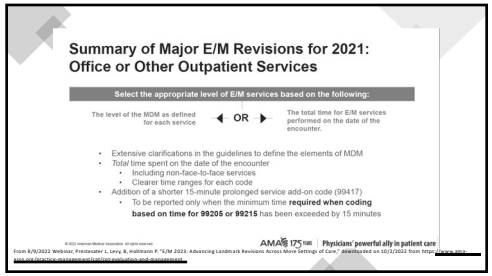
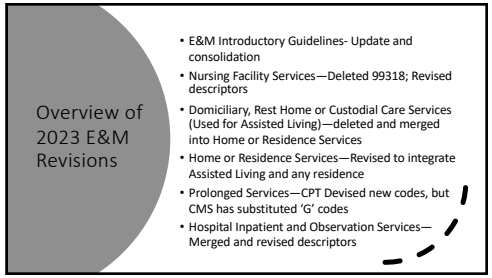
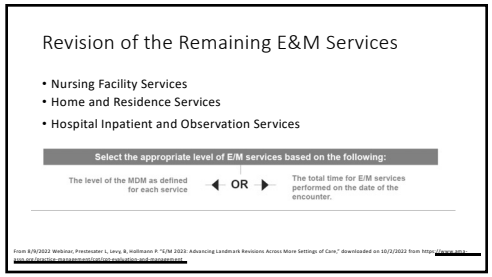

Summary of Major E/M Revisions for 2021:
Office or Other Outpatient Services
Select the appropriate level of E/M services based on the following:
The level of the MDM as defined for each service
OR
The total time for E/M services performed on the date of the encounter.
Extensive clarifications in the guidelines to define the elements of MDM
Total time spent on the date of the encounter
Including non-face-to-face services
Clearer time ranges for each code
Addition of a shorter 15-minute prolonged service add-on code (99417)
To be reported only when the minimum time required when coding based on time for 99205 or 99215 has been exceeded by 15 minutes
AMA 175 | Physicians' powerful ally in patient care
From 8/9/2022 Webinar, Prestcester L, Levy, B, Hollmann P, "E/M 2023: Advancing Landmark Revisions Across More Settings of Care," downloaded on 10/2/2022 from https://www.ama-assn.org/practice-management/cpt/cpt-evaluation-and-management

10


Overview of 2023 E&M Revisions
E&M Introductory Guidelines- Update and consolidation
Nursing Facility Services—Deleted 99318; Revised descriptors
Domiciliary, Rest Home or Custodial Care Services (Used for Assisted Living)—deleted and merged into Home or Residence Services
Home or Residence Services—Revised to integrate Assisted Living and any residence
Prolonged Services—CPT Devised new codes, but CMS has substituted 'G' codes
Hospital Inpatient and Observation Services—Merged and revised descriptors

11


Revision of the Remaining E&M Services
Nursing Facility Services
Home and Residence Services
Hospital Inpatient and Observation Services
Select the appropriate level of E/M services based on the following:
The level of the MDM as defined for each service
OR
The total time for E/M services performed on the date of the encounter.
From 8/9/2022 Webinar, Prestcester L, Levy, B, Hollmann P, "E/M 2023: Advancing Landmark Revisions Across More Settings of Care," downloaded on 10/2/2022 from https://www.ama-assn.org/practice-management/cpt/cpt-evaluation-and-management

12

Tip for Accurate Coding
Know Revised Nursing Facility E&M

2022

99308 Subsequent nursing facility care, per day, for the evaluation and management of a patient, which requires at least 2 of these 3 key components:

- **An expanded problem focused interval history;**
- **An expanded problem focused examination;**
- **Medical decision making of low complexity.**

Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.

Usually, the patient is responding inadequately to therapy or has developed a minor complication. Typically, 15 minutes are spent at the bedside and on the patient's facility floor or unit.

2023

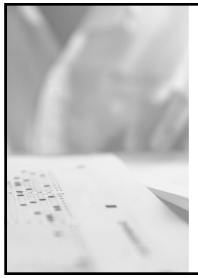
99308 Subsequent nursing facility care, per day, for the evaluation and management of a patient, which requires a medically appropriate history and/or examination and low level of medical decision making

When using total time on the date of the encounter for code selection, 15 minutes must be met or exceeded.

Note that when using time for code selection, it is the total time spent, not the "typical time" indicated in prior editions, that determines code selection

13

13



History and Physical Examination

- Must be performed and documented if clinically appropriate
- No longer need to document gratuitous reviews of systems for the purpose of submission of claims unless performed or reviewed when clinically appropriate
- The extent of history and physical examination is no longer an element in the selection of the level of E&M service codes

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Time

- Total time on the date of the encounter, NOT "Typical time" as in 2022 code descriptors
- To select the level based on time, the indicated total time must be met or exceeded
- Includes both face-to-face time with the patient and/or family/caregiver and non-face-to-face time
- Includes time regardless of location
- Since only a single E&M Hospital/Observation service may be reported per day, total time = cumulative time of all encounters that day
- Do not count time spent on:
  - Travel
  - Teaching that is general and not limited to discussion that is required for the management of a specific patient
  - The performance of other services that are reported separately

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Medical Decision Making in 2022

Office/Outpatient Codes	All Other E&M Codes (including Hospital/Inpatient, Obs, Nursing Facility, etc.)
Number and Complexity of Problems Addressed at the Encounter	Number of Diagnoses or Management Options
Amount and/or complexity of Data to be Reviewed and Analyzed	Amount and/or Complexity of Data to be Reviewed
Risk of Complications and/or Morbidity or Mortality of Patient Management	Risk of Complications and/or Morbidity or Mortality

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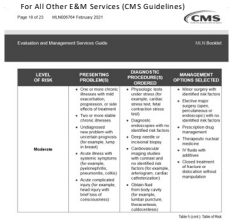
Medical Decision-Making Tables in 2022

For Office/Outpatient (CPT Manual)

For All Other E&M Services (CMS Guidelines)



LEVEL OF RISK	PRESENTING PROBLEM(S)	DIAGNOSTIC PROCEDURE(S) ORDERED	MANAGEMENT OPTIONS SELECTED
Moderate	• One or more chronic illnesses with mild exacerbation, progression, or side effects of treatment • Two or more stable chronic illnesses • Undiagnosed new problem with uncertain prognosis (for example, lump in breast) • Acute illness with systemic symptoms (for example, pyelonephritis, colitis) • Acute complicated injury (for example, head injury with brief loss of consciousness)	• Physiologic tests under stress (for example, cardiac stress test, fetal contraction stress test) • Diagnostic endoscopies with no identified risk factors • Deep needle or incisional biopsy • Cardiovascular imaging studies with contrast and no identified risk factors (for example, arteriogram, cardiac catheterization) • Obtain fluid from body cavity (for example, lumbar puncture, thoracentesis, culdocentesis)	• Minor surgery with identified risk factors • Elective major surgery (open, percutaneous or endoscopic) with no identified risk factors • Prescription drug management • Therapeutic nuclear medicine • IV fluids with additives • Closed treatment of fracture or dislocation without manipulation

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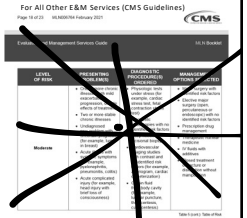
Medical Decision-Making Tables in 2023?

For Office/Outpatient (CPT Manual)

For All Other E&M Services (CMS Guidelines)



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Medical Decision Making 2023

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

- Level of Medical Decision-Making is determined by the highest level in 2 of the three elements
- The details and examples of Medical Decision-Making are described entirely in the 2023 CPT Manual

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Why learn MDM when I can use time?

HCPCS Code	Short Description	Total Time in Min.	Medical Decision-Making Level	Price (2022)
99304	Nursing facility care init	25	Straightforward or Low	$88.94
99305	Nursing facility care init	35	Moderate	$128.39
99306	Nursing facility care init	45	High	$164.73
99307	Nursing fac care subseq	10	Straightforward	$43.60
99308	Nursing fac care subseq	15	Low	$68.87
99309	Nursing fac care subseq	30	Moderate	$90.67
99310	Nursing fac care subseq	45	High	$133.58

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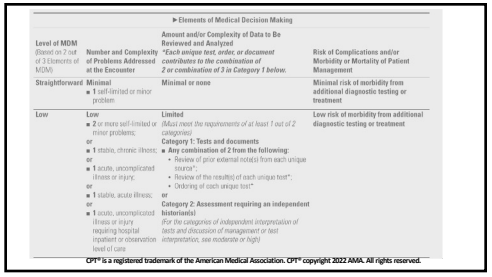

► Elements of Medical Decision Making

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to Be Reviewed and Analyzed *(Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below.*	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	**Minimal** ■ 1 self-limited or minor problem	**Minimal or none**	**Minimal risk of morbidity from additional diagnostic testing or treatment**
Low	**Low** ■ 2 or more self-limited or minor problems; or ■ 1 stable, chronic illness; or ■ 1 acute, uncomplicated illness or injury; or ■ 1 stable, acute illness; or ■ 1 acute, uncomplicated illness or injury requiring hospital inpatient or observation level of care	**Limited** *(Must meet the requirements of at least 1 out of 2 categories)* **Category 1: Tests and documents** ■ **Any combination of 2 from the following:** • Review of prior external note(s) from each unique source*; • Review of the result(s) of each unique test*; • Ordering of each unique test* **or** **Category 2: Assessment requiring an independent historian(s)** *(For the categories of independent interpretation of tests and discussion of management or test interpretation, see moderate or high)*	**Low risk of morbidity from additional diagnostic testing or treatment**

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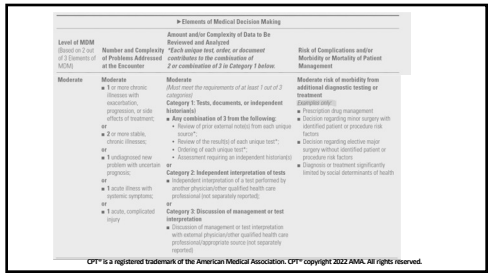

► Elements of Medical Decision Making

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to Be Reviewed and Analyzed *(Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below:*	Risk of Complications and/or Morbidity or Mortality of Patient Management
Moderate	**Moderate** ■ **1** or more chronic illnesses with exacerbation, progression, or side effects of treatment; **or** ■ **2** or more stable, chronic illnesses; **or** ■ **1** undiagnosed new problem with uncertain prognosis; **or** ■ **1** acute illness with systemic symptoms; **or** ■ **1** acute, complicated injury	**Moderate** *(Must meet the requirements of at least 1 out of 3 categories)* **Category 1: Tests, documents, or independent historian(s)** ■ **Any combination of 3 from the following:** • Review of prior external note(s) from each unique source*; • Review of the result(s) of each unique test*; • Ordering of each unique test*; • Assessment requiring an independent historian(s) **or** **Category 2: Independent interpretation of tests** ■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported); **or** **Category 3: Discussion of management or test interpretation** ■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)	**Moderate risk of morbidity from additional diagnostic testing or treatment** *Examples only:* ■ Prescription drug management ■ Decision regarding minor surgery with identified patient or procedure risk factors ■ Decision regarding elective major surgery without identified patient or procedure risk factors ■ Diagnosis or treatment significantly limited by social determinants of health

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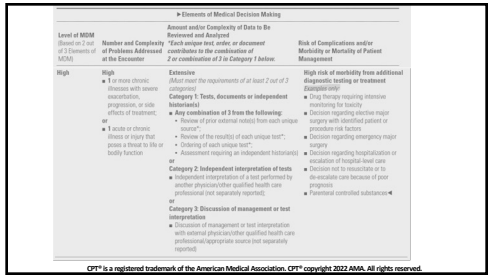

► Elements of Medical Decision Making

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to Be Reviewed and Analyzed *(Each unique test, order, or document contributes to the combination of 2 or combination of 3 in Category 1 below:*	Risk of Complications and/or Morbidity or Mortality of Patient Management
High	**High** ■ **1** or more chronic illnesses with severe exacerbation, progression, or side effects of treatment; **or** ■ **1** acute or chronic illness or injury that poses a threat to life or bodily function	**Extensive** *(Must meet the requirements of at least 2 out of 3 categories)* **Category 1: Tests, documents or independent historian(s)** ■ **Any combination of 3 from the following:** • Review of prior external note(s) from each unique source*; • Review of the result(s) of each unique test*; • Ordering of each unique test*; • Assessment requiring an independent historian(s) **or** **Category 2: Independent interpretation of tests** ■ Independent interpretation of a test performed by another physician/other qualified health care professional (not separately reported); **or** **Category 3: Discussion of management or test interpretation** ■ Discussion of management or test interpretation with external physician/other qualified health care professional/appropriate source (not separately reported)	**High risk of morbidity from additional diagnostic testing or treatment** *Examples only:* ■ Drug therapy requiring intensive monitoring for toxicity ■ Decision regarding elective major surgery with identified patient or procedure risk factors ■ Decision regarding emergency major surgery ■ Decision regarding hospitalization or escalation of hospital-level care ■ Decision not to resuscitate or to de-escalate care because of poor prognosis ■ Parenteral controlled substances◄

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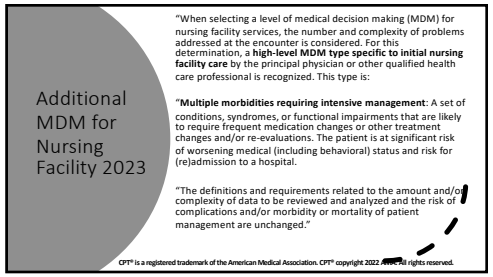

Additional MDM for Nursing Facility 2023

"When selecting a level of medical decision making (MDM) for nursing facility services, the number and complexity of problems addressed at the encounter is considered. For this determination, a **high-level MDM type specific to initial nursing facility care** by the principal physician or other qualified health care professional is recognized. This type is:

"**Multiple morbidities requiring intensive management**: A set of conditions, syndromes, or functional impairments that are likely to require frequent medication changes or other treatment changes and/or re-evaluations. The patient is at significant risk of worsening medical (including behavioral) status and risk for (re)admission to a hospital.

"The definitions and requirements related to the amount and/or complexity of data to be reviewed and analyzed and the risk of complications and/or morbidity or mortality of patient management are unchanged."

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Nursing Facility Care 2023

Initial Nursing Facility Care

Patient: New or Established			
Code	99304	99305	99306
REQUIRED ELEMENTS			
Medically Appropriate History and/or Examination	X	X	X
Medical Decision Making Level			
Straightforward or Low	X		
Moderate		X	
High			X
OR			
Total Time (On Date of the Encounter)			
Minutes	25	35	45

Subsequent Nursing Facility Care

Patient: New or Established				
Code	99307	99308	99309	99310
REQUIRED ELEMENTS				
Medically Appropriate History and/or Examination	X	X	X	X
Medical Decision Making Level				
Straightforward	X			
Low		X		
Moderate			X	
High				X
OR				
Total Time (On Date of the Encounter)				
Minutes	10	15	30	45

Level of MDM (Based on 2 out of 3 Elements of MDM)	Number and Complexity of Problems Addressed at the Encounter	Amount and/or Complexity of Data to be Reviewed and Analyzed	Risk of Complications and/or Morbidity or Mortality of Patient Management
Straightforward	Minimal	Minimal or None	Minimal
Low	Low	Limited	Low
Moderate	Moderate	Moderate	Moderate
High	High	Extensive	High

NOTE: As of 2023, 99318 Annual Nursing Facility Assessment is deleted.

25

What about Assisted Living Facilities?

Domiciliary, Rest Home (eg, Boarding Home), or Custodial Care Services

New Patient

▶(99324, 99325, 99326, 99327, 99328 have been deleted. For domiciliary, rest home [eg, boarding home], or custodial care services, new patient, see home or residence services codes 99341, 99342, 99344, 99345)◀

Established Patient

▶(99334, 99335, 99336, 99337 have been deleted. For domiciliary, rest home [eg, boarding home], or custodial care services, established patient, see home or residence services codes 99347, 99348, 99349, 99350)◀

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Home ***and*** Assisted Living Facility Care 2023

"The following codes are used to report evaluation and management services provided in a home or residence. Home may be defined as a private residence, temporary lodging, or short-term accommodation (eg, hotel, campground, hostel, or cruise ship).

"**These codes are also used when the residence is an assisted living facility,** group home (that is not licensed as an intermediate care facility for individuals with intellectual disabilities), custodial care facility, or residential substance abuse treatment facility."

Home or Residence Services

Patient: New				
Code	99341	99342	99344	99345
REQUIRED ELEMENTS				
Medically Appropriate History and/or Examination	X	X	X	X
Medical Decision Making Level				
Straightforward	X			
Low		X		
Moderate			X	
High				X
OR				
Total Time (On Date of the Encounter)				
Minutes	15	30	60	75

Home or Residence Services

Patient: Established				
Code	99347	99348	99349	99350
REQUIRED ELEMENTS				
Medically Appropriate History and/or Examination	X	X	X	X
Medical Decision Making Level				
Straightforward	X			
Low		X		
Moderate			X	
High				X
OR				
Total Time (On Date of the Encounter)				
Minutes	20	30	60	60

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Prolonged Services CPT Changes for 2023

- 99354-99357 Prolonged Service with Direct Patient Contact deleted
- 99417 Remains for Outpatient/Office Services (but not recognized by CMS, which requires G2212)
  - May be used with Home or Residence Services
  - May be used with Cognitive Assessment and Care Plan Services
  - May be used with Office Consultation Services
- 99418 Prolonged Service with or without Direct Patient Contact in Inpatient Setting—NEW!
- 99358-99359 Non-face-to-face Prolonged Service revised to be consistent with CMS payment rules

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However, hot off the press: The CY 2023 Physician Fee Schedule Final Rule

- Finalized the proposal to create 3 "G" codes for prolonged services
  - G0316 Prolonged Hospital or Observation Services
  - G0317 Prolonged Nursing Home Services
  - G0318 Prolonged Home or Residence Services
- Finalized the proposal to convert Non-face-to-face prolonged service codes 99358-99359 to status "I," i.e. "Not valid for Medicare purposes" or "Ineligible."
- Clarified the time horizon for nursing home codes
- Established the use of G0317 for Prolonged Nursing Home Services

https://www.cms.gov/files/document/cy2023-physician-fee-schedule-final-rule-cms-1770f.pdf

30

OK—Follow me on this…

- When the nursing facility visit codes were resurveyed by the RUC, the survey time included the day before, the day of, and up to and including 3 days post the date of service
- Therefore, CMS concluded that reporting 99358-99359 on any of those days would essentially be duplicative reporting
- Thus, they finalized the proposal to convert to "I" status*:
  - 99358-99359 Prolonged evaluation and management service before and/or after direct patient care
  - 99418 Prolonged inpatient or observation evaluation and management service(s) time with or without direct patient contact
- Ultimately finalizing G0317

*I="ineligible" or "no longer recognized by CMS"

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G0317

- ***G0317*** *Prolonged* ***nursing facility*** *evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service);*
- *each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact*
  - *(list separately in addition to CPT codes 99306, 99310 for nursing facility evaluation and management services).*
  - *(Do not report G0317 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 99418).*
  - *(Do not report G0317 for any time unit less than 15 minutes)*

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How to Use G0317

- May only be used if reporting the following nursing facility codes, using ***time***:
  - 99306 Initial nursing facility care, per day, 45 minutes must be met or exceeded
  - 99310 Subsequent nursing facility care, per day, 45 minutes must be met or exceeded
- May be reported for prolonged time within the surveyed time frame:
  - One day before the E&M service
  - On the day of the E&M service
  - Up to 3 days after the E&M service
- May be reported only when the prolonged time equals or exceeds 15 minutes beyond the maximum time specified by the codes
- May be reported for each 15-minute increment beyond the maximum time specified in the codes; there is no frequency limitation
- Includes both face-to-face and non-face-to-face time

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G0318

- G0318 *Prolonged **home or residence** evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service);*
- *each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact*
  - *(list separately in addition to CPT codes 99345, 99350 for home or residence evaluation and management services).*
  - *(Do not report G0318 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 99417).*
  - *(Do not report G0318 for any time unit less than 15 minutes).*

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How to Use G0318

- Would be reportable when the total time for the **home or residence** visit (specified in the time file) is exceeded by 15 or more minutes
- Reportable as add on code to:
  - 99345 Home or residence visit for the evaluation of a new patient, 75 minutes must be met or exceeded
  - 99350 Home or residence visit for the evaluation of an established patient, 60 minutes must be met or exceeded
- May be reported for prolonged service(s) spent during:
  - The pre-service 3-days before the E&M visit
  - During the intraservice time on the day of the visit
  - The post-service time up to 7 days after the day of the visit

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99418 Prolonged inpatient or observation services (replaces deleted codes 99354-99357 in 2023)

99418 Prolonged inpatient or observation evaluation and management service(s) time with or without direct patient contact beyond the required time of the primary service when the primary service level has been selected using total time, each 15 minutes of total time (List separately in addition to the code of the inpatient and observation **Evaluation and Management** service)

CPT Changes: An Insider's View 2023

►(Use 99418 in conjunction with 99223, 99233, 99236, 99255, 99306, 99310) ◄

►(Do not report 99418 on the same date of service as 90833, 90836, 90838, 99358, 99359) ◄

►(Do not report 99418 for any time unit less than 15 minutes) ◄

Note: To be used for both Hospital and Nursing Facility Services

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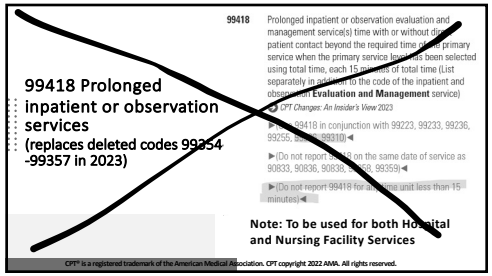

37

G0316

- G0316 *Prolonged **hospital inpatient or observation care** evaluation and management service(s) beyond the total time for the primary service (when the primary service has been selected using time on the date of the primary service);*
- *each additional 15 minutes by the physician or qualified healthcare professional, with or without direct patient contact*
- *(list separately in addition to CPT codes 99223, 99233, and 99236 for hospital inpatient or observation care evaluation and management services).*
- *(Do not report G0316 on the same date of service as other prolonged services for evaluation and management 99358, 99359, 993X0).*
- *(Do not report G0316 for any time unit less than 15 minutes)*

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Time Thresholds to Report Prolonged E&M Services

Primary E/M Service	Prolonged Code*	Service Time (as per code descriptor)	Time Threshold to Report Prolonged	Count Physician/NPP time spent within this time period (surveyed timeframe)
Initial NF Visit (99306)	G0317	45 minutes	95 minutes	1 day before visit + date of visit + 3 days after
Subsequent NF Visit (99310)	G0317	45 minutes	85 minutes	1 day before visit + date of visit + 3 days after
NF Discharge Day Management	n/a	n/a	n/a	n/a
Home/Residence Visit New Pt (99345)	G0318	75 minutes	140 minutes	3 days before visit + date of visit + 7 days after
Home/Residence Visit Estab. Pt (99350)	G0318	60 minutes	110 minutes	3 days before visit + date of visit + 7 days after

* Time must be used to select visit level. Prolonged service time can be reported when furnished on any date within the primary visit's surveyed timeframe and includes time with or without direct patient contact by the physician or NPP. Consistent with CPT's approach, we do not assign a frequency limitation.

https://www.cms.gov/files/document/cy2023-physician-fee-schedule-final-rule-cms-1770f.pdf

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Prolonged Services: RVUs

HCPCS	Descriptor	CY 2022 Work RVU	Final CY 2023 Work RVU
G3016	Prolonged hospital inpatient or observation care	NEW	0.61
G0317	Prolonged nursing facility evaluation and management service(s)	NEW	0.61
G0318	Prolonged home or residence evaluation and management service(s)	NEW	0.61

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Public Health Emergency Waivers

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Public Health Emergency Waivers

- HHS Secretary Xavier Berrera renewed the Public Health Emergency (PHE) declaration on October 13, 2022
- 60-day notice to be given if the PHE is ended
- In July, the House passed Advancing Telehealth Beyond COVID-19 Act of 2022 (HR 4040)
  - Extends telehealth waivers through the end of 2024
  - Has not yet passed the Senate

https://www.congress.gov/bill/117th-congress/house-bill/4040
https://www.phe.gov/emergency/news/healthactions/phe/Pages/COVID-13Oct21.aspx

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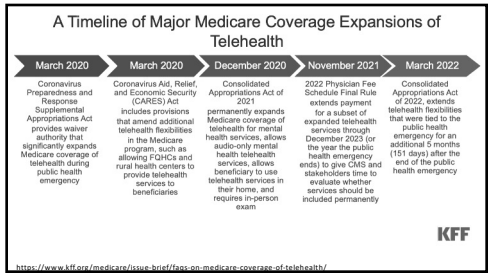

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Eligible Telehealth Services

- Nursing facility visits, New and Established, and nursing facility discharge day management (CPT codes 99304-99310; CPT codes 99315-99316)
- Domiciliary, Rest Home, or Custodial Care services, New and Established patients (CPT codes 99324- 99328; CPT codes 99334-99337)—Will be deleted in 2023
- Home Visits, New and Established Patient, All levels (CPT codes 99341- 99345; CPT codes 99347- 99350)—Includes Assisted Living Facilities as of 1/1/2023
- Transitional Care Management Services (99495-99496)—For the F2F visit
- Annual Wellness Visit (PPPS) (G0438-G0439)- May be done by audio-only
- New and Established Office/Outpatient Services (99201-99215)
- Advance Care Planning (99497-99498)-May be done by audio-only
- Care Planning for Patients with Cognitive Impairment (CPT code 99483)

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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List of Medicare Telehealth Services Updated November 1, 2022

Code	Short Descriptor	Status
99304	Nursing facility care init*	Temporary Addition for the PHE; Expires with PHE plus 151 days
99305	Nursing facility care init*	Temporary Addition for the PHE; Expires with PHE plus 151 days
99306	Nursing facility care init*	Temporary Addition for the PHE; Expires with PHE plus 151 days
99307	Nursing fac care subseq*	
99308	Nursing fac care subseq*	
99309	Nursing fac care subseq*	
99310	Nursing fac care subseq*	
99315	Nursing fac discharge day*	Available Through December 31, 2023
99316	Nursing fac discharge day*	Available Through December 31, 2023

*Since January 1, 2021, the limit for nursing facility services is one telehealth visit every 14 days
NOTE: subsequent nursing facility care services reported for a Federally-mandated periodic visit under 42 CFR 483.40(c) may not be furnished through telehealth

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List of Medicare Telehealth Services Updated November 1, 2022

Code	Short Descriptor	Status
99341	Home visit new patient	Temporary Addition for the PHE; Expires with PHE plus 151 days
99342	Home visit new patient	Temporary Addition for the PHE; Expires with PHE plus 151 days
99344	Home visit new patient	Temporary Addition for the PHE; Expires with PHE plus 151 days
99345	Home visit new patient	Temporary Addition for the PHE; Expires with PHE plus 151 days
99347	Home visit est patient	
99348	Home visit est patient	
99349	Home visit est patient	Available Through December 31, 2023
99350	Home visit est patient	Available Through December 31, 2023

NOTE: 99343 Home visit new patient has been deleted for 2023

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Services Finalized for Permanent Addition to the Medicare Telehealth Services List on a Category 1 Basis, effective January 1, 2023

HCPCS Code	Short Descriptor
G0316	Prolonged inpatient or observation services by physician or other qualified health professional (QHP)
G0317	Prolonged nursing facility service by physician or other QHP
G0318	Prolonged home or residence services by physician or other QHP
G3002	Chronic pain treatment monthly bundle, first 30 minutes per calendar month
G3003	Additional 15 minutes pain management

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Place of Service (POS) Code - Telehealth

- Telehealth services *usually* submitted under POS 02
- Under the interim guidance telehealth services that would have been previously provided in person should be submitted under the same POS as if they were in person, therefore 31 SNF or 32 NF
- Practitioners should submit the E/M code that best describes the nature of the service they are providing
- Medicare in April 6, 2020 rule: Use Modifier -95 to identify as telehealth services

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Telehealth Originating Site Facility Fee

- Nursing facilities can submit a claim for the Originating Site Facility Fee
- Reported under HCPCS code Q3014
- Bill their A/B/MAC (A) for the originating site facility fee using TOB 22X or 23X
- For Part A SNF patients, submit on 22X TOB
- All SNFs use revenue code 078X and must submit on a separate line from all other services
- Fee ~ $20@

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Telephone Services (2022 Prices)

HCPCS Code	Short Description	Non-Facility Price	Facility Price	Work RVU
99441	Phone e/m phys/qhp 5-10 min	$56.75	$35.99	0.70
99442	Phone e/m phys/qhp 11-20 min	$91.71	$67.14	1.30
99443	Phone e/m phys/qhp 21-30 min	$129.77	$98.97	1.92
99213	Office O/P est low 20-29 min	$92.05	$67.48	2.30
99308	Nursing fac care subseq	$68.87	$68.87	1.16

CY=Calendar year; F=Facility; NF=Non-facility

Note: During the Public Health Emergency, CMS has equated the Telephone E/M services to the analogous **Office/Outpatient Services**

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Services to be Removed from the Medicare Telehealth Services List After 151 Days Following End of the PHE

HCPCS/CPT	Short descriptor
99218	Initial observation care
99219	Initial observation care
99220	Initial observation care
99221	Initial hospital care
99222	Initial hospital care
99223	Initial hospital care
99234	Observ/hosp same date
99235	Observ/hosp same date
99236	Observ/hosp same date
99304	Nursing facility care init
99305	Nursing facility care init
99306	Nursing facility care init

HCPCS/CPT	Short descriptor
99324	Domicil/r-home visit new pat (deleted from the PFS for CY 2023)
99325	Domicil/r-home visit new pat (deleted from the PFS for CY 2023)
99326	Domicil/r-home visit new pat (deleted from the PFS for CY 2023)
99327	Domicil/r-home visit new pat (deleted from the PFS for CY 2023)
99328	Domicil/r-home visit new pat (deleted from the PFS for CY 2023)
99341	Home visit new patient
99342	Home visit new patient
99343	Home visit new patient (deleted from the PFS for CY 2023)
99344	Home visit new patient
99345	Home visit new patient
99441	Phone e/m phys/qhp 5-10 min
99442	Phone e/m phys/qhp 11-20 min
99443	Phone e/m phys/qhp 21-30 min

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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#1 Tip for Accurate Coding
Know your codes and reimbursement!

Medicare Physician Fee Schedule Lookup: https://www.cms.gov/medicare/physician-fee-schedule/search

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What Visits Does CMS Reimburse in SNF/NF?

- Payment is made under the physician fee schedule by Medicare Part B for federally mandated visits. Following the initial federally mandated visit by the physician or qualified NPP where permitted, payment shall be made for federally mandated visits that monitor and evaluate residents at least once every 30 days for the first 90 days after admission and at least once every 60 days thereafter.
- Subsequent Nursing Facility Care, per day, (99307 - 99310) shall be used to report federally mandated physician E/M visits and medically necessary E/M visits.
- E/M visits, prior to and after the initial federally mandated physician visit, that are reasonable and medically necessary to meet the medical needs of the individual patient (unrelated to any State requirement or administrative purpose) are payable under Medicare Part B.
- Medicare Part B payment policy does not pay for additional E/M visits that may be required by State law for a facility admission or for other additional visits to satisfy facility or other administrative purposes.

–Medicare Claims Processing Manual, Chapter 12, Section 30.6.13B

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What is a medically necessary visit?

- "Medically necessary E/M visits for the diagnosis or treatment of an illness or injury or to improve the functioning of a malformed body member are payable under the physician fee schedule under Medicare Part B."
- "Services or supplies that: are proper and needed for the diagnosis or treatment of your medical condition, are provided for the diagnosis, direct care, and treatment of your medical condition, meet the standards of good medical practice in the local area, and aren't mainly for the convenience of you or your doctor." —CMS at https://www.cms.gov/apps/glossary/search.asp?Term=medically+necessary&Language=English&SubmitTerm5rch=Search
- "Medical necessity of a service is the overarching criterion for payment in addition to the individual requirements of a CPT code. It would not be medically necessary or appropriate to bill a higher level of evaluation and management service when a lower level of service is warranted. The volume of documentation should not be the primary influence upon which a specific level of service is billed. Documentation should support the level of service reported."

Medicare Claims Processing Manual, Chapter 12, Physicians/Non-physician Practitioners

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In other words

- The visit must be medically necessary AND
- The level of service reported must be medically necessary
- THEREFORE: Documentation must support both the medical necessity of the visit itself AND the level of service being reported

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"Regulatory" Physician Visits: Frequency

F712
(Rev. 173, Issued: 11-22-17, Effective: 11-28-17, Implementation: 11-28-17)

§483.30(c) Frequency of physician visits

- **§483.30(c)(1) The residents must be seen by a physician at least once every 30 days for the first 90 days after admission, and at least once every 60 thereafter.**
- **§483.30(c)(2) A physician visit is considered timely if it occurs not later than 10 days after the date the visit was required.**
- **§483.30(c)(3) Except as provided in paragraphs (c)(4) and (f) of this section, all required physician visits must be made by the physician personally.**
- **§483.30(c)(4) At the option of the physician, required visits in SNFs, after the initial visit, may alternate between personal visits by the physician and visits by a physician assistant, nurse practitioner or clinical nurse specialist in accordance with paragraph (e) of this section.**

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"Regulatory" Physician Visits: Contents

DEFINITIONS §483.30(c) Must be seen, for purposes of the visits required by §483.30(c)(1), means that the physician or NPP must make actual face-to-face contact with the resident, and at the same physical location, not via a telehealth arrangement. There is no requirement for this type of contact at the time of admission, since the decision to admit an individual to a nursing facility (whether from a hospital or from the individual's own residence) generally involves physician contact during the period immediately preceding the admission.

–State Operations Manual, Appendix PP—Guidance to Surveyors, page 445. Downloaded on 10/11/2022 from: https://www.cms.gov/files/document/appendix-pp-guidance-surveyor-long-term-care-facilities.pdf

IMPLICATIONS

- Though payment policy allows nursing home visits to be performed via Telehealth (payment policy), this does not apply to regulatory visits (federal regulations)
- Regulatory visits must be face-to-face
- Other visits may be performed via Telehealth, subject to the q14 day limitation

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"Regulatory" Physician Visits: Contents

F711

(Rev. 173, Issued: 11-22-17, Effective: 11-28-17, Implementation: 11-28-17)

§483.30(b) Physician Visits

The physician must—

- **§483.30(b)(1) Review the resident's total program of care, including medications and treatments, at each visit required by paragraph (c) of this section;**
- **§483.30(b)(2) Write, sign, and date progress notes at each visit; and**
- **§483.30(b)(3) Sign and date all orders with the exception of influenza and pneumococcal vaccines, which may be administered per physician-approved facility policy after an assessment for contraindications.**

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The Initial Nursing Facility Visit

- The federally mandated visits in a SNF and NF must be performed by the physician except as otherwise permitted (42 CFR 483.40 (c) (4) and (f)).
- The principal physician of record must append the modifier "-AI", (Principal Physician of Record), to the initial nursing facility care code. This modifier will identify the physician who oversees the patient's care from other physicians who may be furnishing specialty care.
- All other physicians **or qualified NPPs** who perform an initial evaluation in the NF or SNF may bill the initial nursing facility care code.
- The initial federally mandated visit is defined in S&C-04-08 (see: https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/downloads/SCLetter04-08.pdf) as the initial comprehensive visit during which the physician completes a thorough assessment, develops a plan of care, and writes or verifies admitting orders for the nursing facility resident.
- A physician or NPP may bill the most appropriate initial nursing facility care code (CPT codes 99304-99306) or subsequent nursing facility care code (CPT codes 99307-99310), even if the E/M service is provided prior to the initial federally mandated visit.
- For Survey and Certification requirements, a visit must occur no later than 30 days after admission.

Medicare Claims Processing Manual, Chapter 12, Physicians/Non-physician Practitioners

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Authority for Non-physician Practitioners to Perform Visits, Sign Orders and Sign Medicare Part A Certifications/Re-certifications when Permitted by the State

	Initial Comprehensive Visit /Orders	Other Required Visits[1]	Other Medically Necessary Visits & Orders[2]	Certification/ Recertification [3]
SNFs				
PA, NP & CNS employed by the facility	May not perform/ May not sign	May perform alternate visits	May perform and sign	May not sign
PA, NP & CNS not a facility employee	May not perform/ May not sign	May perform alternate visits	May perform and sign	May sign subject to State Requirements
NFs				
PA, NP, & CNS employed by the facility	May not perform/ May not sign	May not perform	May perform and sign	Not applicable
PA, NP, & CNS not a facility employee	May perform/ May sign[4]	May perform	May perform and sign	Not applicable

[1] NPP may provide admission orders if a physician previously approved a specific recommendation for admission to the facility prior to admission. For additional requirements on physician predetermination for admission and additional orders, see §483.30(d), F726.

[2] Other required visits are the physician visits required by §483.30(c)(1) other than the initial comprehensive visit.

[3] Medically necessary visits are independent of required visits and may be performed prior to the initial comprehensive visit.

[4] Though not part of a comprehensive determination for this section, this requirement is provided for clarification and relates specifically to coverage of a Part A Medicare stay, which can take place only in a Medicare-certified SNF.

State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities

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Discharge from SNF/NF

- Medicare Part B payment policy requires a face-to-face visit with the patient provided by the physician or the qualified NPP to meet the SNF/NF discharge day management service as defined by the CPT code.
- The E/M discharge day management visit shall be reported for the date of the actual visit by the physician or qualified NPP even if the patient is discharged from the facility on a different calendar date.
- The Discharge Day Management Service may be reported using CPT code 99315 or 99316, depending on the code requirement, for a patient who has expired, but only if the physician or qualified NPP personally performed the death pronouncement.

Medicare Claims Policy Manual, Chapter 12, Section 30.6.15

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Split or Shared Visits

30.6.18 - Split (or Shared) Visits

- ***(Rev. 11288; Issued: 03-04-22; Effective: 01-01-22; Implementation: 02-15-22)***
- ***A. Definition of Split (or Shared) Visit***
- *A split (or shared) visit is an evaluation and management (E/M) visit in the facility setting that is performed in part by both a physician and a nonphysician practitioner (NPP) who are in the same group, in accordance with applicable law and regulations such that the service could be could be billed by either the physician or NPP if furnished independently by only one of them. Payment is made to the practitioner who performs the substantive portion of the visit.*
- *Facility setting means an institutional setting in which payment for services and supplies furnished incident to a physician or practitioner's professional services is prohibited under our regulations.*

--Medicare Claims Processing Manual, Chapter 12

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Split Visits

Definition of Substantive Portion for E/M Visit Code Families

E/M Visit Code Family	2022 Definition of Substantive Portion	2023 Definition of Substantive Portion
Other Outpatient*	History, or exam, or MDM, or more than half of total time	More than half of total time
Inpatient/Observation/ Hospital/SNF	History, or exam, or MDM, or more than half of total time	More than half of total time
Emergency Department	History, or exam, or MDM, or more than half of total time	More than half of total time
Critical Care	More than half of total time	More than half of total time

Acronyms: E/M (Evaluation and Management), MDM (medical decision-making), SNF (Skilled Nursing Facility)
**Office visits are not billable as split (or shared) services.*

- ***30.6.18 - Split (or Shared) Visits***

NOTE: In the Final Rule, released on 11/1/2022, CMS finalized its proposal to postpone revision of the change to split visits for 1 year

Medicare Claims Policy Manual, Chapter 12,

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Split Visits

Reporting Prolonged Services for Split (or Shared) Visits

E/M Visit Code Family	2022 If Substantive Portion is a Key Component …	If Substantive Portion is Time…	2023 Substantive Portion Must Be Time:
Other Outpatient*	Combined time of both practitioners must meet the threshold for reporting HCPCS G2212	Combined time of both practitioners must meet the threshold for reporting HCPCS G2212	Combined time of both practitioners must meet the threshold for reporting HCPCS G2212
Inpatient/Observation/Hospital/SNF	Combined time of both practitioners must meet the threshold for reporting CPT 99354-9 (60+ minutes > typical)	Combined time of both practitioners must meet the threshold for reporting CPT 99354-9 (60+ minutes > typical)	Combined time of both practitioners must meet the threshold for reporting prolonged services
Emergency Department	N/A	N/A	N/A
Critical Care	N/A	N/A	N/A

Acronyms: E/M (Evaluation and Management), SNF (Skilled Nursing Facility)
**Office visits are not billable as split (or shared) services.*

- ***30.6.18 - Split (or Shared) Visits***

NOTE: In the Final Rule, released on 11/1/2022, CMS finalized its proposal to postpone revision of the change to split visits for 1 year

Medicare Claims Policy Manual, Chapter 12,

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Physicians in Group Practice

- Physicians in the same group practice who are in the same specialty must bill and be paid as though they were a single physician.
- If more than one evaluation and management (face-to-face) service is provided on the same day to the same patient by the same physician or more than one physician in the same specialty in the same group, only one evaluation and management service may be reported unless the evaluation and management services are for unrelated problems.
- Instead of billing separately, the physicians should select a level of service representative of the combined visits and submit the appropriate code for that level.
- Physicians in the same group practice but who are in different specialties may bill and be paid without regard to their membership in the same group.

Medicare Claims Policy Manual, Chapter 12, Section 30.6.5

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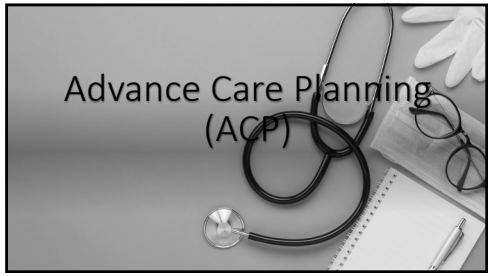

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Advance Care Planning Services

Tip for Accurate Coding:

Advance Care Planning

99497	Advance care planning including the explanation and discussion of advance directives such as standard forms (with completion of such forms, when performed), by the physician or other qualified health care professional; first 30 minutes, face-to-face with the patient, family member(s), and/or surrogate
+ 99498	each additional 30 minutes (List separately in addition to code for primary procedure) ➔ *CPT Changes: An Insider's View* 2015 ➔ *CPT Assistant* Dec 14:11

(Use 99498 in conjunction with 99497)

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Are there minimum amounts of time to bill the code

- In the absence of rules otherwise, CMS defers to CPT descriptor language
- According to CPT coding convention, the threshold for minimum time is reached after the midpoint
- For 99497, "first 30 minutes" is reached at 16 minutes
- For 99498, additional 30 minutes is reached at 30 + 16 minutes=46 minutes
- May be used for POLST-paradigm, though technically not ACP
- Bad news: recent article casts doubt on ACP
  - Morrison RS, Meier DE, Arnold RM. What's Wrong With Advance Care Planning? JAMA. 2021 Oct 8. doi: 10.1001/jama.2021.16430. Epub ahead of print. PMID: 34623373

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National Rates 2022

Code	Short Description/ CMS Posted Typical Time(s)	2022 NF MPFS National Rate	2022 F MPFS National Rate
99497	Advance care plan 30 min	$85.48	$77.86
99498	Advance care plan addl 30 min	$74.06	$73.36

MPFS=Medicare Physician Fee Schedule; F=Facility; NF=Non-facility

https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/Downloads/FAQ-Advance-Care-Planning.pdf

During COVID-19 pandemic, reimbursement will be the same if performed via telehealth or audio-only

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Tip for Accurate coding:
Incorporate the Annual Wellness Visit into your Practice!

Medicare Physical Exams Coverage

Initial Preventive Physical Exam (IPPE)	Annual Wellness Visit (AWV)	Routine Physical Exam
Review of medical and social health history and preventive services education ✓ **Covered** only once within 12 months of first Part B enrollment ✓ Patient pays nothing (if provider accepts assignment) "Welcome to Medicare Visit"	Visit to develop or update a Personalized Prevention Plan (PPP) and perform a Health Risk Assessment (HRA) ✓ **Covered** once every 12 months ✓ Patient pays nothing (if provider accepts assignment) Note: See components of AWV in the appendix	Exam performed without relationship to treatment or diagnosis for a specific illness, symptom, complaint, or injury ✗ **Not covered** by Medicare; prohibited by statute, however, the IPPE, AWV, or other Medicare benefits cover some elements of a routine physical ✗ Patient pays 100% out-of-pocket

Note: Components of Wellness Exams may not be goal-concordant with frail, elderly nursing home residents

https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/medicare-wellness-visits.html

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How do the AWV and Annual NH Assessment Differ?

COMPONENT	Annual Wellness Exam (G0438-G0439)	Annual NH Assessment (99318)
Health Risk Assessment[1]	Required	Not explicitly required[4]
Age and Gender Appropriate History	Required[2]	Required: Detailed
Physical Examination	Not required	Required: Comprehensive
Medical Decision Making	Not required	Required: Low to Mod
List of Current Providers and Suppliers	Required	Not required
Cognitive Assessment	Required	Not explicitly required[4]
Functional/Safety Assessment	Required	Not explicitly required[4]
Written Screening Schedule	Required	Not required
List of Risk Factors/Interventions	Required	Not explicitly required[4]
Advance Care Planning	At beneficiary's	At beneficiary's discretion
Measurements (Height, Weight, Body Mass Index (BMI), BP, etc.)	Required	See physical examination
Ordering of Lab/Diagnostic Procedures	Not required[3]	Not required

[1]Includes demographic data, self-assessment of health status, psychosocial risks, behavioral risks, Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)
[2]Includes family history, past medical and surgical history, medications and opioid use
[3]Additional Part B preventive services may be added as indicated
[4]May be recommended by evidence-based guidelines, eg. United States Preventive Services Task Force (USPTF) Recommendations

https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnmattersarticles/2021

99318 Evaluation and management of a patient involving an annual nursing facility assessment, which requires these 3 key components:
- A detailed interval history;
- A comprehensive examination; and
- Medical decision making that is of low to moderate complexity.

Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs.

Usually, the patient is stable, recovering, or improving. Typically, 30 minutes are spent at the bedside and on the patient's facility floor or unit.

(CPT Changes: An Insider's View 2006, 2008, 2010, 2013)
(CPT Assistant Jan 11-3, Jan 12-2, Jan 13-5, Jan 13-5, Nov 14-16

(Do not report 99318 on the same date of service as nursing facility services codes 99304-99310)

99318 Annual Nursing Facility Assessment to be deleted in 2023!

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Options for Annual Nursing Home Resident Assessment

CPT/HCPCS Code	Service	wRVU	Non-Facility Price, National (2022)	Comments
G0402	Welcome to Medicare Visit	2.6	$169.57	Officially: "Initial Preventive Physical Examination" (IPPE)
G0438	Annual Wellness Visit, Initial	2.6	$169.57	Officially: "Personalized Prevention Plan of Service," Initial visit
G0439	Annual Wellness Visit, Subsequent	1.92	$132.54	Officially: "Personalized Prevention Plan of Service", Subsequent visit
99318	Annual Nursing Facility Assessment	1.71	$95.17	Requires detailed history, comprehensive exam, low-mod MDM (Deleted for 2023)
99385-99387	Preventive Medicine Services: age 18+, New	N/A	N/A	Not reimbursed by CMS (but may be reimbursed by other payers)
99395-99397	Preventive Medicine Services: age 18+, Est.	N/A	N/A	Not Reimbursed by CMS (but may be reimbursed by other payers)

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Consultation Services

- Consultation codes are not recognized by CMS For Part B Medicare payment
- In the inpatient hospital setting and the nursing facility setting, physicians (and qualified nonphysician practitioners where permitted) may bill the most appropriate initial hospital care code (99221-99223), subsequent hospital care code (99231 and 99232), initial nursing facility care code (99304-99306), or subsequent nursing facility care code (99307-99310) that reflects the services the physician or practitioner furnished.
- The principal physician of record shall append modifier "-AI" (Principal Physician of Record), in addition to the E/M code.

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Emergency Department or Office/Outpatient Visits on Same Day As Nursing Facility Admission

Emergency department visit provided on the same day as a comprehensive nursing facility assessment are not paid. Payment for evaluation and management services on the same date provided in sites other than the nursing facility are included in the payment for initial nursing facility care when performed on the same date as the nursing facility admission.

Medicare Claims Policy Manual, Chapter 12, section 30.6.11

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What if you are asked to see a patient in the ED?

- If the patient is admitted to the hospital by the patient's personal physician, then the patient's regular physician should bill only the appropriate level of the initial hospital care (codes 99221 - 99223)
- If the ED physician, based on the advice of the patient's personal physician who came to the emergency department to see the patient, sends the patient home, then the ED physician should bill the appropriate level of emergency department service.
- The patient's personal physician should also bill the level of emergency department code that describes the service he or she provided in the emergency department.

Medicare Claims Policy Manual, Chapter 12, section 30.6.11

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Observation Services

- Payment for an initial observation care code is for all the care rendered by the ordering physician on the date the patient's observation services began.
- All other physicians who furnish consultations or additional evaluations or services while the patient is receiving hospital outpatient observation services must bill the appropriate outpatient service codes.
- For example, if an internist orders observation services and asks another physician to additionally evaluate the patient, only the internist may bill the initial and subsequent observation care codes. The other physician who evaluates the patient must bill the new or established office or other outpatient visit codes as appropriate.
- When a patient receives observation care for less than 8 hours on the same calendar date, the Initial Observation Care, from CPT code range 99218 - 99220, shall be reported by the physician. The Observation Care Discharge Service, CPT code 99217, shall not be reported for this scenario.

Medicare Claims Policy Manual, Chapter 12, Section 30.6.8

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100.1 - Payment for Physician Services in Teaching Settings Under the MPFS

Pursuant to 42 CFR 415.170, services furnished in teaching settings are paid under the physician fee schedule if the services are:

- Personally furnished by a physician who is not a resident;
- Furnished by a resident where a teaching physician was physically present during the critical or key portions of the service; or
- Certain E/M services furnished by a resident under the conditions contained in §100.01.C.

Medicare Claims Policy Manual, Chapter 12,

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100.1 - Payment for Physician Services in Teaching Settings Under the MPFS

For purposes of payment, E/M services billed by teaching physicians require that the medical records must demonstrate:

- That the teaching physician performed the service or was physically present during the key or critical portions of the service when performed by the resident; and
- The participation of the teaching physician in the management of the patient.
- The presence of the teaching physician during E/M services may be demonstrated by the notes in the medical records made by physicians, residents, or nurses.

Medicare Claims Policy Manual, Chapter 12,

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Questions?

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Appendix

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Nursing Home Codes and Telehealth Time

Code	Short Descriptor	Status
99304	Nursing facility care init	Temporary Addition for the PHE for the COVID-19 Pandemic
99305	Nursing facility care init	Temporary Addition for the PHE for the COVID-19 Pandemic
99306	Nursing facility care init	Temporary Addition for the PHE for the COVID-19 Pandemic
99307	Nursing fac care subseq	Permanent – q 14 day limit
99308	Nursing fac care subseq	Permanent – q 14 day limit
99309	Nursing fac care subseq	Permanent – q 14 day limit
99310	Nursing fac care subseq	Permanent – q 14 day limit
99315	Nursing fac discharge day	Available through Dec. 31, 2023
99316	Nursing fac discharge day	Available through Dec. 31, 2023

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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Domiciliary / Rest Home and Telehealth

Code	Short Descriptor	Status
99324	Domicil/r-home visit new pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99325	Domicil/r-home visit new pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99326	Domicil/r-home visit new pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99327	Domicil/r-home visit new pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99328	Domicil/r-home visit new pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99334	Domicil/r-home visit est pat	Permanent –Deleted eff. 1/1/2023
99335	Domicil/r-home visit est pat	Permanent—Deleted eff. 1/1/2023
99336	Domicil/r-home visit est pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023
99337	Domicil/r-home visit est pat	Temporary Addition for COVID-19 PHE-Deleted eff. 1/1/2023

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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Home Care Codes and Telehealth Time

Code	Short Descriptor	Status
99341	Home visit new patient	Temporary Addition COVID-19 Pandemic PHE
99342	Home visit new patient	Temporary Addition for COVID-19 PHE
99343	Home visit new patient	Temporary Addition for COVID-19 PHE
99344	Home visit new patient	Temporary Addition for COVID-19 PHE
99345	Home visit new patient	Temporary Addition for COVID-19 PHE
99347	Home visit est patient	Permanent
99348	Home visit est patient	Permanent
99349	Home visit est patient	Available through December 31, 2023
99350	Home visit est patient	Available through December 31, 2023

https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes

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St. Louis University Annual Medicare Wellness Visit for Nursing Home Residents

SLU Annual Medicare Wellness Visit

Nursing Home _____

Name_____ DOB___/___/____ Date:___/___/____

Vital Signs: Ht___ Wt____ B/P____/____ Pulse_____ RR_____

Vaccinations: Date

Influenza Y / N ___/___/____
Pneumococcus Y / N ___/___/____
Prevnar Y / N ___/___/____
Tetanus Y / N ___/___/____

Hepatitis B Y / N ___/___/____
Herpes Zoster Y / N ___/___/____
PPD Y / N ___/___/____

Active Diseases:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Medications:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

PHQ 9 _____ Hearing Impaired Y / N
FRAIL _____ Cerumen impacted Y / N
FRAIL NH___ Vision Impaired Y / N
Pain Score ___ Falls Y / N
SARC-F_____ Smoking Y/N
SNAQ _____ Weight Loss Y/N
RCS _____ Advance Directive Y / N

A Scale to Identify Frailty in the Nursing Home - FRAIL-NH Scale

	0	1	2
Fatigue	No	Yes	PHQ-9 ≥10
Resistance (Transfer)	Independent Transfer	Set Up	Physical Help
Ambulation	Independent	Assistive Device	Not Able
Illnesses	None	1-4	≥5
Loss of Weight	None	5% to 5 kg	≥10% or ≥5 kg
Nutritional Approach	Regular Diet	Mechanically Altered	Feeding Tube
Help with Dressing	Independent	Set Up	Physical Help
Total			

Assessment: Patient had annual wellness visit. Agree with findings. Pt is cognitively intact / impaired, not frail, not failing, not pre-frail, not severely cachectic.
Recommendations

Signature: _____ G0438

Morley JE, Abele P. The Medicare Annual Wellness Visit in Nursing Homes. J Am Med Dir Assoc. 2016 Jul 1;17(7):567-9. doi: 10.1016/j.jamda.2016.05.008. PMID: 27346648.
Note: This recommended data may not completely meet the requirements for the AWV

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REFERENCE MATERIALS

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Name of Service	
AMA Link to 2023 Evaluation and Management CPT Code Revisions	https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjTy7DP3NP6AhW4lIkEHSZ-CTsQFnoECBAQAQ&url=https%3A%2F%2Fwww.ama-assn.org%2Fsystem%2Ffiles%2F2023-e-m-descriptors-guidelines.pdf&usg=AOvVaw3602CDkiKKTlCu7RZECisq
CMS Website on COVID-19 Waivers	https://www.cms.gov/coronavirus-waivers
Appendix PP: State Operations Manual—Guidance to Surveyors (All the F-tags and federal regs for nursing facilities)	https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf
Medicare Claims Processing Manual, Chapter 12 (Physician/Non-physician Practitioners)	https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c12.pdf
CMS List of Covered Telehealth Services during the COVID-19 Pandemic	https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes
Health and Human Services Telehealth Info	https://www.telehealth.hhs.gov/
CMS COVID-19 Waivers	https://www.cms.gov/coronavirus-waivers

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Name of Service	Where to find the information
Chronic Care Management Services	https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/Downloads/R3678CP.pdf
Cognitive Assessment and Care Services	https://www.alz.org/careplanning/downloads/cms-consensus.pdf
Advance Care Planning Services	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AdvanceCarePlanning.pdf
Non-Face-to-Face Prolonged Services (note: descriptor will be revised effective 1/1/2023)	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/Downloads/MM9905.pdf
Care Management Services in Rural Areas	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/FQHCPPS/Downloads/FQHC-RHC-FAQs.pdf

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Name of Service	Where to find the information
The Initial Preventive Physical Exam ("Welcome to Medicare Visit")	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/preventive-services/medicare-wellness-visits.html
Annual Wellness Exam (AWV)	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/preventive-services/medicare-wellness-visits.html
Incorporating the AWV into the Nursing Facility	Little MO, Sanford AM, Malmstrom TK, Traber C, Morley JE. Incorporation of Medicare Annual Wellness Visits into the Routine Clinical Care of Nursing Home Residents. J Am Geriatr Soc. 2020 Dec 18. doi: 10.1111/jgs.16984. Epub ahead of print. PMID: 33339071. https://agsjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/jgs.16984
Transitional Care Management Services	https://www.aafp.org/family-physician/practice-and-career/getting-paid/coding/transitional-care-management-faq.html https://www.aafp.org/family-physician/practice-and-career/getting-paid/coding/transitional-care-management.html (May require membership, password or fee)
Behavioral Health Integration Services	https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/BehavioralHealthIntegration.pdf https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/Downloads/Behavioral-Health-Integration-FAQs.pdf
Medicare Physician Fee Schedule Lookup	https://www.cms.gov/medicare/physician-fee-schedule/search

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Other resources for Telehealth Services during the COVID-19 pandemic

- Special coding advice during COVID-19 public health emergency

https://www.ama-assn.org/system/files/2020-03/covid-19-coding-advice.pdf

- AMA quick guide to telemedicine in practice

https://www.ama-assn.org/practice-management/digital/ama-quick-guide-telemedicine-practice

- Medicare Telemedicine Provider Fact Sheet

https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet

NOTE: Because of rapidly changing rules and directives during the COVID-19 Public Health Emergency, please check the dates on internet resources to be assured the information is accurate and current

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Other resources for Telehealth and other Services during the COVID-19 Pandemic

- Long-Term Care Nursing Homes Telehealth and Telemedicine Tool Kit (note: dates from 2020, so much of the information is dated)

https://www.cms.gov/files/document/covid-19-nursing-home-telehealth-toolkit.pdf

- AMA quick guide to telemedicine in practice

https://www.ama-assn.org/practice-management/digital/ama-quick-guide-telemedicine-practice

- Rural Crosswalk: CMS Flexibilities to Fight COVID-19

https://www.cms.gov/files/document/omh-rural-crosswalk-5-21-21.pdf

- Telehealth Services (Medicare Learning Network)

https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/TelehealthSrvcsfctsht.pdf

NOTE: Because of rapidly changing rules and directives during the COVID-19 Public Health Emergency, please check the dates on internet resources to be assured the information is accurate and current

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Caring for Older LGBTQ+ Adults in PALTC

Jonathan S. Appelbaum, MD, FACP, AAHIVS (he/him)
Laurie L. Dozier, Jr., MD Education Director and Professor of Internal Medicine
Chair, Department of Clinical Sciences
Florida State University College of Medicine

November 5, 2022
FMDA Annual Conference

1

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Disclosures

- Dr. Appelbaum serves as an advisor for Merck, Viiv Healthcare and Theratechnologies

2

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Learning Objectives

- Describe the demographics of the LGBTQ+ community and older LGBTQ+ persons in particular
- Define LGBTQ+ terminology
- Describe a patient-centered, culturally competent approach to gathering data and examining older LGBTQ+ persons
- Articulate some of the unique medical issues of older LGBTQ+ persons and the challenges they face in PALTC
- Describe strategies to create a culturally appropriate environment for older LGBTQ+ persons in PALTC

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Demographics

- Estimated 2.4 mil LGBTQ+ older adults (2019)
- More likely to have experienced homophobia in healthcare
  - 40% of persons 60-70 have not disclosed sexual orientation to provider
- Non-disclosure associated with lower life satisfaction, depression, suicide, substance abuse, delay in seeking medical care

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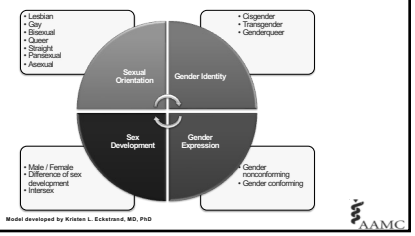
Terminology

- Lesbian (WSW)
- Gay(MSM)
- Bisexual
- Cisgender
- Transgender
- Queer
- Nonbinary
- Genderqueer
- Minority stress
- Internalized homophobia

LGBT Resource Center, UCSF

5

ALPHABET 101: Respect and utilize the language individuals use to describe themselves



Model developed by Kristen L. Eckstrand, MD, PhD

AAMC

6

Common Assumptions

Common Assumptions	
• Heterosexuality • All patients use traditional labels • Sexual orientation is based on appearance • Sexual orientation is based on behavior • Sexual behavior based on orientation • Identity, attraction, and behavior don't change	• Gender identity = sexual orientation • Gender identity is based on natal sex • Gender identity depends on how far along a patient is in transitioning • All patients are sexually active

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Demographics of Older LGBT Adults

	Yes (%)	No (%)	DK/No Answer (%)
18 - 29	6.4	90.1	3.5
30 - 49	3.2	93.6	3.2
50 - 64	2.6	93.1	4.3
65+	1.9	91.5	6.5

1 – 2.8 million older LGBT adults

Gates & Newport. Special Report: 3.4% of U.S. Adults Identify as LGBT. Gallup. October 18, 2012. http://www.gallup.com/poll/158066/special-report-adults-identify-lgbt.aspx

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Generational Impact and Health

Trauma	Incidence/Prevalence	Resilience
Emotional	• 63-65% of older LGBT individuals report lifetime physical violence [1,2] • 65% of transgender individuals have experienced >1 instance of emotional or psychological abuse in their lifetime[3]	• Social support[4,5] • Self-reliance[4]
Physical	• 40% of older LGBT individuals report lifetime physical violence[1]	
Sexual	• 58% of older transgender individuals report experiencing at least one instance of forcible sex in their lifetime[6]	

Almost two-thirds of LGBT elders have been victimized three or more times.

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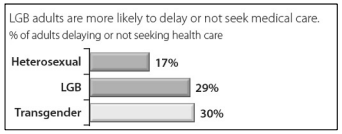
Generational Impact and Health



More than 20% of LGBT elders do not disclose their sexual or gender identity to their physician.

AAMC

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Impact on Health by Gender Identity

- **Very little available research**
- MTF have higher rates of HIV, hepatitis C, and substance abuse
- More likely to use non-medically prescribed hormones
- Less likely to receive preventive care or have mental health needs met
- More research required to understand impact of cross-gender hormone therapy on breasts, ovaries, cervix, uterus, and prostate

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Approach to care of older LGBTQ+ persons

- Recognize lived experiences
- Emphasis on cultural humility
- Recognize that older LGBTQ+ persons may be reluctant to disclose, are slow to trust providers
  - Poor prior treatment
- Respectful, patient-centered interactions
- Collect SOGI information

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Gender and Sexual History

- Preferred name and pronouns
- Who do you live with? Who are they in relationship to you?
- Who do you regard as your family? Who can you count on for help if needed?
- Have you had sex in the past year?
- What are the gender(s) of your sexual partner(s)?
- What type of sex do you have? For example…
- How often do you use condoms for sex?
- Are you taking or have you ever taken PrEP?

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Physical Exam

- Guideline and medical condition directed
- For trans patients: obtain organ inventory
- Trauma informed care

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Medical Needs

Gay and Bisexual Men

- Cardiovascular disease
- Anal cancer
- Prostate cancer
- Sexually transmitted infections

Lesbian and Bisexual Women

- Cardiovascular disease
- Cervical cancer
- Breast cancer

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Medical Needs

Transgender Men and Women

- Continuing gender-affirming hormone therapy
- Cardiovascular disease
- Routine screening-based on organ inventory
- Sexually transmitted diseases

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Sexual Health

- Ask about sexual health and practices
- Prevention of HIV and STIs
  - Less than 5% of all HIV tests are done on persons over age 50
- STI's are increasing in the older LGBTQ+ population

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Polling Question 1

A 71-year-old gay man comes to the office for follow-up for hypertension. Current medications are losartan 50 mg/d and hydrochlorothiazide 25 mg/d. The hydrochlorothiazide was added recently to better control his blood pressure. However, despite the change in drug regimen, his blood pressure today is 160/92 mmHg. On review of his social history, he reports that he smokes approximately half a pack of cigarettes daily and has 2–4 alcoholic beverages most nights.

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Compared to his heterosexual friends, which one of the following is more likely to be present in this patient?

(A)Financial independence
(B)Routine preventive health care screening
(C)Low-risk drinking
(D)Tobacco use

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HIV and Aging

- More than 50% of PWH in US over age 50
  - This is expected to be more than 60% by 2030
  - 27% over age 65 in 2035
- Present to care later
  - More likely to die within a year of diagnosis
    - Diagnosis less likely to be considered
- More adherent to medication but less robust immuno-reconstitution (immunosenecense)
- ? Accelerated aging
  - Polypharmacy, frailty, multimorbidity common

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Polling Question 2

A 68-year-old man comes to the office because he feels tired and weak. History includes hyperlipidemia, coronary artery disease, type 2 diabetes mellitus, and chronic HIV infection. The diabetes is controlled by diet, and the HIV infection is well-controlled with antiretroviral medications. He notes that he has had no energy over the past 6–12 months, such that he has stopped many of the activities he enjoys, and he has lost approximately 10% of his baseline weight in the same period. He has fallen twice, with no injury. He feels frustrated and asks what he can do to improve his level of energy.

On physical examination, temporal wasting is noted. Grip strength is decreased, and gait speed is markedly reduced.

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Regarding this patient, which of the following is likely?

(A) He is more likely to own his home than the general population.
(B) He is more likely to be employed than the general older population.
(C) He is less likely to have experienced the death of a partner than the general population.
(D) He is less likely to have experienced job discrimination in his employment due to sexual orientation than heterosexual men

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Mental Health

- Linked with discrimination
- High rates of depression
  - Minority stress related
  - Being out in community mitigates
- Increased substance use
- Social supports
- Importance of advance care planning
  - Family of choice

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Housing and Longterm Care

- Many states do not have antidiscrimination laws in health care settings. Some states required cultural competence trainings
  - 29 states do not have laws against discrimination in health care settings
- Increase in mistreatment
- Fear of being "outed"
- Development of LGBTQ+ housing for older adults

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Polling Question 3

An 83-year-old man comes to the office for a routine visit. History includes advanced Parkinson's Disease, for which he needs an increasing amount of help with instrumental activities of daily living. Although he is a long-established patient, he previously was evasive about his social network and resources for help. At today's visit, he discloses that he is gay, but he asks that this information not be shared.

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Which of the following is likely to be the primary reason for his reluctance to be open about his sexuality?

(A) Being married to a same-sex partner
(B) Alienation from family
(C) Fear of discrimination
(D) Loss of health insurance coverage

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Best Practices for Caring for LGBTQ+ Older Adults in PALTC

- Human Resources
- Leadership
- Forms and Policies
- Communication
- Staff Training
- Facilities

Clinical Gerontologist (2021)

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Human Resources

- Diverse candidates
- Hire members of the community
- Review job descriptions

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Leadership

- Model inclusive environment
- Hold staff accountable
- Create advocacy: staff, patients, community and empower them

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Forms and Policies

- SOGI on all forms and policies
- Update intake forms and explain confidentiality
- Normalize use of pronouns
- Update antidiscrimination policies
- Allow same sex couples to share a room
- Revise visitor and next-of-kin policies to reflect family of choice
- Allow residents to freely express themselves

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Communication

- Don't assume heterosexuality
- Don't see LGBTQ+ people as all the same
- Ask open ended questions
- Allow residents to share as they are comfortable
- Don't ask questions unless necessary for care
- Use gender-neutral language
- Ask and answer questions in a nonjudgmental way
- Note language used by resident
- Ask what terminology resident prefers

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Staff Training

- Embed SOGI language and training into curricula
- Require staff at all levels, including leadership and board, to participate in ongoing training
- Include LGBTQ+ persons in the training
- Acknowledge and address staff bias during training
- Ground training in history of policies and discrimination that affect LGBTQ+ older adults
- Include training specific to gender identity
- Include skill building activities

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Facility

- Offer LGBTQ+-specific programs/social activities
- Allow staff to display signs of inclusion
- Provide a separate area for women-only accommodations
- Be cautious to draw too much attention to building
- Display signs of affirmation throughout the facility
- Offer continuum of care
- Provide consistent staff if possible.

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Special Populations

- Older persons living with HIV
- Transgender patients
- Mental health issues
- Sexuality and PrEP

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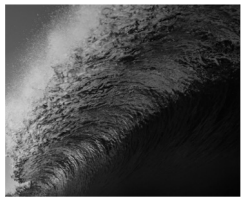
Silver Tsunami: the Next Wave

- **Include the community in design of geriatric HIV programs**
- **Management of multimorbidity and polypharmacy**
- **Prioritization of function and QoL**



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For older persons living with HIV do you continue antiretroviral therapy in PALTC?

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Transgender Persons

- No data or research on TG persons in PALTC
- Stigma, discrimination concerns
- "Bathroom" issue needs policy
- What about gender-affirming hormone therapy?
  - Few contraindications
  - Well-tolerated in older LGBTQ+ persons

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LGBTQ+ Sensitive Mental Health Treatment?

- Are these services available and is there capacity?
  - Trauma informed care
  - Minority stress
  - Stigma
  - Homophobia/transphobia

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Sexuality

- Not really addressed in PALTC
- Acceptance of same-sex relationships
- What about use of PrEP?

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Conclusions

- LGBTQ+ persons are an underserved and underrecognized population
- Cultural awareness and competency are needed
- We described a patient-centered approach to care
- Additional research is needed

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Resources

- SAGE
- National Resource Center on LGBT Aging

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Resources

Accord Alliance
better care. better outcomes. better lives.

National Resource Center ON LGBT AGING

sage SERVICES & ADVOCACY FOR GAY, LESBIAN, BISEXUAL & TRANSGENDER ELDERS

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Learning Objectives

- Describe the demographics of the LGBTQ+ community and older LGBTQ+ persons in particular
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- Describe strategies to create a culturally appropriate environment for older LGBTQ+ persons in PALTC

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References

- GRS 11th edition: pages 83-90
- Fasullo K, McIntosh E, Buchholz S et al *LGBTQ Older Adults in Long-Term Care Settings: An Integrative Review to Inform Best Practices*. 2021 Clinical Gerontologist
- AAHIVM National HIV and Aging Initiative. https://education.aahivm.org/product_bundles/2297

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Pearls

- LGBTQ+ persons ARE living in PALTC facilities and are likely to be increasingly visible in the future
- Cultural awareness, cultural humility and sensitivity are important for this population to feel safe from stigma and discrimination

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Serious Illness Care: The State of Hospice Services

Joseph W. Shega, MD | Executive Vice President and Chief Medical Officer, VITAS® Healthcare
Associate Professor of Medicine, University of Central Florida

VITAS Healthcare

1

Objectives

- Understand the hospice care model including Diversity, Equity, and Inclusion (DEI) considerations
- Recognize hospice as an at-risk, value-based care model
- Appreciate hospice as a key partner in nursing home end-of-life care
- Identify patients that can benefit from hospice services

2

2

Chronic Illness Progressive Illness
Goals of Care Serious Illness Hospice Discussion
Surprise Question Advance Care Planning Transitions in Care
Acute on Chronic Illness Pain Complex Management
Coordination of Care Symptom Management

3

3

Case Discussion

PF Skilled and HF

- 88 y/o with 1 recent ED visit and 1 hospitalization for HF
  - Transitioned Skilled
- PMH: rheumatoid arthritis, macular degeneration, spinal stenosis, anxiety/depression, mild dementia
- SOB minimal exertion
- Weight loss 44 pounds, 188 to 144
- Dependent IADL, ADL independent
- Served in Army
- Alert and oriented person and place, forgetful, periods of severe restlessness
- Goal: get stronger to go home

MF LTC and Dementia

- 68 y/o residing LTC progressive mixed dementia
- PMH: hypothyroid, arthritis, s/p CVA, s/p fall with hip fracture several months ago, new onset seizures, severe anxiety
- Recent eating difficulty with dysphagia (solids) and episodes of coughing
- UTI a couple of weeks ago
- Weight loss 5 pounds, 135 to 130 pounds, poor appetite; no skin breakdown
- Newly bedbound/needs 1-2 assist WC
- Dependent 4-5/6 ADLs; minimally verbal
- Goal: comfort care, not go back to the hospital

4

4

Domains to Consider

Clinical Judgment	Would you be surprised if this patient passed within 6 months?
Nutrition	> 10% of normal body weight in 6 months > 5% of normal body weight in 1 month Declining Body Mass Index (BMI) < 22 kg/m2 Dysphagia
Physical Function	PPS, ADLs (3/6), falls, bedbound
Cognition	Awareness of self and environment, communication, consciousness
Healthcare Utilization	ED, hospital, clinic
Symptoms	Delirium, fatigue, shortness of breath, pain, and agitation
Disease-specific Decline	Cardiac, pulmonary, dementia, cancer, ESRD, sepsis

5

5

Functional Status Predicts Hospice Eligibility

The lower the PPS, the higher the mortality

Hospice eligible for advanced non-curable metastatic cancer

Hospice eligible for advanced illness

%	Ambulation	Activity and Evidence of Disease	Self-Care	Intake	Level of Consciousness
100	Full	Normal Activity	Full	Normal	Full
		No Evidence of Disease			
90	Full	Normal Activity	Full	Normal	Full
		Some Evidence of Disease			
80	Full	Normal Activity With Effort	Full	Normal or Reduced	Full
		Some Evidence of Disease			
70	Reduced	Unable to Do Normal Job/Work	Full	Normal or Reduced	Full
		Some Evidence of Disease			
60	Reduced	Unable to Do Hobby/Housework	Occasional Assistance Necessary	Normal or Reduced	Full or Confusion
		Significant Disease			
50	Mainly Sit/Lie	Unable to Do Any Work	Considerable Assistance Required	Normal or Reduced	Full or Confusion
		Extensive Disease			
40	Mainly in Bed	As Above	Mainly Assistance	Normal or Reduced	Full or Confusion
30	Totally Bed Bound	As Above	Total Care	Reduced	Full or Drowsy or Confusion
20	As Above	As Above	Total Care	Minimal Sips	Full or Drowsy or Confusion
10	As Above	As Above	Total Care	Mouth Care Only	Drowsy or Coma
0	–	–	–	–	–

6

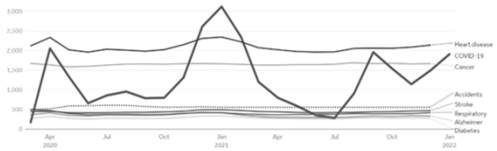
Background

- Hospice remains underutilized by about 1 million US deaths per year, with 84% being related to non-cancer conditions
  - 46% general population die with hospice
  - 40% NH die with hospice
- Over 25% of US deaths occur in US nursing homes
  - 20% cancer, 25% COPD, 50% dementia
- Patients on average have 3 transitions in last 90 days of life
- 30% of decedents use the skilled benefit in the last 6 months of life with about 1.5% being referred to hospice at time of discharge

Teno, et al. "Change in end-of-life care for Medicare beneficiaries: site of death, place of care, and health care transitions in 2000, 2005, and 2009." *JAMA* 309.5 (2013): 470-477.
Wang, et al. "End-of-life care transition patterns of Medicare beneficiaries." *Journal of the American Geriatrics Society* 65.7 (2017): 1406-1413.
Cagle, et al. "Hospice utilization in the United States: A prospective cohort study comparing cancer and noncancer deaths." *Journal of the American Geriatrics Society* 68.4 (2020): 783-793.

7

US Deaths by Cause



https://www.healthsystemtracker.org/brief/covid-19-leading-cause-of-death-ranking/

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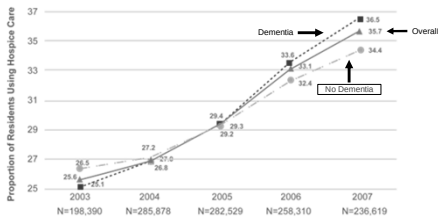
Nursing Home Deaths by Dementia Status in LTC



- 35.7% used hospice care in the last 100 days of life
- 16.3% died in a hospital
  - 19.7% versus 14.2% non-dementia compared to dementia

Li, et al. "End of life quality of care among long-term nursing home decedent residents with and without dementia." *Journal of the American Geriatrics Society* 61.7 (2013): 1066.

9

Location of Death in the US 2000 to 2015

Teno, et al. "Site of death, place of care, and health care transitions among US Medicare beneficiaries, 2000-2015." *JAMA* 320.3 (2018): 264-271.

10

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What Constitutes a Good Death

Patient	Proportion
Preferences for dying process	94%
Pain-free status	81%
Emotional well-being	64%
Dignity	67%
Life completion	61%
Treatment preferences	56%
Religiosity/spiritualty	61%
Presence of family	61%
Quality of life	22%
Relationship with HCP	39%
Other: costs, pets, touch	28%

Family Members in a NH
Basic resident care
Recognize and treat symptoms
Continuity of care
Respecting end of life wishes
Offering environmental, emotional, psychosocial, and spiritual support
Keep family informed
Promote family understanding
Establish partnership with family and guide through shared decision-making

Meier, et al. "Defining a good death (successful dying): literature review and a call for research and public dialogue." *The American Journal of Geriatric Psychiatry* 24.4 (2016): 261-271.
Gonella, et al. "Good end-of-life care in nursing home according to the family carers' perspective: A systematic review of qualitative findings." *Palliative Medicine* 33.6 (2019): 589-606.

11

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Hospice Overview

- Federal law in 1982 defines the benefit per the Conditions of Participation
- Fully at-risk for population to cover all end-of-life related costs through fixed daily rate based upon level of care
  - No adjustment for acuity and complexity
- Elements of value-based care
  - Not volume driven as don't get paid for doing more
  - Team-based home care focus including volunteers
  - Medical model plus; 24/7/365 availability
  - Bundle of services
  - Community focus and helps link those services
- Underutilized
  - Proportional use and short LOS

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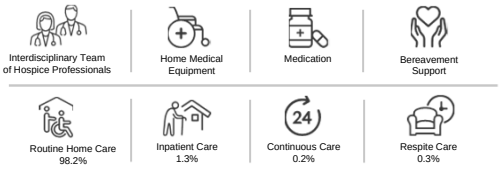
Hospice Eligibility and Service Requirements

- Prognosis of 6 months or less
  - Physician's certification the patient is terminally ill with a life expectancy of 6 months or less if the terminal illness runs its normal course
- Election process with focus on quality of life
  - Patient/family agree to a care plan with goals palliative in nature, primarily focused on management of physical, psychosocial, emotional, and spiritual symptoms



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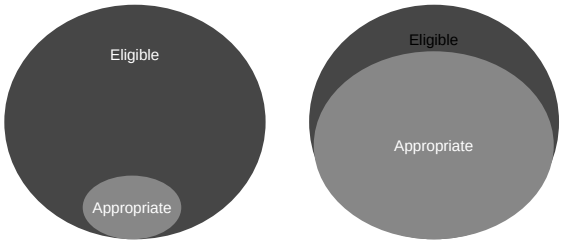
Hospice Enrollment



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The Value of a Partnership with VITAS

All hospices must provide core services, but substantial variation exists in how these services are delivered.

Hospice Core Services
Core Team | All Levels of Care | 24/7 Availability Medications | Equipment

Elevated Care
- Telecare
- Telehealth
- Intensive Comfort Care®
- Visits after hours and weekends
- Physician centric care model

Distinctive Programs
- Advanced lung
- Heart failure
- Sepsis/Post-Sepsis
- Oncology
- Dementia behavioral protocols
- ED diversion
- Academic partnerships and publications
- Robust educational platform offering CEUs, CMEs, multilingual patient and family education
- Clinical pastoral education
- Local ethics committee

Complex Modalities
- IV hydration/TPN Lyte
- IV/PO antibiotics
- Inotrope therapy
- Sub-Q diuretics
- Therapy Services: PT, OT, Speech
- Paracentesis
- Thoracentesis
- Blood transfusions
- Oncology taskforce for anti-tumor treatments (hormonal, XRT)
- PleurX drains
- Nutritional counseling
- ICDs/LVADs

VITAS-Owned HME
- Oxygen, including high-flow
- Non-invasive ventilation, BiPAP, CPAP, home ventilator, and Trilogy
- Hospital bed
- Specialized mattresses
- ADL assist devices
- Incontinence supplies
- Wound care supplies
- Hospice-specific access (24/7/365) and speed to home medical equipment (HME)

Specialty Therapies
- Respiratory therapy
- Music
- Massage
- Pet
- PT/OT/Speech
- Wound care
- Dietary
- Child-life specialist
- Bereavement/ support groups
- Veterans specialist

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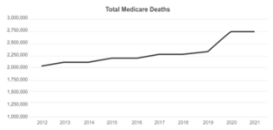
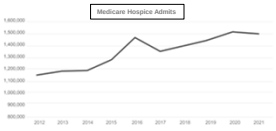
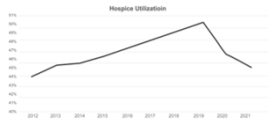
Medicare Deaths, Hospice Admits, and Utilization







- Deaths in 2021 decreased by 5,000 (<1% YoY)
- Medicare hospice admits decreased 1.1% YoY
- Hospice use increased annually between 2012 and 2019, but declined in both 2020 and 2021
- 2021 utilization below 2013's rate of 45.2%, despite the 2nd most beneficiaries ever dying on hospice
- Hospice use decreased from 46.4% in 2020 to 44.9% in 2021

Data Source: Hospice Analytics

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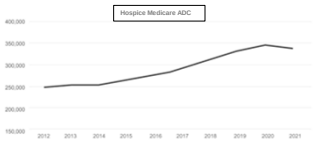
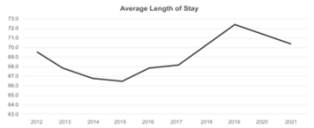
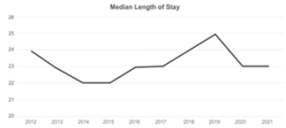
Hospice Medicare ADC, Median, and Mean LOS



- Medicare Hospice ADC decreased 2.5% from 2020 to 2021
- MLOS remained the same from 2020 to 2021, and ALOS decreased slightly





Data Source: Hospice Analytics

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Nursing Home, End of Life, and DEI

Advance Care Planning

- AD completion lower for persons of color compared with White residents, with racial differences increased for Black and cognitive impairment severity
  - Dementia, black residents had the lowest odds of having an AD aOR 0.26 (0.25-0.27) compared with White residents
- AD are completed on average 21 days from admission for Whites compared with 229 days for persons of color
- White residents were consistently more likely to have both a DNR aOR 3.79 (2.80, 5.14) and DNH aOR 2.51 (1.55, 4.06) compared persons of color

Hospitalization

- Persons of color are significantly more likely to be hospitalized in the last 90 days before death, p<0.001
- Black residents experienced more EOL hospitalizations compared with White residents
  - Persons of color had an aRR 1.24 (1.22, 1.26) of a hospitalization in the last 90 days of life
- NH residents in facilities with higher proportions of Black residents had a higher risk of in-hospital death compared with NHs with lower proportions of Black residents

Estrada, et al. "Racial/ethnic disparities in nursing home end-of-life care: A systematic review." *Journal of the American Medical Directors Association* 22.2 (2021): 279-290.

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Nursing Home, End of Life, and DEI

Hospice

- Studies show mixed results, but trends emerge
- Over time, hospice use has increased in NH residents for persons of color and White residents
- Persons of color use hospice less than White residents and for a shorter LOS
  - Persons of color in the same facility had less hospice use OR 0.85 (0.78, 0.94) compared to White residents
  - Persons of color were found to be less likely to have long hospice stays of >180 days; OR 0.54 compared to White residents
- Factors associated with greater hospice use in persons of color include hospice contract, high tier NH, DNR status, and DNH order

Pain Management

- Black residents in NHs with a diagnosis of dementia and cancer had significantly higher Discomfort Behavior Scale scores compared with White residents (16 vs 39, respectively; P<0.0009), which is indicative of a higher prevalence of pain

Estrada, et al. "Racial/ethnic disparities in nursing home end-of-life care: A systematic review." *Journal of the American Medical Directors Association* 22.2 (2021): 279-290.

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Case Discussion

PF Skilled and HF

- 88 y/o with 1 recent ED visit and 1 hospitalization for HF
  - Transitioned Skilled
- After 14 days he plateaus with no improvement in functional status, can walk 15-20 feet with walker
- One fall, unwitnessed, no injury
- SOB minimal exertion
- Weight loss continues 144 pounds to 136
- Stage II sacrum, worsening
- Dependent IADL, ADL help bathing and dressing
- Increased forgetfulness, paranoia, worsening restlessness, episodes severe shortness of breath
- Goal: get stronger and go home

MF LTC and Dementia

- 68 y/o residing LTC progressive mixed dementia
- Continued eating difficulty with dysphagia solids and episodes coughing
- New onset myoclonus
- Weigh loss continues 125 pounds, poor appetite; no skin breakdown
- Bedbound; no longer getting into wheelchair; sleeping more, about 14 hours a day
- Dependent 5/6 ADLs; minimally verbal
- Goal: comfort care, not going back to the hospital

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Day 14 Considerations

Factors indicating poor restorative outcomes and further conversations about care goals with patient and family:

- Progressive dementia
- Significant functional debility, low likelihood of return to independence
- Custodial needs > skilled needs
- Tolerate < 20 minutes of therapy/day
- Motivation and ability to participate
- Multiple comorbidities
- Ongoing decline anticipated and unavoidable
- Requires 24-hour care

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Casper Report: 13 Quality Measures

Resident Name	AO31O/AB/F	High Risk/Unstagable Pre Ulcer (L)	Physical Restrains (L)	Falls (L)	Falls with Mechanical Injury (L)	**Antipsychotic Meds (S)**	Antipsychotic Meds (L)	**Antianxiety/hypnotic, prev (L)**	**Antianxiety/hypnotic, % (L)**	Behavioral Symp Affect Others (L)	**Depressive Sx (L)**	UTI (L)	Cath Insert/Left Bladder (L)	Lo-Risk lose B/B Con (L)	**Excess Weight Loss (L)**	**Incr ADL Help (L)**	**Move Independent Worsens (L)**	**Improve in function (S)**	Quality Measure Count
PF						X												X	2
MF								X	X		X				X	X	X		6

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CMS Nursing Home Quality Measures: Hospice Risk Adjustment

Long-Stay Resident Measures	Hospice Impact	Hospice Risk Adjustment
Number of hospitalizations per 1,000 long-stay resident days	x	x
Number of outpatient emergency department visits per 1,000 long-stay resident days	x	x
Percentage of long-stay residents who got an antipsychotic medication	x	
Percentage of long-stay residents experiencing one or more falls with major injury	x	
Percentage of long-stay high-risk residents with pressure ulcers	x	
Percentage of long-stay residents with a urinary tract infection	x	
Percentage of long-stay residents whose ability to move independently worsened	x	x
Percentage of long-stay residents whose need for help with daily activities has increased	x	x
Percentage of long-stay residents who report moderate to severe pain	x	
Percentage of long-stay low-risk residents who lose control of their bowels or bladder	x	
Percentage of long-stay residents who lose too much weight	x	x
Percentage of long-stay residents who have symptoms of depression	x	
Percentage of long-stay residents who got an anti-anxiety or hypnotic medication	x	x

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Last Place of Care Experience

Outcome	Hospice	Nursing Home	Home Health	Hospital
Not Enough Help with Pain, %	18.3	31.8	42.6	19.3
Not Enough Help Emotional Support, %	34.6	56.2	70	51.7
Not Always Treated with Respect, %	3.8	31.8	15.5	20.4
Enough Information about Dying, %	29.2	44.3	31.5	50
Quality Care Excellent, %	70.7	41.6	46.5	46.8

Teno, et al. "Family perspectives on end-of-life care at the last place of care." JAMA 291.1 (2004): 88-93.

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Hospice Impact Dementia Care: Patient

- More likely to die at home (76% vs. 38%)
- Less likely to die in the hospital (7% vs. 45%)
- Improved pain and symptom management
- Fewer end-of-life transitions

Shega, et al. "Patients dying with dementia: experience at the end of life and impact of hospice care." *Journal of pain and symptom management* 35.5 (2008): 499-507.
Harrison, et al. "Hospice Improves Care Quality For Older Adults With Dementia In Their Last Month Of Life: Study examines hospice care quality for older adults with dementia in their last month of life." *Health Affairs* 41.6 (2022): 821-830.

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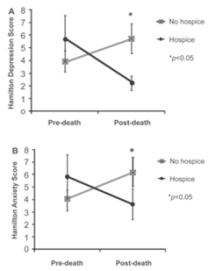
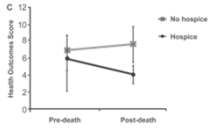
Hospice Impact Dementia Care: Family





- Increased satisfaction with care
- Decreased burden
- Decreased anxiety and depression
- Improved overall health

Irwin, et al. "Association between hospice care and psychological outcomes in Alzheimer's spousal caregivers." *Journal of Palliative Medicine* 16.11 (2013): 1450-1454.

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Hospice Decreases End of Life Care Expenses

Characteristics	Adjusted mean, $ Hospice Group	Propensity score weighted controls	Difference	*P* value
Total expenditures				
Last 3 d[a]	2473	5285	-2831	<.001
Last wk[a]	2106	8911	-6806	<.001
Last 2 wks[c]	4083	12 869	-8785	<.001
Last mo[c]	8558	20 305	-11 747	<.001
Last 3 mos[c]	20 908	31 816	-10 908	<.001
Last 6 mos[c]	43 679	43 357	322	.93
Family out of pocket				
Last 3 d[a]	67	139	-71	<.001
Last wk[a]	46	262	-216	<.001
Last 2 wks[c]	159	424	-265	<.001
Last mo[c]	241	912	-670	<.001
Last 3 mos[c]	2412	1763	649	.41
Last 6 mos[c]	4096	2988	1109	.55
Medicare				
Last 3 d[a]	2121	4389	-2267	<.001
Last wk[a]	2029	7337	-5308	<.001
Last 2 wks[c]	3824	10 576	-6752	<.001
Last mo[c]	7835	16 559	-8724	<.001
Last 3 mos[c]	17 523	25 250	-7727	<.001
Last 6 mos[c]	36 208	33 036	3171	.26
Private Insurance				
Last 3 d[a]	90	207	-117	<.001
Last wk[a]	3	347	-345	<.001
Last 2 wks[c]	11	567	-556	<.001
Last mo[c]	52	918	-866	<.001
Last 3 mos[c]	165	1499	-1334	<.001
Last 6 mos[c]	105	2252	-2147	<.001

Aldridge, et al. "Association between hospice enrollment and total health care costs for insurers and families, 2002-2018." *JAMA Health Forum*. Vol. 3. No. 2. American Medical Association, 2022.

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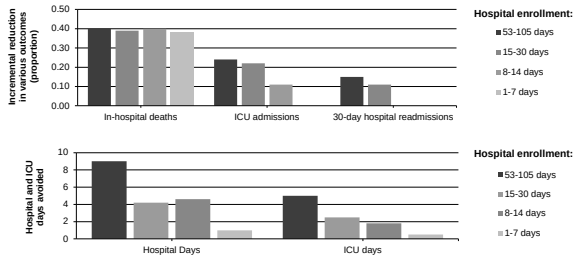
Hospice Decreases Acute-Care Utilization



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Kelly, A. et al. - Hospice Enrollment Saves Money and Improves Quality. *Health Affairs* 2013. 32(3):552–561.

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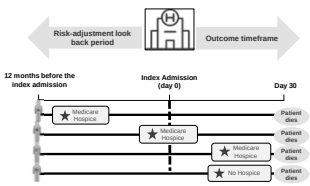
Hospice Impact on Quality for a Health System



Hospice Enrollment	Mortality	Hospital Readmission	ICU and Hospital Bed Availability	Medicare per Beneficiary Spend
12 months before	⇩	⇩	⇧	⇩
First day of index admission	⇩	⇩	⇧	⇩
After the first day of index admission	⇧	⇩	⇔	⇩
No hospice	⇧	⇧	⇩	⇧

CMS, FAQ for the Risk-Standardized Outcomes & Payment Measures Public Reporting Year 2019 (July 1, 2019 - June 30, 2020). VITAS Proprietary Case Study

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California Hospice Licensure and Oversight- March 29,2022

- Rapid increase in hospice agencies without correlation need
  - 2,800 hospice agencies licensed in the state of CA
  - Los Angeles County has experienced a 1,500 percent increase in its number of hospice agencies since 2010.
  - It had more than six-and-a-half times the nationwide average number of hospice agencies relative to its aged population in 2019
  - A single building in Van Nuys had over 150 licensed hospice–a number that exceeds the structure's apparent physical capacity
- Lack of oversight in licensing and patient complaints
- Hospice agencies using stolen identities
- Care provided for non-terminal patients with high live discharge rates

https://www.auditor.ca.gov/reports/2021-123/index.html

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Hospice Mergers and Acquisitions

JAMA Health Forum.

Hospice Acquisitions by Profit-Driven Private Equity Firms

- Private equity seeing a huge opportunity to buy hospices- "predator"
  - Kindred Healthcare example
    - 2018 Humana and 2 private equity partners paid $4.1 billion, Humana $800 million for 40% stake with option buy in 3 years
    - In 2021, Humana did so, paying the equity firm 5.7 billion additional
- Articulated warning about private equity and care quality

Privately Owned & Private Equity

For-Profit Insurer & Private Equity

For-Profit Insurer & For-Profit Hospice

For-Profit Hospital and For-Profit Senior Living

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Descriptive Summary of Study Findings

For profit hospices were:

- Less likely to providing charity care 80% vs 82%
- Less likely to partner with oncology centers 25% vs 33%
- Likely to care for nursing home patients 30% vs 25%
- More likely to have a higher patient disenrollment rate 10% vs 6%
- More likely to engage in outreach to low-income communities 61% vs 46%
- More likely to engage in minority communities 59% vs 48%

Aldridge, et al. "National hospice survey results: for-profit status, community engagement, and service." *JAMA Internal Medicine* 174.4 (2014): 500-506.

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Enrollee Rates/Hospice Use 5 Largest For- Profit and Not-for-Profit

Largest Five Chains	Agencies Patients n		Hospice Diagnosis and Residence, %			Use Characteristics				
			Cancer	Dementia	Nursing Home Residence	Length of Use, Days		Stays ≤3 Days	Stays with Live Discharge	No General Inpatient Care or Continuous Home Care in Last 7 Days
						Mean	Median	%		
For-profit										
VITAS	37	46,494	27	20	25	88.7	16	18	17	26
Gentiva	103	41,693	24	18	35	102.9	20	16	19	61
Heartland	74	19,541	22	22	48	106.7	31	12	23	88
Amedisys	53	14,075	22	17	34	99.1	29	12	24	85
Aseracare	45	9,973	18	22	64	98.6	25	14	19	42
Non-for-profit										
Hospice of the Valley	4	9,086	29	4	14	95.0	20	17	19	42
Providence Health and Services	7	6,424	29	11	18	65.8	22	14	16	92
Chapters Health Hospice	2	6,407	30	16	22	87.3	16	20	22	26
Kaiser Permanente	13	4,530	49	4	8	57.7	27	7	18	97
Convenant Hospice	2	3,734	30	13	30	96.2	17	15	16	50

Stevenson, et al. "Effect of ownership on hospice service use: 2005–2011." Journal of the American Geriatrics Society 64.5 (2016): 1024-1031.

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33

Case Discussion

PF Skilled and HF

- 88 y/o with 1 recent ED visit and 1 hospitalization for HF
  - Transitioned Skilled
- After 100 days start talking about placement, difficulty ambulating, unable stand on own
- Three additional falls, unwitnessed, one required 6 stitches
- SOB minimal exertion and at rest
- Weight loss continues 136 pounds to 116
- Stage IV sacrum, foul odor
- Dependent IADL, ADL help all ADL
- Increased forgetfulness, paranoia, worsening restlessness, episodes severe shortness of breath
- Goal: to be in a safe place; DNR/DNH

MF LTC and Dementia

- 68 y/o residing LTC progressive mixed dementia
- Continued eating difficulty with dysphagia solids and episodes coughing
- Myoclonus continues
- Weigh loss continues 120 pounds, poor appetite; no skin breakdown
- Bedbound; no longer getting into wheelchair; sleeping more about 18 hours a day; fell out of bed once with mechanical injury
- Dependent 6/6 ADL's; minimally verbal
- One UTI E coli
- Goal: comfort care, not go back to the hospital

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Casper Report: 13 Quality Measures

Resident Name	AO31OA/B/F	High Risk/Unstagable Pre Ulcer (L)	Physical Restrains (L)	**Falls (L)**	**Falls with Mechanical Injury (L)**	**Antipsychotic Meds (S)**	Antipsychotic Meds (L)	**Antianxiety/hypnotic, prev (L)**	**Antianxiety/hypnotic, % (L)**	Behavioral Symp Affect Others (L)	**Depressive Sx (L)**	**UTI (L)**	Cath Insert/Left Bladder (L)	Lo-Risk lose B/B Con (L)	**Excess Weight Loss (L)**	**Incr ADL Help (L)**	**Move Independent Worsens (L)**	**Improve in function (S)**	Quality Measure Count	**Total**
PF				X	X	X		X	X		X				X	X	X	X		**10**
MF				X	X			X	X		X	X			X	X	X			**9**

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Improving Hospice Access for Short-Stay Residents

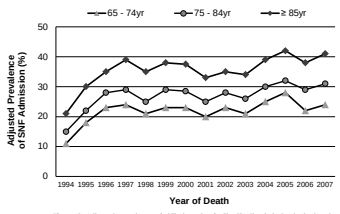

Figure 2. Adjusted prevalence of skilled nursing facility (SNF) admission in the last 6 months of life by age group. Prevalence of SNF admission in the last 6 months of life was calculated with adjustment for groups of age at death and year of death. Reported values incorporate survey weights to account for the complex survey design.

Table 2. Top 10 Medicare Provider Analysis Review File Diagnosis Related Group (DRG) Admission Diagnoses to a Skilled Nursing Facility in the Last 6 Months of Life

DRG Code	Definition	%
127	Heart failure and shock	8.3
462	Rehabilitation	5.4
236	Fractures of hip and pelvis	4.8
89	Simple pneumonia and pleurisy age > 17 years old with complications, comorbidities	4.8
88	Chronic obstructive pulmonary disease	4.4
12	Degenerative nervous system disorders	3.6
14	Intracranial hemorrhage or cerebral infarction (beginning October 1, 2004)	3.3
467	Other factors influencing health status	2.2
90	Simple pneumonia and pleurisy age > 17 years old without complications, comorbidities	2.1
82	Respiratory neoplasms	1.9

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Supportive Approaches

	Hospice	Home Health	Palliative Care
Eligibility Requirements	Prognosis required: ≤ 6 months if the illness runs its usual course	Prognosis not required	Varies by program, usually life-defining illness
	Skilled need not required	Skilled need required	Skilled need not required
Plan of Care	Quality of life and defined goals	Restorative care	Quality of life and defined goals
Length of Care	Unlimited	Limited, with requirements	Variable
Homebound	Not required	Required, with exceptions	Not required
Targeted Disease-Specific Program	✓	Variable	Variable
Medications Included	✓	X	X
Equipment Included	✓	X	X
After-Hours Staff Availability	✓	X	X
RT/PT/OT/Speech	✓	✓	X
Nurse Visit Frequency	Unlimited	Limited, based on diagnosis	Variable
Palliative Care Physician Support	✓	X	Variable
Levels of Care	4	1	1
Bereavement Support	✓	X	X

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NH Pressures and Benefit Hospice Partnership

Pressure	Opportunity Hospice Partnership
Staffing	**Direct Care Support:** nurse, aide, social worker, chaplain, volunteer, physician and safe discharges for short-stay to hospice in community, veteran support **Nursing Home Staff Retention Initiatives:** Memorial services, bereavement support for staff members, team building, recognition of national healthcare holidays (CNA Week, Nurses Week, Social worker Month, Nursing Home Week)
Census	Continuous care, respite, GIP, co-marketing/education to feeder hospitals with VITAS Rep
Quality	Survey support, attendance at Care Plan Reviews, work with MDS to identify measures that may trigger hospice eligibility on Casper report, hospice risk adjusted quality measures, Behavioral Management Protocol
Staff training	CEU's (hospice, pain, disease specific (dementia behaviors), communication, etc, Hospice and Nursing Home Partnership MDS and Quality Measures)
Infection control	Strict adherence COVID protocols care coordination

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Case Discussion

PF Skilled and HF

- 88 y/o with 1 recent ED visit and 1 hospitalization for HF
  - Transitioned Skilled
  - Falls, functional dependency, weight loss
  - Pressure ulcer, stage IV, non-healing
  - SOB minimal exertion and rest
- Physician called to indicate transferred to long-term care
- Did not mention hospice
- We initiated the referral and was admitted that day

MF LTC and Dementia

- 68 y/o residing LTC progressive mixed dementia
  - Dysphagia solids and episodes coughing
  - Weight loss
  - Bedbound, 6/6 ADL dependent, fall
  - UTI
- Physician not supportive of hospice and physician for a competitor hospice-she is not eligible
- Couple weeks later change LOC and to the hospital
  - UTI with sepsis in ICU hypotension
  - Renal failure, no dialysis decision
  - No escalation of care
- Transferred back to the NH on hospice for comfort care

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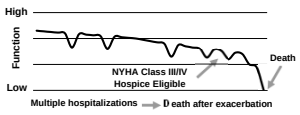
Heart Failure Eligibility Guidelines



NYHA Symptoms:
- Shortness of breath
- Fatigue
- Chest pain
- Palpitations

Prognosis and HF:
- After diagnosis, 50% dead at 5 years
- NYHA class IV, 50% dead at 1 year

- Symptoms minimal exertion or rest (NYHA Class III/IV) despite standard of care
- Inability to tolerate standard of care medical therapies
- Recent history of cardiac arrest or recurrent syncope
- Inotropic support required and no LVAD/ transplant candidate
- Oxygen requirement secondary to poor cardiac function
- Cachexia
  - Weight loss of 7.5% in 6 months associated with 29% mortality
- ED visits and hospitalizations from HF exacerbations

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Dementia Hospice Eligibility Guidelines

Alzheimer's Disease
Lose ability to speak or communicate meaningfully (FAST 7A)

Non-Alzheimer's Disease or Mixed Dementia
Dependent in 3/6 ADLS:
Dress • Incontinence of bowl and bladder
Transferring • Ambulation • Eating • Bathing

Plus either

A comorbidity resulting in structural/functional impairment:
- Heart Disease (e.g., Heart Failure, Advanced Cardiac Disease, etc.)
- Advanced Lung Disease (COPD)

Or

A clinical complication indicative of disease progression:
- Febrile episode
- **Infection requiring antibiotics (aspiration pneumonia, UTI, sepsis)**
- Pressure ulcers
- Dehydration requiring hospitalization
- **Weight loss 10%**
- **Eating difficulty including dysphagia**
- Delirium
- Feeding tube decision

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Onsite Support from VITAS Reps: Care Coordination

Patient: PF		Timely Referral	
Level of Care		Admit	Nursing Home (Home Care)
		Current	Continuous Home Care
		Discharge	Continuous Home Care

Healthcare Information							
Primary Dx	Chronic systolic (congestive) heart failure						
Comorbidities	Altered mental status, unspecified, Anemia, unspecified, Benign prostatic hyperplasia without lower urinary tract symptoms, Edema, unspecified, Essential (primary) hypertension, Fracture of neck, unspecified, subsequent encounter, History of falling, Muscle weakness (generalized), Rheumatoid arthritis, unspecified, Unspecified atrial fibrillation, Unspecified severe protein-calorie malnutrition						
Active Rx Count	8						
HME	Oxygen, suction, gerichair						
Visits by Discipline	Physician	Nurse	HHA	Chaplain	SW	Other	
	1	18	6	1	4	0	
Level of Care (Days)	Telecare Calls	Routine	Routine-Nursing Home	ICC	Gen Inpatient	Respite	Custodial
	10	2	5	7	0	0	0

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Onsite Support from VITAS Reps: Care Coordination

Patient: MF	Timely Referral	
Level of Care	Admit	Continuous Home Care
	Current	Continuous Home Care
	Discharge	Continuous Home Care

Healthcare Information

Primary Dx	Cerebral Atherosclerosis						
Comorbidities	Sepsis, urinary tract infection, end stage renal disease, essential primary hypertension, generalized anxiety disorder, heart failure, unspecified, hyperlipidemia, unspecified, hypothyroidism, unspecified, unspecified convulsions						
Active Rx Count	8						
HME	3-in-1, nebulizer, compressor, oxygen concentrator, w/back-up, oxygen portable w/reg; cart, suction						
Visits by Discipline	Physician	Nurse	HHA	Chaplain	SW	Other	
	2	7	7	1	1	1	
Level of Care (Days)	Telecare Calls	Routine	Routine-Nursing Home	ICC	Gen Inpatient	Respite	Custodial
	4	1	5	6	0	0	0

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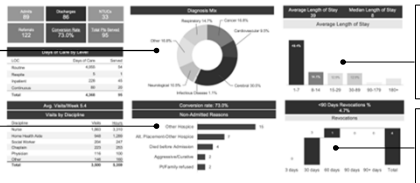
Drive Community Strategy and Execution

Partnership of Care information on mutual patients to help clinicians better understand opportunities to expand hospice care for their patients and how their current patients are being served.

Diagnosis Mix
A review of a clinician's data may reveal under-utilization of hospice for a particular diagnosis type

Not Admitted
reasons can provide insight into a clinician's referral habits



ALOS/MLOS
ALOS and MLOS can help identify opportunities for patients to be referred to hospice earlier in their disease trajectory to improve better patient/family outcomes

Revocations
Understand patient trends and areas to spearhead internal improvements

Participate in at-risk meetings with community PGPs and ALF/LTC leadership

Physician and Facility-Specific Partnership of Care provides data related to mutual patients

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Summary

- Hospice is underutilized in the NH compared to other sites of care
- The benefit offers value for all stakeholders
  - Quality: satisfaction, age in place, staff support, patient symptom burden support
  - Value: Cost savings
- Eligibility, understanding hospice benefit, and communication are key pillars to increase hospice access
- Care coordination is a key component of a NH-Hospice partnership

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Paradox of Care

What Americans Want	What Americans Get
71% choose quality of life over interventions, receive the opposite (Wehri, 2011)	30% of documented care aligns with preferences (Wehri, 2011) Over-medicalized care in last year of life accounts for 25% of Medicare spending (Calfo, 2004)
80–90% prefer to be at home at end of life	Only 1/3 of deaths occur at home (CDC, 2014) 30% are in the ICU the month preceding death (Teno, 2013) 33% experience 4+ burdensome transitions in last 6 months life 50% of older adults in emergency department last month of life
Not to be a burden on their family	25% seniors are bankrupted by medical expenses (Kelley, 2013) 46% of caregivers perform nursing tasks, such as wound care and tube feeding (Reinhard, 2012) In the last year of a patient's life, family care averages nearly 66 hours per week (Rhee, 2009)

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Case Based approach to Optimal Pharmacotherapy

Best Practices 2022

Meenakshi Patel, MD, FACP, MMM, CMD
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Disclosures

- Naushira Pandya is on an advisory board for Sanofi, speaker for Lilly, and Astra Zeneca
- Meenakshi Patel has multiple research grants from several pharmaceutical companies and speaker for TEVA, Lilly, Urovant, Janssen

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Objectives

- Incorporating guideline-based therapy to optimize pharmacotherapy in patients with multi-morbidity
- Simplification of treatment regimens to reduce adverse events
- Improving outcomes through critical review of medications and describing

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Case 1
The problem with hyperkalemia

- A 68 y-old male with a history of type 2 diabetes, CKD (G3a A2),chronic pancreatitis, osteoarthritis, and anemia, began to develop repeated episodes of hyperkalemia over a 3-month period accompanied by weakness
- Current medications:
  - Insulin degludec QD
  - Dulaglutide 3mg SQ weekly
  - Losartan 50 mg QD
  - Amlodipine 10 mg QD
  - Rosuvastatin 20 mg QHS
  - Ibuprofen 400 mg BID PRN
- Laboratory tests: K 5.6 mEq/L, eGFR 47 ml/min/1.73m2, BUN 22 mg/dL, Creat 1.2 mg/L , CO2 29 mEq/L, A1C 7.9%, U microalb/creat 260 mcg/mg creat

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Question 1

What is the most likely cause of hyperkalemia in this patient?

A. Excessive intake of potassium rich foods
B. NSAID use
C. Chronic kidney disease
D. Use of an angiotensin receptor blocker

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Question 2

What is the best long-term strategy to manage hyperkalemia in this patient?

A. Stop losartan
B. Intermittent doses of sodium polystyrene (Kayexalate)
C. Low potassium diet
D. Scheduled doses of sodium-zirconium cyclosilicate (Lokelma)

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Case 1 Management

- Initially he was treated with several doses of 15 g **sodium polystyrene**, but hyperkalemia recurred, and losartan was discontinued
  - Subsequently treated with sodium-zirconium cyclosilicate 10 g PO 3 times a day for 48 h, followed by 10 g daily
  - The patient decreased the frequency of this to 3 times a week after potassium levels reached 4.5-5 m Eq/L
  - Losartan was resumed after discussion with his nephrologist and urine microalbumin level dropped to 114 mcg/mg creat

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Differential diagnosis of hyperkalemia by pathogenesis (1of2)

INCREASED INTAKE (URINE K > 20 mEq/L)	• High K foods with underlying CKD • Salt substitutes • K supplements routinely with diuretics • K-rich parenteral nutrition formulas
DECREASED RENAL EXCRETION (URINE K < 20 mEq/L) **<u>Mechanisms:</u>** **Aldosterone downregulation** **Aldosterone blockade** **Sodium channel blockade** **Na-K ATPase blockade**	• K-sparing diuretics (spironolactone) • ACEI, ARBs • NSAIDs • heparin • Trimethoprim-sulfamethoxazole • Cyclosporine and tacrolimus • Chronic kidney disease • Type 4 renal tubular acidosis (T2 DM, sickle cell disease, adrenal insufficiency, lower urinary tract obstruction (BPH or neurogenic bladder)

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Differential dx of hyperkalemia by pathogenesis (2of2)

SHIFT OUT OF THE CELLS (URINE K > 20 mEq/L)	• Metabolic acidosis mostly due to inorganic acids • Red cell transfusion • β-blockers, methotrexate, digitalis • Succinylcholine use in anesthesia • Insulin deficiency and hyperglycemia • Rhabdomyolysis, tumor lysis syndrome • Neuroleptic malignant syndrome following haloperidol
PSEUDOHYPERKALE-MIA	• Prolonged tourniquet or repeated fist clenching • Severe leukocytosis and thrombocytosis • Traumatic venipuncture • Delay in processing the blood sample in lab

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Predictors of the development of hyperkalemia in patients using ACE inhibitors

- Retrospective study of 119 patients in a renal clinic on ACEI
- The mean baseline serum Cr was 2.3 ± 1.2 mg/dl, and the CrCl was 50 ± 27.5 ml/min
- 46 (38.6%) developed hyperkalemia (mean K 5.68 ± 0.3 mEq/l)
- Diabetes and serum creatinine were the main predictors of hyperkalemia (not GFR or serum HCO_3)
- Also common in HF patients on guideline-recommended inhibitors of the renin-angiotensin-aldosterone system (RAAS)
- RAASI therapy is well known to reduce the risk of death and hospitalization in patients with HF and reduced ejection fraction (HFrEF).
  - ACEI or ARB with a beta-blocker recommended in patients with HFrEF.
  - Difficult decision of down-titrating or discontinuing RAAS inhibitors

Ahuja TS et al. Am J Nephrol 2000;20:268–272
Kumar R. et al The Am J Managed care (Feb2 2017, 23(2Suppl):S27-S36)

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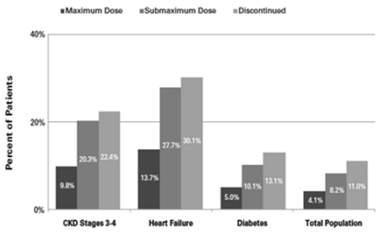
Percentage mortality by prior RAAS inhibitor therapy

Epstein et al. AJMC Sept 2015

Humedica database N=205,108 pts
Max RAAS i dose in 19-26%
Submax RAAS I dose in 5-65%
Discontinued in 14-16%

Cardiorenal adverse event/mortality and mortality occurred in 34.3% and 11.0% of patients who discontinued RAAS inhibitors,



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Case 2
Fracture while on osteoporosis treatment

- An 80 y-old woman with a history of atrial fibrillation, hypothyroidism, hyperlipidemia, vestibular dysfunction, and osteoporosis, developed a transverse fracture of the left femoral shaft in 2021 while getting out of her car.
- She made a good functional recovery after surgical fixation
- Current medications:
  - Clopidogrel 75 mg QD
  - Levothyroxine 100 mcg QD
  - Pravastatin 40 mg QHS
  - Vitamin D3 1000 U QD
  - Calcium 500 mg BID
  - (Alendronate 70 mg Q week discontinued after fracture; had used if for 8-9 y with one drug holiday. She did not wish to consider other treatments for osteoporosis discussed at various visits since 2017)
- Laboratory tests: Ca 9.3 mg/dL, 25 OH Vit D 35 ng/mL, TSH 0.6 mIU/L,

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Question 3

What is the potential cause of this patient's femoral shaft fracture?

A. Vitamin D insufficiency
B. Non-adherence with alendronate therapy
C. Overtreatment with levothyroxine
D. Long-term use of a bisphosphonate

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Question 4

What is the optimal strategy for treating this patient's osteoporosis?

A. Continue calcium and vitamin D only
B. Denosumab every 6 m
C. Romososumab every m for 1 y
D. No treatment; reassess bone density in 2 y

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Case 2 Management

- DXA performed in 2019 and 2021 just prior to the femoral fracture, were compared
- She was offered treatment with denosumab or romososumab, but declined it for over 12 m due to concerns of potential adverse events
- She agreed to treatment with denosumab in 2022 after review of her FRAX scores and researching her treatment options
- The dose of levothyroxine was reduced to 88 mcg QD due to low TSH

Year	L1 T score	Fem neck T score	Forearm T score	FRAX 10-yr probability
2019	-2.5	-2.0	-3.0	No FRAX scores
2021	-1.7	-1.8		MOF 36.3%, Hip fx 21.9%

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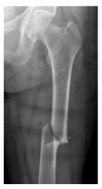
Atypical femur fractures: rare complication of bisphosphonate therapy

- Usually, median treatment for 7 y
- Treatment with bisphosphonates for up to 5y is typically **not** associated with atypical fractures and is not a reason to defer bisphosphonate therapy in women who are at high risk
- Prolonged therapy can lead to oversuppression of bone turnover ("frozen bone") and increased skeletal fragility causing stress fractures
- In a metaanalysis, the risk of atypical fracture was increased in bisphosphonate users (risk ratio 1.70), low absolute risk (3.2-50 cases/100,000 person years)
- Patients have prodromal symptoms, including dull or aching pain in the groin or thigh



Gedmintas L, Solomon DH, Kim SC SO. J Bone Miner Res. 2013;28(8):1729.

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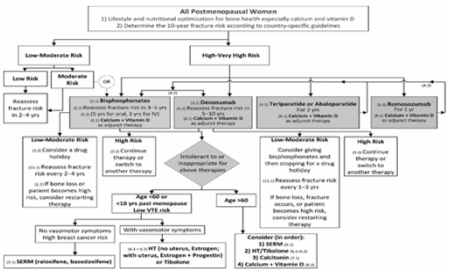
Updated algorithm for management of postmenopausal osteoporosis.

ENDOCRINE SOCIETY



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Case 3
Progressive CKD

- A 76 y-old woman with type 2 diabetes complicated by CKD 5, peripheral neuropathy, anemia, HFpEF, HTN, recurrent UTI, and depression, complained of increasing fatigue and somnolence
- She had not been seen in the clinic for 4 m
- She was cheerful, clinically euthyroid, and did not have any decline in muscle strength. There was no evidence of confusion, or de-compensation of heart failure
- Current medications:
  - Hydralazine 50 mg TID, nifedipine ER, labetolol BID
  - Lisinopril 20 mg QD
  - Furosemide 40 mg PRN edema
  - Gabapentin 300 mg TID
  - Novolin 70/30, 52 U in am and 10 U in pm
  - Sertraline 100 mg QD
  - Trimethoprim sulfamethoxazole BID at least every 2 mth for UTI
- Laboratory tests: eGFR 15 ml/min/1.73 m2 (**was 34, 2 months ago**), Hb 10.5 g/dL, K 4.7 mEq/L, TSH 1.9 mIU/L, A1C 6.6%, U microalb/creat 427 mcg/mg creat,

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Question 5

What is the likely cause of her fatigue and somnolence?

A. Depression
B. Inappropriate dosing of gabapentin
C. Hypoglycemia
D. Decline in renal function

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Case 3 Management

- Metformin was stopped in 2020 after her eGFR dropped to 27 ml/min/1.73 m^2
- Freestyle Libre 2 CGM use initiated after a fall
- CGM review showed
  - Episodes of fasting hypoglycemia (50-70 mg/mL) 2-3 times a week
  - Time in Range 52% (BG range 90-200 mg/dL)
  - Hypoglycemia 18%
- Novolin 70/30 doses reduced to 50 U in am and 6U in pm
- Gabapentin dose reduced to 100 mg BID

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Optimizing medication regimen in advanced CKD (4 and 5)

- Gabapentin dose should be reduced
- Trimethoprim sulfamethoxazole dose should be reduced
- Beers Criteria 2019 Table 6

Medication	Cr CL at which action required	Rationale	Recommendation	Quality of evidence	Strength of recommendation
Trimethoprim-sulfamethoxazole	<30	Increased risk of worsening of renal function and hyperkalemia	Reduce dose if CrCl 15-29 mL/min Avoid if CrCl <15 mL/min	Moderate	Strong
Gabapentin	<60	>95% renally excreted T half 5-7 h Prolonged in CKD	>60 mL/min 30-59: 400-1400 mg/d 15-29: 200-700 mg/d <15: 100-300 mg/d	Moderate	Strong

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Pitfalls in interpretation of A1C: reliability decreased in advanced CKD

A1C can be increased by

Age (insulin resistance)
Race (African American or Hisp)
Hypothyroidism
Splenectomy
Aplastic anemia
Polycythemia
Hb variants
Iron deficiency anemia
Metabolic acidosis/uremia

C. Kim et al. Diabetes Care **April 2010** vol. 33
Peacock et al. Kidney International (2008) **7**

A1C can be decreased by

Anemia
Blood loss, transfusions
Abnormal Hb (hemolysis)
Hemodialysis and Hct <30%
Liver disease
Erythropoetin therapy
Iron supplements

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Case 4

- 86 y.o. female lives alone
- 2 recent admissions
  - Exacerbation of CHF
  - Fall FSBS 69 on admission
- ECF admission
  - Strengthening
  - Prevention of readmissions
  - Social issues
- 1 story house with basement
- 2 children live in town
- She is responsible for most meals
- SLUMS 25/30
- No other healthcare support

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Medications

- Glimepiride 2 mg daily
- Basal Insulin 14 units daily
- SSI 2-4 units with meals
- Atorvastatin 40 mg daily
- ASA 81 mg daily
- Colace 100 mg daily
- Lisinopril 10 mg daily
- Furosemide 40 mg daily
- Hydrocodone/APAP 5/325 mg tid
- NaCL 1 gm daily
- Metoprolol tartrate 25 mg bid

VS

- BP 112/68 P70 R 14 O2 92%
- Weight 154 Dry weight 138
- 3 + edema on exam
- Crackles in lung bases

Labs

Na 132 K 3.8 Co2 29 Cl 98 BUN 24 Cr 1.3 GFR 56

CXR congestion at bases mild cardiomegaly

Echo LVEF 40% no valvular abnormalities

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Question 6

What would you do with the SSI?

A. Continue it
B. Stop it in 3 days
C. Stop it in 5 days
D. Stop it on admission

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2019 Beers Criteria; Endocrine Society

American Geriatrics Society 2019 Beers Criteria Update Expert Panel

Therapeutic category	Rationale	Recommendation	Quality of evidence	Strength
Insulin, sliding scale	Higher risk of hypoglycemia without improvement in hyperglycemia regardless of care setting; in the absence of basal basal insulin	Avoid (More glucose variability Reactive approach)	Moderate	Strong
Glyburide	Higher risk of severe prolonged hypoglycemia in older adults			

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HYPOGLYCEMIA

Table 6.4—Classification of hypoglycemia

	Glycemic criteria/description
Level 1	Glucose <70 mg/dL (3.9 mmol/L) and ≥54 mg/dL (3.0 mmol/L)
Level 2	Glucose <54 mg/dL (3.0 mmol/L)
Level 3	A severe event characterized by altered mental and/or physical status requiring assistance for treatment of hypoglycemia

Reprinted from Agiostratidou et al. (51).

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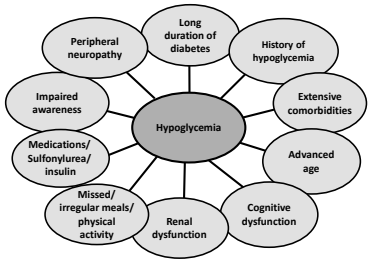
Risk Factors for Hypoglycemia



CVD = cardiovascular disease; VD = vascular disease.

Ahrén B. *Vasc Health Risk Manag.* 2013:9:155–163. Abdelhafiz AH, et al. Aging Dis.,2015;6(2):156–67.

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Impact of hypoglycemia in the elderly

- Hypoglycemia can worsen neuropathic pain
- Likelihood of falls, dizziness can increase
- Cognitive impairment increases the likelihood of hypoglycemia
- **But** hypoglycemia can worsen cognitive impairment
- Increase in cardiovascular events, hospitalization and total mortality; (HR 2.48 [1.41–4.38]) whether clincially mild or severe hypoglycemia
- Mean cost per hypoglycemia episode: **$2602**

Ligthelm J AM Geriatr Soc 2012 Aug;60(8):1564-70. doi: 10.1111.
Pai-Feng Hsu et al. Diabetes Care 2013 Apr; 36(4)

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Question 7

How would you manage her diabetes?

A. Keep the regimen the same
B. Start metformin
C. Stop all current DM meds and start SGLT2 Inhibitor
D. Stop all current DM meds and start GLP1 RA
E. B C and D

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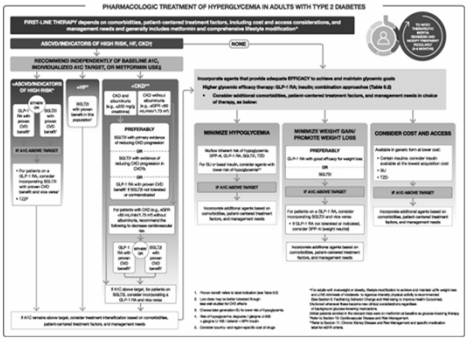

31

COMPREHENSIVE MEDICAL EVALUATION AND ASSESSMENT OF COMORBIDITIES

DECISION CYCLE FOR PATIENT-CENTERED GLYCEMIC MANAGEMENT IN TYPE 2 DIABETES

Standards of Medical Care in Diabetes - 2022

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Question 8

How would you manage her hyponatremia?

A. Continue current course
B. Discontinue salt tablets and start fluid restriction
C. Add spironolactone
D. Increase salt tablets to 1 g three times a day

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Major causes of hyponatremia

Disorders in which ADH levels are elevated
Effective circulating volume depletion
True volume depletion
Heart failure
Cirrhosis
Thiazide diuretics
Syndrome of inappropriate ADH secretion, including reset osmostat pattern
Hormonal changes
Adrenal insufficiency
Hypothyroidism
Pregnancy
Disorders in which ADH levels may be appropriately suppressed
Advanced renal failure
Primary polydipsia
Beer drinker's potomania

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Major Causes of Hyponatremia

Hyponatremia with normal or elevated plasma osmolality
High plasma osmolality (effective osmols)
Hyperglycemia
Mannitol
High plasma osmolality (ineffective osmols)
Renal failure
Alcohol intoxication with an elevated serum alcohol concentration
Normal plasma osmolality
Pseudohyponatremia (laboratory artifact)
High triglycerides
Cholestatic and obstructive jaundice (lipoprotein-X)
Multiple myeloma
Absorption of irrigant solutions
Glycine
Sorbitol
Mannitol

ADH: antidiuretic hormone.

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Evaluation of Hyponatremia

- Good history and physical examination – assess volume status (skin turgor, ocular pressure)
- Medication history (e.g., thiazides, ACEI or ARBs, SSRIs)
- Serum osmolality (measured) to decide tonicity
  - **Effective osmolality = 2Na + 2K + glucose/18 + BUN/2.8 (in millimoles per liter)**
- Urine osmolality (simultaneous)
- Urine sodium (spot sample)-off diuretics for 24h
- Hyperglycemia or renal impairment? (Glucose, BUN, Creat)
- Hypertriglyceridemia or hyperproteinemia? (i.e., rule out pseudohyponatremia)
- Assess clinically whether patient has evidence of hypothyroidism or adrenal insufficiency

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Evaluation…

- If hyperglycemia is present, the serum Na should be corrected for the effect of glucose to exclude hypertonic hyponatremia
- Evaluated for possible isotonic or hypertonic hyponatremia
  - Patients who have had recent surgery utilizing large volumes of electrolyte-poor irrigation fluid (e.g., prostate or intrauterine procedures)
  - Patients treated with mannitol, glycerol or IVIG
  - Patients with lipemic serum
  - Patients with obstructive jaundice
  - Patients with a known plasma cell dyscrasia

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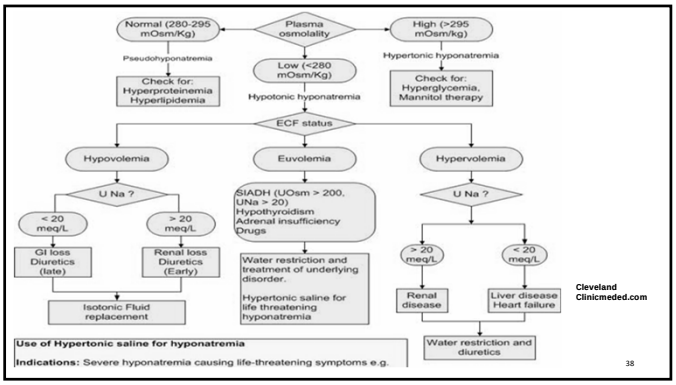

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Question 9

How would you manage the heart failure?

A. Stop the salt tablets
B. Consider switching the ACEi to ARNI
C. Add MRA
D. Add SGLT2i
E. All of the above

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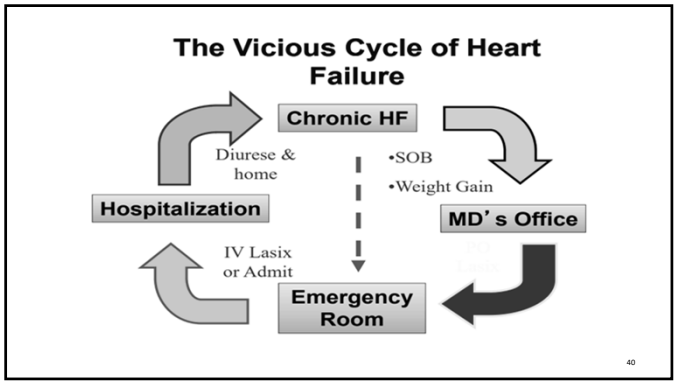
The Vicious Cycle of Heart Failure
Chronic HF
Diurese & home
•SOB
•Weight Gain
Hospitalization
MD's Office
IV Lasix or Admit
Emergency Room
40

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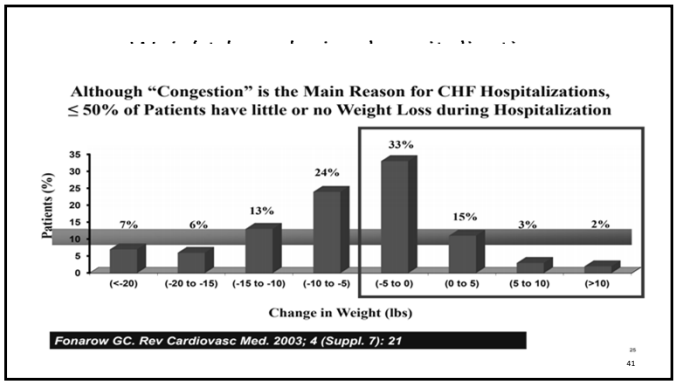
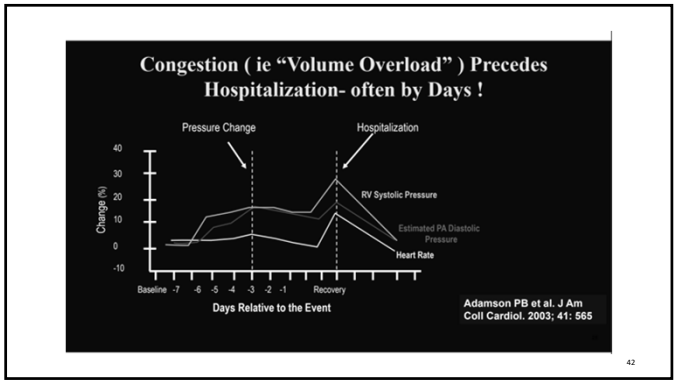

Although "Congestion" is the Main Reason for CHF Hospitalizations, ≤ 50% of Patients have little or no Weight Loss during Hospitalization
Patients (%)
7%
6%
13%
24%
33%
15%
3%
2%
(<-20)
(-20 to -15)
(-15 to -10)
(-10 to -5)
(-5 to 0)
(0 to 5)
(5 to 10)
(>10)
Change in Weight (lbs)
Fonarow GC. Rev Cardiovasc Med. 2003; 4 (Suppl. 7): 21
41

41


Congestion (ie "Volume Overload") Precedes Hospitalization- often by Days !
Pressure Change
Hospitalization
RV Systolic Pressure
Estimated PA Diastolic Pressure
Heart Rate
Change (%)
Baseline -7 -6 -5 -4 -3 -2 -1 Recovery
Days Relative to the Event
Adamson PB et al. J Am Coll Cardiol. 2003; 41: 565
42

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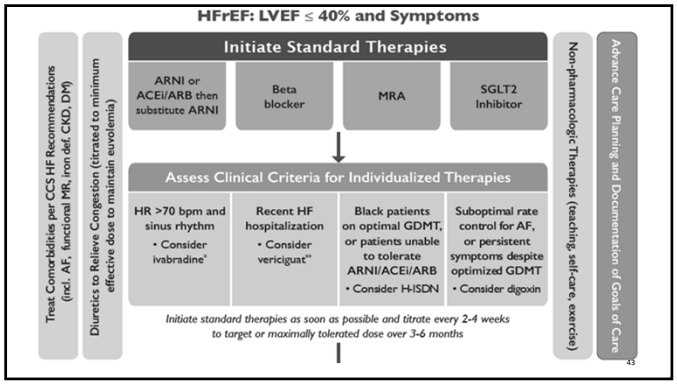
HFrEF: LVEF ≤ 40% and Symptoms
Initiate Standard Therapies
ARNI or ACEi/ARB then substitute ARNI
Beta blocker
MRA
SGLT2 Inhibitor
Assess Clinical Criteria for Individualized Therapies
HR >70 bpm and sinus rhythm
• Consider ivabradine*
Recent HF hospitalization
• Consider vericiguat**
Black patients on optimal GDMT, or patients unable to tolerate ARNI/ACEi/ARB
• Consider H-ISDN
Suboptimal rate control for AF, or persistent symptoms despite optimized GDMT
• Consider digoxin
Initiate standard therapies as soon as possible and titrate every 2-4 weeks to target or maximally tolerated dose over 3-6 months
Treat Comorbidities per CCS HF Recommendations (incl. AF, functional MR, iron def. CKD, DM)
Diuretics to Relieve Congestion (titrated to minimum effective dose to maintain euvolemia)
Non-pharmacologic Therapies (teaching, self-care, exercise)
Advance Care Planning and Documentation of Goals of Care
43

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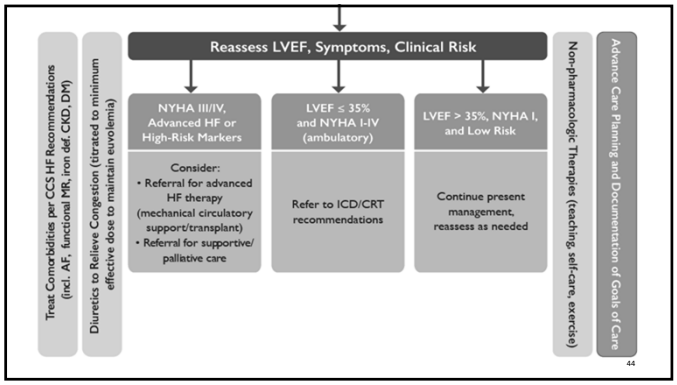
Reassess LVEF, Symptoms, Clinical Risk
NYHA III/IV, Advanced HF or High-Risk Markers
Consider:
• Referral for advanced HF therapy (mechanical circulatory support/transplant)
• Referral for supportive/ palliative care
LVEF ≤ 35% and NYHA I-IV (ambulatory)
Refer to ICD/CRT recommendations
LVEF > 35%, NYHA I, and Low Risk
Continue present management, reassess as needed
Treat Comorbidities per CCS HF Recommendations (incl. AF, functional MR, iron def. CKD, DM)
Diuretics to Relieve Congestion (titrated to minimum effective dose to maintain euvolemia)
Non-pharmacologic Therapies (teaching, self-care, exercise)
Advance Care Planning and Documentation of Goals of Care
44

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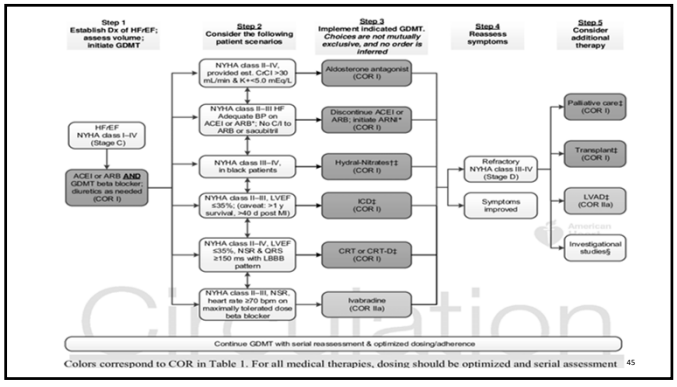
Step 1
Establish Dx of HFrEF; assess volume; initiate GDMT
Step 2
Consider the following patient scenarios
Step 3
Implement indicated GDMT. Choices are not mutually exclusive, and no order is inferred
Step 4
Reassess symptoms
Step 5
Consider additional therapy
HFrEF NYHA class I-IV (Stage C)
ACEI or ARB AND GDMT beta blocker; diuretics as needed (COR I)
NYHA class II-IV, provided est. CrCl >30 mL/min & K+<5.0 mEq/L
Aldosterone antagonist (COR I)
NYHA class II-III HF Adequate BP on ACEI or ARB*; No C/I to ARB or sacubitril
Discontinue ACEI or ARB; initiate ARNI* (COR I)
NYHA class III-IV, in black patients
Hydral-Nitrates†‡ (COR I)
NYHA class II-III, LVEF ≤35%; (caveat: >1 y survival, >40 d post MI)
ICD‡ (COR I)
NYHA class II-IV, LVEF ≤35%, NSR & QRS ≥150 ms with LBBB pattern
CRT or CRT-D‡ (COR I)
NYHA class II-III, NSR, heart rate ≥70 bpm on maximally tolerated dose beta blocker
Ivabradine (COR IIa)
Refractory NYHA class III-IV (Stage D)
Symptoms improved
Palliative care‡ (COR I)
Transplant‡ (COR I)
LVAD‡ (COR IIa)
Investigational studies§
Continue GDMT with serial reassessment & optimized dosing/adherence
Colors correspond to COR in Table 1. For all medical therapies, dosing should be optimized and serial assessment
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Case 5

- 78-year-old female with history of hypertension, CAD, hyperlipidemia, multiple strokes and advanced osteoarthritis. In addition, she has hypothyroidism, anxiety and bipolar disorder. She has a history of hallucinations, and lives by herself. Her daughter is supportive.
- She was admitted to your facility following a right total knee arthroplasty for rehabilitation
- She is a non-smoker and consumes alcohol rarely.
- Vital signs: Blood pressure 117/67 respirations 18/min, temperature 97.9, pulse 97/min, pulse ox 96%
- Labs: Electrolytes normal GFR 110 WBC 8.5 hemoglobin 11.5 hematocrit 34.5 platelets 251

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Medication list

- Cyanocobalamin 1000 mcg daily
- Ondansetron 4 mg every 4 hours as needed
- Potassium chloride 40 mEq daily
- Calcium 500 mg twice a day
- Levothyroxine 137 mcg daily
- Omeprazole 20 mg daily
- Aspirin 81 mg daily
- Pravastatin 20 mg daily
- Hyoscyamine sulfate extended release 0.375 mg every 12 hours
- Oxycodone 5 mg every 4 hours as needed
- Buspirone 10 mg 3 times a day
- Fluoxetine 60 mg daily
- Trazodone 100 mg daily
- Olanzapine 7.5 mg daily
- Tizanidine 4 mg 4 times a day
- Atomoxetine 100 mg daily
- Alprazolam 0.5 mg every 8 hours as needed

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Question 10

Which of the medications cause concern?

A. The combination of a benzodiazepine, a muscle relaxant and an opioid
B. The combination of two activating agents, fluoxetine and atomoxetine and sedating agents, trazodone and alprazolam
C. Antipsychotic in the setting of history of strokes
D. Fluoxetine 60 mg and buspirone 10 mg tid
E. All of the above

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Case 6

- 68-year-old female presented to the hospital with a fall. She sustained right-sided rib fractures. She had a chest tube placed for subcutaneous emphysema.
- She was diagnosed with a urinary tract infection. She had no abdominal pain dysuria or hematuria. She has no fever or chills. Her urine culture grew 10-50,000 E. coli, 10-50,000 Proteus mirabilis and urethral flora. She was treated with cephalexin 500 mg twice a day for 5 days.
- She has a history of constipation, lumbar spondylosis, and is weak on her right side.
- Vital signs are stable
- Labs are stable normal GFR

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Medications

- Ceftin 500 twice a day for 3 more days
- Acetaminophen 650 mg 3 times a day
- Bisacodyl 5 mg enteric-coated daily
- Calcium carbonate 500 mg twice a day
- Citalopram 10 mg daily
- Docusate 100 mg daily
- Polyethylene glycol 17 g daily
- Gabapentin 300 mg 3 times a day
- Ibuprofen 600 mg 3 times a day
- Lidocaine 4% patch to the rib area daily
- Liothyronine 25 mcg daily.
- Lisinopril 10 mg daily
- Methocarbamol 500 mg 3 times a day
- Tramadol 50 mg every 4 hours
- Oxycodone 5 mg every 4 hours as needed

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Question 11

Did she have a urinary tract infection that needed to be treated with an antibiotic?

A. Yes
B. No

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Question 12

How would you treat her constipation?

A. Continue current regimen
B. Discontinue docusate and bisacodyl
C. Increased dose of polyethylene glycol if needed
D. Discontinue all drugs and replaced with linaclotide
E. Minimize use of narcotics
F. All except A

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Ten Medications Older Adults should Avoid or Use with Caution

AGS Health in Aging Foundation

- Non-steroidal anti-inflammatory drugs (caution)
- Digoxin (caution)
- Diabetes drugs: glyburide, chlorpropamide (avoid)
- Muscle relaxants: methocarbamol, cyclobenzaprine (avoid)
- Drugs for insomnia, anxiety: benzos, zolpidem (avoid)
- Anticholinergics: amitriptyline, dicyclomine, etc. (avoid)
- Pain reliever : analgesic meperidine (avoid)
- OTC: diphenhydramine, chlorpheniramine (avoid)
- Antipsychotics, if no psychosis: haloperidol (caution)
- Estrogen pills and patches (avoid)

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The Need to Prescribe Appropriately!

Inappropriate or Over-prescribed	Under-prescribed
Anti-infective agents	ACE inhibitors (diabetes, CKD)
Anticholinergic agents	ACE inhibitors for HF
Benzodiazepines	Angiotensin receptor blockers
H2 receptor antagonists, PPIs	Anticoagulants
Laxatives and stool softeners	Antihypertensives
NSAIDs	Diuretics for hypertension
Sedating antihistamines	ß blockers for MI or heart failure
Tricyclic antidepressants for pain	Bronchodilators
Vitamins and minerals	PPIs or misoprostol with NSAIDs
GI antispasmodics	Statins
Sliding Scale insulin	Vitamin D

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Appropriate prescribing in the elderly

1. Is there an indication for the drug?
2. Is the medication effective for the condition?
3. Is the dosage correct?
4. Are the directions correct?
5. Are the directions practical?
6. Are there clinically significant drug-drug interactions?
7. Are there clinically significant drug-disease/condition interactions?
8. Is there unnecessary duplication with other drugs?
9. Is the duration of therapy acceptable?
10. Is this drug the least expensive alternative compared with others of equal usefulness?

Reproduced from: Hanlon JT, Schmader KE, Samsa GP, et al. A method for assessing drug therapy appropriateness. J Clin Epidemiol 1992; 45:1045. Illustration used with the permission of Elsevier Inc. All rights reserved.

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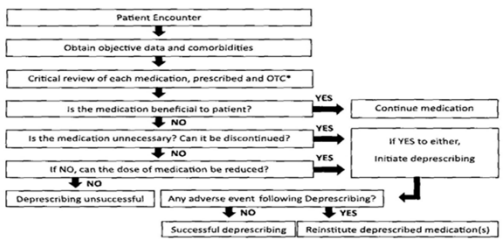
Algorithmic Approach to Deprescribing

T.S. Dharmarajan et al. / JAMDA 21 (2020) 355–360



*OTC refers to Over the Counter

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Deprescribing: Success Can Vary with Drugs

Dharmarajan TS et al. JAMDA. 2020; 21:355-360

Higher Success	Lower Success
Lipid lowering drugs	**Antipsychotic agents**
Multivitamin –minerals, and iron	**Antidepressants**
Proton pump inhibitors	**Laxatives and stool softeners**
Antihistamines	**Thyroid hormones**
Analgesics	**Anxiolytics and hypnotics**

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Choosing Wisely
An initiative of the ABIM Foundation

Choosing Wisely: Some Things Clinicians Should Question

- Do not use antipsychotics as first choice to treat behavioral and psychological symptoms of dementia (AGS)
- Don't use benzodiazepines or other sedative-hypnotics in the old as first choice for insomnia, agitation, delirium (AGS)
- Don't maintain long-term PPI therapy for GI symptoms without an attempt to stop / reduce the PPI at least once per year in most patients (exemption: GI bleeding and Barrett esophagitis) (Canadian Guidelines, 2019)
- Don't prescribe or routinely continue medications for older adults with limited life expectancy without due consideration to individual goals of care, comorbidities, and time-to-benefit for preventive medications (ASCP)

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DISCUSSION

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BREAKING FREE FROM OSTEOPOROSIS

AN INTERDISCIPLINARY APPROACH TO BONE HEALTH

Justin Hess, PT, DPT, OCS
Research Manager
AdventHealth Sports Med & Rehab - Orlando, Florida

Melanie Trigo, PharmD
Consultant Pharmacist
Omnicare, a CVS Health company

Brianna Wynne, MD
Assistant Professor - Geriatrics
University of Florida

Image: Freepik.com

1

LEARNING OBJECTIVES

1. Describe the pathophysiology of osteoporosis and ways to prevent and diagnosis this disease.
2. Assess and screen for vertebral compression fractures.
3. Recognize the various non-pharmacological and pharmacological options for the treatment of osteoporosis.
4. Identify the different therapeutic classes, mechanisms of action, dosages, side effects and contraindications associated with approved drug therapy for the treatment of osteoporosis.
5. Instruct others on safe movement and strengthening options for the frail patient to optimize health and minimize risk of future fractures.

2

OSTEOPOROSIS DIAGNOSIS AND TREATMENT GUIDELINES AND EDUCATIONAL RESOURCES

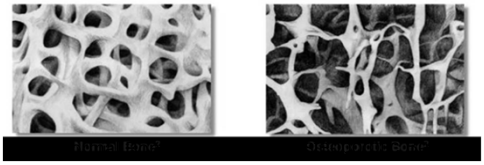
- AACE/ACE (American Assoc Clinical Endo) May 2020
- ACP (American College Physicians) endorsed by AAFP: May 2017
- Bone Health and Osteoporosis Foundation (BHOF, prior NOF) 2022
- The Clinician's Guide to the prevention and treatment of osteoporosis
- FRAX: http://www.shef.ac.uk/FRAX
- University New Mexico. Telementoring Bone Health TeleECHO Clinic. http://www.ofnm.org/project-echo
- Mayo Clinic Shared Decision-Making National Resource Center https://osteoporosisdecisionaid.mayoclinic.org

Complete references in bibliography

3

OSTEOPOROSIS

Bone disease marked by reduced bone strength leading to an increased risk of fractures.



Bone Strength = Bone Mass (density) + Bone Quality (microarchitecture)

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IMPACT OF OSTEOPOROTIC FRACTURES

Over age 50 up to

1/2 women

1/4 men

will break bone due to osteoporosis

300,000 hip fx/yr

1/4 will die within a year

1/4 **end up in nursing homes**

1/2 will need a walking aid

Annual fracture related cost

$57 billion

After a fracture, **Only 1/5** women over 67 **are tested or treated for** osteoporosis

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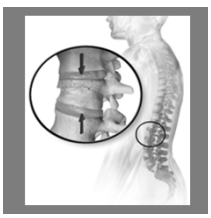
VERTEBRAL FRACTURES : ONLY 1/3 ARE CLINICALLY DIAGNOSED



- Most common osteoporotic fractures
- Wedge fractures are the most common
- Patients with a spine fracture have a 5-fold future risk of another spine fracture and 2-fold risk of a hip fracture
- Pulmonary: 9% decrease in lung capacity per vertebral fracture
- GI: Constipation, early satiety, wt loss
- Psychosocial: depression, social isolation

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WRIST FRACTURES – EARLY WARNING SIGN

- The most common fracture of the upper extremity
- 5 times more common in women than men
- Increased incidence with age
- Associated with an increased risk of additional fragility fractures

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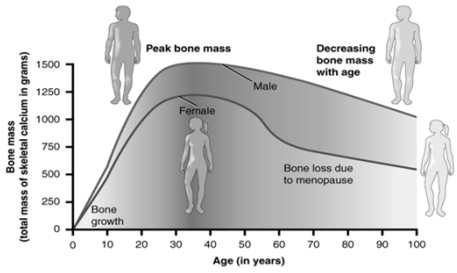
STRONG BONES BEGIN IN CHILDHOOD



8

BONE MINERAL DENSITY TEST (BMD, DEXA) SCREENING RECOMMENDATIONS

USPSTF 2018:

- All women ≥ 65 y (B rec.)
- Younger postmenopausal women at increased risk as determined by a formal clinical risk assessment tool (B rec.)
- Men: Evidence is insufficient to recommend screening in men to prevent osteoporotic fractures (I statement)

Bone Health and Osteoporosis Foundation (BHOF) additionally recommends screening:

- Men ≥ 70 y and younger men with risk factors
- Men and women with a fracture after age 50
- Steroids (≥ 5.0 mg/day ≥ 3 months)

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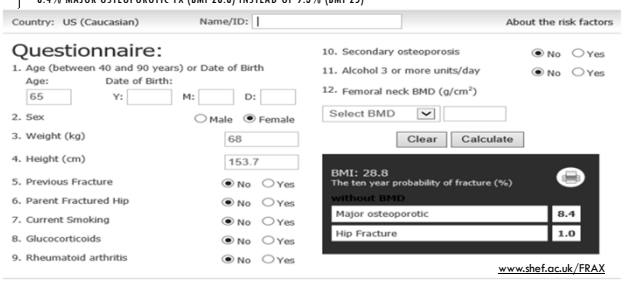
UPDATED FRAX ® RISK ESTIMATE
65 YO WHITE FEMALE W/O MAJOR RISK FACTORS IN U.S.
8.4% MAJOR OSTEOPOROTIC FX (BMI 28.8) INSTEAD OF 9.3% (BMI 25)



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DEXA INTERVAL FOR SCREENING:
SERIAL DEXA INTERVALS FOR OSTEOPOROSIS SCREENING BASED ON INITIAL DEXA AND FRAX 10 YR FRACTURE RISK

Suggested testing interval, years	Initial BMD T score	Initial major osteoporosis fracture risk, %	Initial hip fracture risk, %
<3	-2.0 to -2.4	20+	2.3 to 2.9
3-5	-1.5 to -1.9	15 to 19	1.5 to 2.2
5-10	-1.0 to -1.4	10 to 14	0.8 to 1.4
>10	> 1.0	<10	< 0.8

Leslie WD, Crandal J. Serial Bone Measurement for Osteoporosis Screening. *JAMA*. 2021;326(16):1622-1623. doi:10.1001/jama.2021.9858

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WHO Diagnosis of Low Bone Mass and Osteoporosis by DEXA

	T- score
Normal	Equal to -1.0 or higher
Low Bone Mass (Osteopenia)	Between -1.0 and -2.5
Osteoporosis	Equal to -2.5 or lower
Severe Osteoporosis	Equal to -2.5 or lower with fracture

BHOF Clinician's Guide to Prevention and Treatment of Osteoporosis. 2022

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2020 AACE/ACE DIAGNOSTIC CRITERIA FOR OSTEOPOROSIS IN POSTMENOPAUSAL WOMEN (PMW)

T-score -2.5 or below	→	Lumbar spine, femoral neck, total proximal femur, or 1/3 radius
Low-trauma spine or Hip fracture	→	Regardless of bone mineral density
T-score between -1.0 and -2.5	+	Fragility fracture of proximal humerus, distal forearm, pelvis
T-score between -1.0 and -2.5	+	High FRAX ® fracture probability based on country-specific thresholds.

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Secondary causes (1 of 4)

Lifestyle Factors		
Alcohol abuse	Excessive thinness	Excessive vitamin A
Frequent falling	High salt intake	Immobilization
Inadequate physical activity	Low calcium intake	Smoking (active or passive)
Vitamin D insufficiency/deficiency		
Genetic Diseases		
Cystic fibrosis	Ehlers-Danlos	Gaucher's disease
Hemochromatosis	Hypophosphatasia	Hypophosphatemia
Marfan syndrome	Menkes steely hair syndrome	Osteogenesis imperfecta
Parental hip fracture	Porphyria	Homocystinuria

Note: items in bold are the most commonly undiagnosed disorders

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Secondary causes (2 of 4)

Hypogonadal states		
Anorexia nervosa	Androgen insensitivity	Female athlete triad
Hyperprolactinemia	Hypogonadism	Panhypopituitarism
Premature menopause (<40)	Turner's & Klinefelter's syndromes	
Endocrine disorders		
Cushing's syndrome	Diabetes mellitus (type 1 & 2)	**Hyperparathyroidism**
Obesity	Thyrotoxicosis	
Gastrointestinal disorders – malabsorption syndromes		
Celiac disease	Bariatric surgery / Gastric bypass	Gastrointestinal surgery
Inflammatory bowel disease (e.g. Crohn's, ulcerative colitis)	Pancreatic disease	Primary biliary cirrhosis
Hematologic disorders		
Hemophilia	Leukemia and lymphomas	Monoclonal gammopathies
Multiple myeloma	Sickle cell disease / thalassemia	Systemic mastocytosis

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Secondary causes (3 of 4)

Rheumatologic and autoimmune diseases		
Ankylosing spondylitis	Rheumatoid arthritis	Systemic lupus
Other rheumatic and autoimmune diseases		
Neurological and musculoskeletal risk factors		
Epilepsy	Muscular dystrophy	Multiple sclerosis
Parkinson disease	Spinal cord injury	Stroke
Miscellaneous conditions and disease		
HIV / AIDS	Amyloidosis	Chronic metabolic acidosis
Chronic obstructive lung disease	Congestive heart failure	Depression
Renal disease (CKD 3 – ESRD)	**Hypercalciuria**	Hyponatremia
Idiopathic scoliosis	Post-transplant bone disease	Sarcoidosis
Weight loss		

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Secondary causes (4 of 4)

Medications		
Aluminum-containing antacids	Androgen deprivation therapy	Anticoagulants (unfractionated heparin)
Anticonvulsants (e.g. phenobarbital, phenytoin, valproate)	Aromatase inhibitors	Barbiturates
Chemotherapeutic drugs	Cyclosporine A and tacrolimus	Glucocorticoids (≥ 5 mg/day prednisone or equivalent for ≥ 3 months)
GnRH (Gonadotropin releasing hormone) agonists and antagonists	Depot medroxyprogesterone acetate (Depo-Provera)	Methotrexate
Parenteral nutrition	Proton pump inhibitors	SSRIs
Tamoxifen (premenopausal use)	Thiazolidinediones (e.g. pioglitazone and rosiglitazone)	
Thyroid replacement hormone (in excess)		

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LABS TO CONSIDER FOR SECONDARY CAUSES

- Chemistry (calcium, renal, phosphorus)
- Liver function tests
- CBC
- TSH, iPTH
- 25(OH)Vitamin D
- Testosterone younger men
- 24-hour urine
  - calcium, Na, creatinine

Selected cases:

- SPEP/UPEP
- Celiac disease (tTG)
- Iron and ferritin
- Homocysteine
- Tryptase
- Prolactin
- Bone turnover markers

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ADVISE UNIVERSAL RECOMMENDATIONS FOR BONE HEALTH REGARDLESS OF BONE DENSITY

- Recommend daily calcium (ideally from diet)
- Vitamin D 800-1000 IU daily
- Advocate smoking cessation and limited alcohol intake
- Advocate regular exercise for strength, posture and balance
- Fall Prevention

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VITAMIN D REPLENISHMENT AND SUPPLEMENTATION

- If serum 25[OH]D ≤ 20, replenish with Vitamin D 5000 units daily for 8-12 weeks to achieve level ≥ 30

- Ancillary VITAL study – no significant improvement in fracture rate with vit D supplementation in generally healthy older adults (did NOT include institutionalized adults)

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CONSENSUS RECOMMENDATIONS FOR RESIDENTS IN CARE FACILITIES

- Fall risk assessment
- Multifactorial interventions to prevent falls
  - Medication review
  - Environment/assistive devices or technology
  - Exercise to include strength, balance, and functional components
  - Staff and caregiver education
- Vitamin D supplementation should be considered
- Adequate calcium intake

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EXERCISE AND PHYSICAL THERAPY FOR BONE HEALTH

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EXERCISE & AGING: THE PROBLEM…

Tendency for increased sedentary behaviors with increase in age

Comorbidities: Sarcopenia, osteopenia developing into osteoporosis, obesity, diabetes etc.

Lack of healthcare resources, underserved communities

Lack of structured exercise programs in long term care settings

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POSTURE & AGING: ANOTHER PROBLEM…

20-40% of older adults with hyperkyphosis
= **At least** a 40-degree curve

Effects of Vertebral Compression Fractures (VCFs)

Increased (abnormal) loading on lumbar vertebral bodies

Slower gait, impaired balance, increased postural sway

= increased risk for fall

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WOLFF'S LAW

Bones naturally will respond and remodel to the stresses and demands applied to them*

- Stimulus **has** to be above and beyond status quo

Bone remodeling: resistance or compression

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RESISTANCE

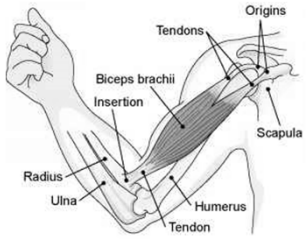
Greater resistance applied

=

Greater tendon pull on bone

Weights, bands

(body weight) sit to stands/active range of motion



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COMPRESSION

Weight-bearing/impact on bones

Stepping, walking, aerobics classes, stairs

Sitting upright/standing (if highly frail)

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PHYSICAL THERAPY: FOR SPINE SAFETY AND BONE HEALTH

Exercise
- Resistance training
- Aerobic
- Impact

Posture – protect spine during ADLs and exercise

Balance – Fall prevention

Home exercise program/Wellness Program

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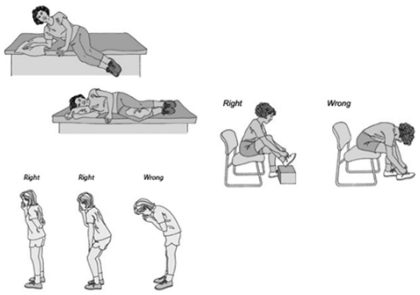
EXAMPLES OF POSTURE TRAINING



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EXAMPLE EXERCISES FOR HIGH LEVEL

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EXAMPLE EXERCISE FOR FRAIL

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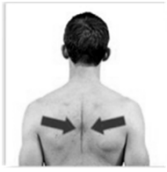
LET'S MOVE FOR POSTURE!
PRACTICE SCAPULAR RETRACTION



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LET'S MOVE FOR POSTURE!
PRACTICE THORACIC EXTENSION

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HOW DO I REFER TO PHYSICAL THERAPY?

Write **"Eval and Treat"** on referral for physical therapy

Common ICD 10 Codes:

- **M81.0 Age-related osteoporosis without current pathological fracture**
- **M85.8 Other specified disorders of bone density and structure (osteopenia)**
- R26.8 Other abnormalities of gait and mobility
- R26.9 Unspecified abnormalities of gait and mobility
- M62.81 Muscle weakness (generalized)

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HOW DO I REFER TO PHYSICAL THERAPY CONT'D

- Medicare covers physical therapy for ICD 10 diagnoses of:
- Osteopenia (M85.80) or Osteoporosis (M81.0)

- Order: Physical Therapy to evaluate and treat, instruct in spine safe posture and exercises to optimize strength and balance and minimize fall risk.

- Vertebral fractures - physical therapy decreases risk of subsequent vertebral fractures

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THE PT EVALUATION

One-on-one session with patient

Reviews medical intake, including past medical history, meds, co-morbidities with subjective questioning

Motivational interviewing, assessing for yellow flags including fear of falling & kinesiophobia

- Systems-level & neuro-screen for red flags

Balance, strength/power and posture assessment

Differential MSK evaluation for addt'l ortho. Complaints as needed

Home environment & safe assistive device use

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FYI…ON THE PLAN OF CARE (POC)

Following PT evaluation, POC will be faxed to you for signature
- **Must be signed** for Medicare
- 2022 Medicare = $2,150 for PT and Speech combined
- Approx. ~ 25-28 sessions
- No longer a hard cap – but must be medically necessary

Typically 2x/week for 4-6 weeks
- ~45min to 1 hour
- Average of 10-12 visits for bone health
- More visits allowed for addt'l ortho complaints or more complex

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HELPFUL PATIENT RESOURCES

- Bone Health Osteoporosis Foundation (BHOF)
  Osteoporosis exercise for strong bones
- CDC.Gov
  Osteoporosis or low bone mass in older adults
- Harvard Health
  Effective Exercise for osteoporosis
- Bones.NIH.gov
  Exercise for Your Bone Health

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https://bonehealthandosteoporosis.org/wp-content/uploads/2016/05/Safe-Yoga-NOF-Flyer-2016.pdf

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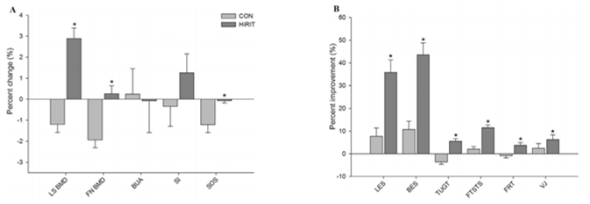

THE LIFTMOR RANDOMIZED CONTROLLED TRIAL (2017, 2018)
BACK TO EXERCISE: THE RESEARCH

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Exercise interventions	Mean difference between groups for change from baseline (95% CI), g/cm^2		
	Lumbar spine BMD (79 trials, n = 6912)	Femoral neck BMD (49 trials, n = 4768)	Total hip BMD (22 trials, n = 1793)
Aerobic	0.05 (0.02 to 0.07)	0.05 (0.02 to 0.08)	0.03 (0.00 to 0.07)
Resistance	0.07 (0.03 to 0.11)	0.05 (0.00 to 0.09)	0.08 (0.03 to 0.12)
Combination†	0.04 (0.01 to 0.07)	0.04 (0.00 to 0.07)	0.02 (−0.02 to 0.06)
Whole-body vibration	0.03 (−0.02 to 0.08)	0.06 (0.02 to 0.10)	0.02 (−0.05 to 0.09)
Mind-body‡	0.12 (0.08 to 0.16)§	0.11 (0.08 to 0.15)‖	0.01 (−0.10 to 0.11)

Mind-body exercise had the highest probability of being the best intervention for improving lumbar spine BMD (94%) and femoral neck BMD (95%); resistance exercise had the highest probability of being the best intervention for improving total hip BMD (81%).

BMD = bone mineral density; other abbreviations defined in Glossary.
*Includes direct and indirect treatment comparisons.
†≥2 types of exercise.
‡For example, tai chi, yoga, and dance.
§Mind-body exercise improved lumbar spine BMD vs. combination exercise, aerobic exercise, and whole-body vibration.
‖Mind-body exercise improved femoral neck BMD vs. combination, resistance, and aerobic exercise.

IN OSTEOPOROSIS OR OSTEOPENIA, EXERCISE INTERVENTIONS IMPROVE BMD; EFFECTS VARY BY EXERCISE TYPE AND BMD SITE (2022)
THE RESEARCH CONT'D

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EFFECT OF EXERCISE ON BONE MINERAL DENSITY AMONG PATIENTS WITH OSTEOPOROSIS AND OSTEOPENIA: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS (2022)
THE RESEARCH CONT'D

N= 97 studies (8502 participants with osteopenia or osteoporosis)

Comparing aerobic, resistance, combined, whole body vibration or mind-body exercise on BMD of lumbar, femoral neck, and total hip to groups without exercise

Mind-body exercise = #1 improving lumbar and femoral neck BMD
- Eg: Tai Chi, wuqinxi, qigong. Half squat posture, stability – slow movements including arms

Resistance = #1 improving total hip BMD (significant improvement in all groups compared to no exercise)

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N= 21 studies
(1840 participants with primary osteoporosis)

Significantly greater lumbar & hip BMD gains in groups undergoing kinesitherapy + antiosteoporosis meds vs. meds alone

THE EFFECT OF KINESITHERAPY ON BONE MINERAL DENSITY IN PRIMARY OSTEOPOROSIS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS (2020)
THE RESEARCH CONT'D

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PHARMACOLOGY

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CALCIUM

- Good for treatment or prevention of osteoporosis and healthy bone lifestyle at any age
- Used when dietary intake is poor or insufficient
- Helps achieve higher bone mass index in adulthood
- Slightly increases BMD
- Constipation, bloating, kidney stones
- Upper daily limit is 2000 mg
- Calcium RDA
  - >70 years & women 51-70 years – 1200 mg
  - 19-70 years – 1000 mg
  - <19 years – 1300 mg

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CALCIUM SUPPLEMENTATION

- Calcium carbonate
  - 40% of elemental calcium
  - Require stomach acid for absorption should be taken with food
- Calcium citrate
  - 20% of elemental calcium
  - Absorbed equally well on an empty stomach
  - Alternative for patients with achlorhydria, IBS, absorption disorders, and on PPIs
- Daily doses should be divided into 2-3 doses
- Maximum single dose of 600 mg of elemental calcium – more will not be absorbed
- Cardiovascular disease risk linked with calcium supplementation
  - Conflicting data

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DRUG INTERACTIONS WITH CALCIUM

Drug/micronutrient	Effect	Recommendation
Iron, Zinc, Magnesium	Calcium inhibits nutrients absorption	Separate dose at least 2 hours
Corticosteroids	Inhibits calcium absorption from intestine	Consider calcium supplementation
H2RAs & PPI's	Decrease absorption of calcium carbonate	Consider using calcium citrate
Tetracycline's & Fluroquinolones	Calcium decreases antibiotic absorption	Take 2 hrs before or 6 hrs after antibiotic
Phenytoin, carbamazepine, phenobarbital	Decreases calcium absorption by increasing metabolism of vitamin D	Consider calcium and vitamin D supplementation

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VITAMIN D

- Facilitates calcium absorption
- Best choice of vitamin D intake is increasing dietary vitamin D
- Vitamin D RDA
  - >70 years – 800 IU (20 mcg)
  - 14-20 years – 600 IU (15 mcg)
- Supplements
  - Vitamin D3 (Cholecalciferol)
    - Form produced in humans
  - Vitamin D2 (Ergocalciferol)
    - Derived from plant sources
- Upper limits for vitamin D intake is 4000 units/day for adults

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VITAMIN D LEVELS

- Best index of vitamin D in our body
- Low levels of vitamin D is associated with a high risk of fractures
- Vitamin D2 or D3 50,000 units weekly or 7000 units daily x 5-8 weeks to raise serum 25-hydroxyvitamin D to 30 ng/mL
- Vitamin D2 or D3 1000 to 2000 units/day maintenance

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TREATMENT OPTIONS

ANTIRESORPTIVE AGENTS	ANABOLIC AGENTS
• BISPHOSPHONATES • RANKL • CALCITONIN • ESTROGEN • SERMS • TSEC	• PTH ANALOGS • SCLEROSTIN INHBITOR

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FDA APPROVED DRUGS FOR OSTEOPOROSIS

Bisphosphonates
Alendronate
Ibandronate
Risedronate
Zoledronic acid
RANKL inhibitor
Denosumab
Estrogen-related therapies
Estrogen
Raloxifene
Conjugated estrogen/Bazedoxifene
Calcitonin Salmon
Calcitonin
Parathyroid hormone analog
Abaloparatide
Teriparatide
Sclerostin inhibitor
Romosozumab

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BISPHOSPHONATES

	Fracture Reduction		
	Hip	**Vertebral**	**Non-Vertebral**
Alendronate	Yes	Yes	Yes
Ibandronate	No	Yes	No
Risedronate	Yes	Yes	Yes
Zoledronic Acid	Yes	Yes	Yes

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BISPHOSPHONATES

Alendronate

Ibandronate

Risedronate

- 1st line therapy for treatment of osteoporosis
- Provides greatest fracture risk reduction and BMD increase
- Inhibit activity and shorten lifespan of osteoclasts
- Approved for:
  - Prevention and treatment of postmenopausal osteoporosis
  - Treatment to increase bone mass in men with osteoporosis
  - Treatment of osteoporosis in men and women taking glucocorticoids

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BISPHOSPHONATES

Alendronate

Ibandronate

Risedronate

- Administration
  - Must remain upright for at least 30 minutes (alendronate) - 60 minutes (ibandronate, risedronate) and before eating, drinking, or taking other medications

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BISPHOSPHONATES

Zoledronic Acid

- Approved for:
  - Prevention and treatment of postmenopausal osteoporosis
  - Treatment to increase bone mass in men with osteoporosis
  - Treatment of osteoporosis in men and women taking glucocorticoids
  - Prevention of new fractures in patient who have recently had a low trauma hip fracture
- 5 mg/100 mL IV yearly (over 15-30 minutes)

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BISPHOSPHONATES

- Contraindications
  - Estimated CrCL <35 mL/min
  - Low calcium and vitamin D levels – must be corrected
- Side effects
  - Gastrointestinal issues – difficulty swallowing, esophageal inflammation
  - Musculoskeletal pain
  - Hypocalcemia
  - Atypical femur fracture (AFF)
  - Osteonecrosis of the jaw (ONJ)
- Reevaluate duration of therapy after 5 years for those at <u>not</u> at very-high risk of fracture or after 10 years for those originally at very high risk but now at high risk

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OSTEONECROSIS OF THE JAW (ONJ)

- Considered a disruption of vascular supply or avascular necrosis with exposure of the jaw bones for >8 weeks
- More common with:
  - IV vs oral bisphosphonates
  - Longer duration of therapy (>2 years)
- Risk factors
  - Older age, cancer, concomitant corticosteroids, estrogen, chemotherapy, diabetes, anemia, smoking, poor oral hygiene, periodontitis, dentures, and invasive dental procedures
- American Dental Association recommends
  - Routine dental care and good oral hygiene
  - Major dental work should be done before starting treatment
  - If procedure is needed during treatment, use clinical judgement

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BROAD SPECTRUM BISPHOSPHONATES

Alendronate	
Osteoporosis treatment in women and to increase bone mass in men	70 mg weekly 10 mg daily
Prevention of osteoporosis in women	35 mg weekly 5 mg daily
Glucocorticoid induced osteoporosis	5 mg daily 10 mg daily for post menopausal women not receiving estrogen

Risedronate	
Osteoporosis treatment and prevention in women	150 mg monthly 35 mg weekly 5 mg daily
To increase bone mass in men	35 mg weekly
Glucocorticoid induced osteoporosis	5 mg daily

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IBANDRONATE

Osteoporosis treatment and prevention in women	150 mg monthly

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BISPHOSPHONATE HOLIDAY

- Bisphosphonate Holiday = temporary suspension of therapy up to 5 years
- Rationale
  - May reduce risk of ONJ or AFF
  - Antifracture benefits will be conferred for some period of time
- Modest fracture risk – T-score > -2.5 w/no fracture
  - After 3 years of IV therapy OR 5 years oral therapy
- High fracture risk – T-score < -2.5 and/or recent fracture
  - Consider continuation of treatment up to 10 years with oral therapy OR 6 years with annual IV zoledronic acid

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DENOSUMAB

- RANKL inhibitor – inhibits osteoclast formation, maintenance, and survival thereby reducing bone resorption and turnover
- Indicated for:
  - Treatment in men and women with or without osteoporosis at high risk for fracture
  - Treatment in patients who have failed or intolerant to other osteoporosis therapy
  - Treatment in glucocorticoid induced osteoporosis
  - To increase bone mass in men receiving androgen deprivation therapy for nonmetastatic prostate cancer and in women receiving adjuvant aromatase inhibitor therapy for breast cancer
- 60 mg SQ every 6 months
  - Discontinuation is associated with rapid bone loss
  - No dosage reductions in renal dysfunction

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DENOSUMAB

- Reduces vertebral fractures by 68% at 1 year, hip fractures by 40% at 3 years, and non vertebral fractures by 20% at 3 years
- Long-term 7-year risk fracture reduction:
  - 48% all upper limb fractures
  - 43% forearm and wrist
  - 58% humerus
- Side effects
  - Hypocalcemia
  - AFF
  - ONJ
  - Infection

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	Fracture Reduction		
	Hip	**Vertebral**	**Non-Vertebral**
Abaloparatide	No	Yes	Yes
Teriparatide	No	Yes	Yes
Romosozumab	Yes	Yes	Yes

ANABOLIC THERAPY

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ABALOPARATIDE

- PTH synthetic analog
- Stimulates bone formation
- Treatment of osteoporosis in postmenopausal women at high risk for fracture or failure/intolerance to other available osteoporosis therapy
- 80 mcg SQ daily in the periumbilical area not to exceed 24 months
  - Discontinuation results is associated with rapid bone loss
  - No dosage reductions in renal dysfunction
- Side effects
  - Leg cramps, nausea, and dizziness
  - Osteosarcoma
  - Hypercalcemia

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TERIPARATIDE

- PTH synthetic analog
- Stimulates bone formation
- Approved for the following:
  - Treatment of osteoporosis in men and postmenopausal women
  - Treatment of glucocorticoid induced osteoporosis in men and women
- 20 mcg SQ daily
  - Discontinuation results is associated with rapid bone loss
  - No dosage reductions in renal dysfunction
- Side effects
  - Transient orthostatic hypotension
  - Osteosarcoma
  - Hypercalcemia

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ROMOSOZUMAB

- Sclerostin inhibitor
- Increases new bone formation and decreasing bone resorption
- Approved for treatment for osteoporosis in postmenopausal women
- 210 mg (2 injections of 105 mg) SQ monthly x 12 months
  - No dosage reductions in renal dysfunction
- Side effects
  - Increased risk for MI, stroke, and CV death [Black Box]
  - Hypocalcemia
  - AFF
  - ONJ

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ESTROGEN-RELATED THERAPIES

Estrogen/Hormone Replacement Therapy

- Approved for prevention of osteoporosis
- Rapid bone loss after discontinuation
- Side effects – biliary issues, breast cancer, endometrial hyperplasia cancer, MI, stroke, PE, DVT

Raloxifene

- Estrogen agonist/antagonist (selective estrogen receptor modulator – SERM)
- Approved for prevention and treatment of osteoporosis in women
- 60 mg PO daily
  - No dosage adjustment in renal dysfunction
- Side effects – DVT, hot flashes, leg cramps

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OTHER AGENTS

Calcitonin

- Prevents bone breakdown
- Reduces vertebral fracture occurrence ~30% in those with prior vertebral fractures
- Reserved for women in whom alternative treatments are not suitable
- Approved for treatment of osteoporosis in postmenopausal women who are at least 5 years following menopause
- 1 spray (200 units) intranasally daily, alternate nostrils OR 100 units SQ/IM every day or every other day
- Side effects - rhinitis, epistaxis, cancer risk

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ESTROGEN-RELATED THERAPIES

Conjugated Estrogen/Bazedoxifene

- Approved the prevention of osteoporosis in women after menopause who have an intact uterus
- 0.45 mg/20 mg PO daily
- Rapid bone loss upon discontinuation
- Side effects – endometrial cancer, stroke, DVT, dementia [Black Box], muscle spasms, dyspepsia, upper abdominal pain, oropharyngeal pain

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TREAT TO TARGET MANAGEMENT RECOMMENDATIONS

Risk stratification before initiating therapy

Site specific vulnerabilities

Speed of effect onset

Postmenopausal Osteoporosis Treatment Guidance	
Low Risk No previous spine/hip fracture Tscore >1 FRAX score below treatment threshold	Reassess fracture risk in 2-4 years
Moderate Risk No previous spine/hip fracture Tscore -1.0 and -2.5 FRAX score below treatment threshold	
High Risk Prior spine/hip fracture Tscore -2.5 or less FRAX 10 yr fracture risk above treatment threshold	Initial - Bisphosphonate (Alendronate, Risedronate, Zoledronic acid) Alternative - Denosumab Alternative - Raloxifene or Bazedoxifene (in women high risk of breast cancer) Alternative - Estrogen (in women with a low risk in DVT in which bisphosphonates and denosumab are not appropriate) Alternative - Calcitonin nasal spray (in those who cannot tolerate other therapies)
Very High Risk Multiple spine/hip fractures Tscore -2.5 or less	Teriparatide OR Abaloparatide x 2 years OR Romosozumab x 1 year Should be followed with antiresorptive therapy

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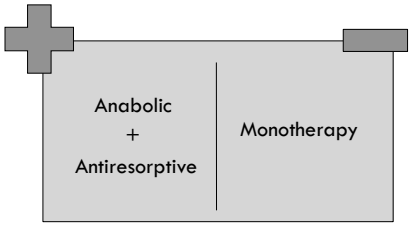
COMBINATION THERAPY



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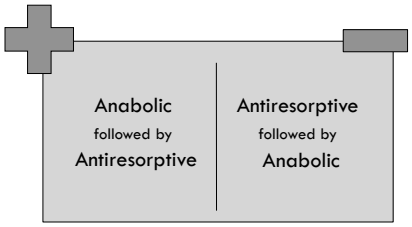
SEQUENTIAL THERAPY



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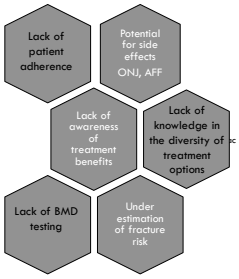
OSTEOPOROSIS TREATMENT GAP



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IMPROVING PATIENT ADHERENCE

- 25-30% of osteoporosis patients do not start taking their prescribed medication
- 50% or more do not continue treatment after 1 year
- 30% higher incidence of fracture in non adherent versus adherent patients
- Patients may unintentionally fail to initiate treatment:
  - Forgetfulness
  - Complexity of treatment regimen
  - Drug affordability
- Patients may intentionally fail to initiate treatment:
  - Limited knowledge of osteoporosis
  - Fear of side effects
  - General distrust of physician or medication
  - Lack of belief in the need for the medication and/or it's effectiveness (i.e. silent disease)

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CASE STUDY #1

SM is a 66-year-old white female who sustained a fall. Xray of right hip and leg note no fractures but reported signs of osteoporosis of hip. SM BMD T-score is -2.6 at the hip and -2 at the spine. FRAX score indicates she has a 10-year probability of a major osteoporotic fracture of 45% and hip fracture of 19%. SM has a medical history of HTN and RA for which she takes HCTZ 25 mg daily and MTX 20 mg qweekly. She also reports taking naproxen 500 mg bid but no other OTC medications.

What recommendations regarding pharmacologic treatment would you provide to SM to manage her osteoporosis?

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CASE STUDY #2

AP is a 77-year-old postmenopausal white female and has just received a diagnosis of osteoporosis by DEXA with a T-score of -2.69 at the spine and -2 at the femoral neck. She has a FRAX score indicating a 10-year probability of major osteoporotic fracture of 11% and hip fracture of 3.4%. AP has comorbid DM2, GERD, and HTN. She also has a history of severe chronic lower-back pain, which makes it difficult for her to stand or sit upright for extended periods. She is taking sitagliptin 50 mg daily, pantoprazole 40 mg bid, lisinopril 10 mg daily, celecoxib 100 mg bid, and pregabalin 150 mg daily. AP has normal renal and liver functions.

What recommendations would you provide to AP to manage her osteoporosis and reduce the risk of fractures?

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SUMMARY

- Actively counsel patients on the prevention of osteoporosis
- A fracture is a sign of osteoporosis, evaluate pts ≥ 50 with fracture
- Bone density testing and FRAX score can identify patients' fracture risk
- Medications reduce risk of fractures, some within 1 yr
- Encourage patients to exercise to decrease their fracture and fall risk

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THANK YOU!

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REFERENCES

- Bone Health and Osteoporosis Foundation (BHOF), Bonehealthandosteoporosisfoundation.org
- Camacho P, et al. AACE/ACE Clinical Practice Guidelines for the Diagnosis and Treatment of Postmenopausal Osteoporosis-2020 update. https://doi.org/10.4158/GL-2020-0524SUPPL
- Ethel S. Siris; et al. Bone Mineral Density Thresholds for Pharmacological Intervention to Prevent Fractures. Arch Intern Med. 2004;164(10):1108-1112.
- Kanis JA, on behalf of the World Health Organization Scientific Group. Assessment of osteoporosis at the primary health care level. WHO Collaborating Centre for Metabolic Bone Diseases, University of Sheffield 2007.
- LeBoff MS, Greenspan S, et al. The clinician's guide to prevention and treatment of osteoporosis. *Osteoporos Int* (2022).https://doiorg/10.1007/s00198-021-05900-y
- Mayo Clinic Shared Decision Making National Resource Center. http://shareddecisions.mayoclinic.org/decision-aid-information
- National Committee for Quality Assurance. HEDIS & Performance Measurement. www.ncqa.org/HEDISQualityMeasurement.aspx National Institute of Health.
- Office of the Surgeon General (US) (2004) Bone health and osteoporosis: a report of the Surgeon General. Office of the Surgeon General (US), Rockville (MD). Available from: http://www.ncbi.nlm.nih.gov/books/NBK45513

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REFERENCES

- Qaseem A, et al. Treatment of low bone density or osteoporosis to prevent fractures in men and women: a clinical practice guideline update from the American College of Physicians. Ann Intern Med. 2017 Jun 6;166(11):818-839. PMID: 28492856
- Shepstone L, et al. SCOOP Study Team. Screening in the community to reduce fractures in older women (SCOOP). Lancet. 2018:391(10122):741-747. doi:10.1016/S0140-6736(17)32640-5.
- U.S. Preventive Services Task Force. Interventions to Prevent Falls in Community-Dwelling Older Adults. *JAMA*. 2018;319(16):1696-1704. doi:10.1001/jama.2018.3097
- U.S. Preventive Services Task Force. Vit D, calcium or combined supplementation for Primary Prevention of Fractures in Community-dwelling Adults. JAMA. 2018;319(15):1592-1599. doi:10.1001/jama.2018.3185
- U.S. Preventive Services Task Force. Screening for Osteoporosis: U.S. Preventive Services Task Force recommendation statement. JAMA. 2018;319(24):2521-2531.doi:10.1001/jama2018.7498

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REFERENCES

- Bansal S, et al. Exercise for Improving Age-Related Hyperkyphotic Posture: A Systematic Review. *Archives of PMR*. 2014;95(1):129-140. doi:10.1016/j.apmr.2013.06.022
- Benedetti MG, Furlini G, Zati A Letizia Mauro G. The Effectiveness of Physical Exercise on Bone Density in Osteoporotic Patients. *Biomed Res Int*. 2018; 2018: 1-10. https://ovidsp.ovid.com/ovidweb.cgi?&T=JS&PAGE=reference&MODE=ovidclassic&CSC=y&NEWS=n&D=medall&SEARCH=30671455.ui. doi:10.1155/2018/4840531
- Gomez-Bruton A, Montero-Marín J, González-Agüero A, et al. The Effect of Swimming During Childhood and Adolescence on Bone Mineral Density: A Systematic Review and Meta-Analysis. *Sports Medicine*. 2015;46(3):365-379. doi:10.1007/s40279-015-0427-3.
- Hong AR Kim SW. Effects of Resistance Exercise on Bone Health. *Endocrinol Metab (Seoul)*. 2018; 33 (4): 435-444. https://ovidsp.ovid.com/ovidweb.cgi?&T=JS&PAGE=reference&MODE=ovidclassic&CSC=y&NEWS=n&D=medall&SEARCH=30513557.ui. doi:10.3803/EnM.2018.33.4.435.
- Sanchez-Trigo H, Rittweger J Sañudo B. Effects of non-supervised exercise interventions on bone mineral density in adult women: a systematic review and meta-analysis. *Osteoporos Int*. 2022; 33 (7): 1415-1427. https://doi.org/10.1007/s00198-022-06357-3. doi:10.1007/s00198-022-06357-3.

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REFERENCES

- Wang S, Li S, Xie X Xie J. The Effect of Kinesitherapy on Bone Mineral Density in Primary Osteoporosis: A Systematic Review and Meta-Analysis of Randomized Controlled Trial. *Evid Based Complement Alternat Med*. 2020; 2020. https://ovidsp.ovid.com/ovidweb.cgi?&T=JS&PAGE=reference&MODE=ovidclassic&CSC=y&NEWS=n&D=medall&SEARCH=32831867.ui. doi:10.1155/2020/5074824.
- Watson S, Weeks B, Harding A, Horan S, Beck B, Watson S, et al. High-Intensity Resistance and Impact Training Improves Bone Mineral Density and Physical Function in Postmenopausal Women With Osteopenia and Osteoporosis: The LIFTMOR Randomized Controlled Trial. *J Bone Miner Res*. 2019; 34 (3): 572. https://ovidsp.ovid.com/ovidweb.cgi?&T=JS&PAGE=reference&MODE=ovidclassic&CSC=y&NEWS=n&D=medall&SEARCH=30861219.ui. doi:10.1002/jbmr.3659.
- Wilhelm M, Roskovensky G, Emery K, Manno C, Valek K Cook C. Effect of Resistance Exercises on Function in Older Adults with Osteoporosis or Osteopenia: A Systematic Review. *Physiother Can*. 2012; 64 (4): 386-394. https://ovidsp.ovid.com/ovidweb.cgi?&T=JS&PAGE=reference&MODE=ovidclassic&CSC=y&NEWS=n&D=medall&SEARCH=23997394.ui. doi:10.3138/ptc.2011-31BH.
- Zhang S, Huang X, Zhao X, et al. Effect of exercise on bone mineral density among patients with osteoporosis and osteopenia: A systematic review and network meta-analysis. *J Clin Nurs*. 2022;31(15-16):2100-2111. doi:10.1111/jocn.16101

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REFERENCES

- Cosman, F et al. Clinician's Guide to Prevention and Treatment of Osteoporosis. 2018. Osteoporos Int 25, 2359–2381.
- Cummings SR et al. Goal-directed treatment for osteoporosis: a progress report from the ASBMR-NOF working group on goal-directed treatment for osteoporosis. J Bone Miner Res. 2017;32:3-10.
- Cummings SR et al. Vertebral fractures after discontinuation of denosumab: a post hoc analysis of the randomized placebo-controlled FREEDOM Trial and its extension. J Bone Miner Res. 2018;33:190-198.
- Eastell R et al. Pharmacological management of osteoporosis in postmenopausal women: an Endocrine Society clinical practice guideline. J Clin Endorcrinol Metab. 2019;104(5):1595-1622.
- Haas AV et al. Osteoanabolic agents for osteoporosis. J Endocr Soc. 2018;2(8):922-932.
- Lieder BZ et al. Optimizing sequential and combined anabolic and antiresorptive osteoporosis therapy. JBMR Plus. 2018;2(2):62-68.

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REFERENCES

- Lou S et al. Combination therapy of anabolic agents and bisphosphonates on bone mineral density in patients with osteoporosis: a meta analysis of randomized controlled trials. BMJ Open. 2018;8:c015187.
- Sang KG et al. Romosozumab or alendronate for fracture prevention in women with osteoporosis. N Engl J Med. 2017;377(15):1417-1427.
- Tsai JN et al. Combination denosumab and high dose teriparatide for postmenopausal osteoporosis (DATA-HD): a randomized, controlled phase 4 trial. Lancet Diabetes Endocrinol. 2019;7(10):767-775.
- VITAL research group et al. Vitamin D supplements and presentation of cancer and cardiovascular disease. N Engl J. 2019;380(I):33-34.
- Watts NB et al. Osteoporosis in men: An endocrine society clinical practice guidelines. J Clin Endocrinol Metab 2012:97:1802-1822.

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Balanced Wellbeing

Improving Residential Life & Facility Compliance

Psychiatric & Psychological Care

Effective Usage of Psychiatric Medicines in Nursing Facilities

Pari Deshmukh, MD
Medical Director, CEO Balanced Wellbeing LLC

1

Dr. Pari Deshmukh, "Dr. Desh"

- Case Western Reserve University graduate (Chief Resident)
- Triple Board-Certified Integrative Psychiatrist
- Psychotherapist
- Fellow of APA and ASAM
- Recipient of local and national awards and honors
- 10 years of daily post acute experience
- Leading the team of 70+ providers, 250+ employees
- Servicing 160+ SNF, 200+ALFs, 30+GH, 800+ patients/daily
- Designed the program

2

Disclosures

Paid Speaker of

- Acadia – Nuplazid (Pimavensarin)
- Avanir – Nuedexta (Dextromethorphan/Quinidine)
- Teva – Austedo (Deutetrabanazine)
- Neurorine – Ingrezaa (Valbenazine)
- Genesight pharmacogenomic (in the past)

3

Learning Objectives

- Discuss the details of commonly used psychiatric medications
- Describe the underutilized effective psychiatric medications
- Optimize the use of psychiatric medications patients are already on to avoid adding more medicine to lead to polypharmacy
- Identify effective combinations of psychiatric medicines to minimize polypharmacy
- Implement evidenced and experienced based psychiatric medicinal approaches in daily practice

Balanced Wellbeing

4

Common Psychiatric Conditions

A 76 yr. old female is having difficulty adjusting to being in a place away from her home. She is not eating and sleeping well. She has low energy and motivation. She has lost interest in pleasurable activities. She is moving slower than usual. What do you think she has?

A. Depression
B. Anxiety
C. Bipolar disorder
D. Schizophrenia

5

Common Psychiatric Conditions

84 yr. old female with recent diagnosis of UTI. Patient is confused, has altered sensorium. Her days and nights are mixed up. Patient hallucinates at times and feels like there are people coming to her room who do not exist. Patient is getting combative and agitated at random times. What is her likely condition?

A. Dementia
B. Delirium
C. Schizophrenia
D. Sundowning

6

Treatments

Depression
Antidepressants

Psychosis
Antipsychotics

Insomnia
Sedatives and Hypnotics

Mood Stabilization
Mood Stabilizers
(certain seizure meds)
Antipsychotics

Anxiety
Antianxiety
Mood Stabilizers,
Antipsychotics Sedatives
Hypnotics

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Antidepressant Medicines

SSRI
Prozac
Zoloft
Paxil
Celexa
Lexapro

SNRI
Cymbalta
Effexor
Fetzima

TCA
Amitriptyline
Nortriptyline
Doxepin

MAO-I
Phenelzine
Tranylcypromine
Selegiline

Other
Wellbutrin
Remeron
Buspar
Trintellix
Viibryd

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Antipsychotic Medications

Typical
- Haldol
- Perphenazine
- Thorazine
- Mellaril
- Stelazine
- Fluphenazine
- Chlorpromazine

Atypical
- Clozaril
- Zyprexa
- Risperdal
- Seroquel
- Abilify
- Geodon
- Saphris (Secuado)
- Latuda
- Vraylar
- Nuplazid

9

Other Medications

Mood Stabilizers	Benzodiazepines	Other	Hypnotics
• Depakote	• Ativan	Buspar	Ambien
• Tegretol	• Xanax	Nuedexta	Restoril
• Trileptal	• Klonopin	Stimulants	Lunesta
• Lamictal	• Valium		Belsomra
• Lithium	• Librium		Melatonin

10

A 63 yr. old male with history of taking Klonopin 1 mg tid routinely. Patient is a new admit to the facility from the hospital. Hospital did not give script for Klonopin. Why is it very important to restart Klonopin?

A. Anxiety will increase
B. Patient will go into withdrawal
C. Patient may have seizure
D. Patient may die
E. All of the above

11

Which of the following medicine does NOT need lab levels?

A. Depakote
B. Tegretol
C. Trileptal
D. Lithium
E. Dilantin

12

A 68 yr. old male with history of recent stroke. He is yelling, screaming, abrupt and uncontrollably crying, making repetitive sounds "help me..help me..help me". When we ask what help do you need, he says "nothing". What is the likely condition?

A. Stroke Related Behaviors
B. Parkinson Disease Psychosis
C. Pseudobulbar Affect
D. Dementia with Behaviors

13

Common Behaviors/Symptoms

Irritability	Agitation	Aggression	Combativeness
Low Motivation	Withdrawn	Insomnia	Restlessness

14

A 79 yr. old male with no active medical complications. Patient is hyper, agitated, getting restless, nervous, pacing, and is difficult to redirect. What is the first step to do?

A. Baker Act
B. Give Sedative
C. Stop Simultaneous Medicines
D. Consult Psychotherapy

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2 Types of Behavior

HYPERACTIVE

Depression
Irritability
Agitation

Anxiety
Impatience Restlessness
Pacing
Panic
Hypervigilant

Mania
Hyperverbal
High Energy
Less need of sleep

Psychosis
Internal stimulation, responding to stimuli

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2 Types of Behaviors

HYPOACTIVE

Depression
Low energy/interest
poor motivation
PMR

Delirium
Altered Sensorium

17

Common Forms of Treatments

Treat • Underlying medical condition	**Remove** • Contributing medicines	**Remove** • Triggers (sensory, pain, constipation, hunger, hydration)
Use • Distraction, redirection	**Use** • Psychotherapy	**Use** • Psychiatric medication

18

A 67 yr. old male, who is confused, agitated and combative. What is the next step?

A. Remove contributing medical (sensory, pain, constipation, hunger, hydration)
B. Use distraction, redirection
C. Use psychotherapy
D. Use psychiatric medication

19

An 87-year-old female, who thinks people are poisoning her, is refusing all medicines. As a result, patient is getting more agitated and restless. What can be done?

A. Give medicine in food
B. Give medicine in gel form
C. Give medicine in long-acting injection
D. All of the above

20

An 82-year-old female, who was exposed to antipsychotic medicine, now has movements. AIMS score is high. What to do?

A. Find out if patient has hyperkinetic or hypokinetic movement
B. Monitor
C. Start Cogentin
D. Start Austedo
E. Start Ingrezza

21

An 89-year-old female with history of dementia. Dementia is progressed. Patient is hardly able to do anything by herself except feeding and dressing self. What to do with dementia meds (Aricept and Namenda)?

A. Increase the dose
B. Decrease the dose
C. Stop medicines
D. Taper down medicines
E. Continue medicines

22

Psychotropic Meeting

Monthly Meetings with:

- Psychiatrist/PMHNP
- DON
- Unit Managers
- Social Services
- Pharmacist
- Administrator
- Medical Team Members

23

Question: Sexual Hyperactivity

A 62-year-old male, with history of depression. Patient is sexually inappropriate with staff. Makes sexual comments to CNAs and nurses, tries to touch them. What to do?

A. Monitor, no intervention needed
B. Behavioral Redirection
C. Start anti-impulsivity medicine
D. Start Estrogen
E. B, C and D

24

Question: Substance Abuse

A 66-year-old female, with history of alcoholism. Patient is craving for alcohol. Tries to go outside the facility to a nearby gas station to get alcohol. Couple of times, patient tried to drink hand sanitizer. Patient was educated multiple times but she does not listen. What to do?

A. No intervention needed as patient was adequately educated
B. Send patient to 12 step meeting
C. Give 30 days notice to patients as it is not safe to return drunk from outside
D. Start Naltrexone
E. Baker Act

25

Question: Psychotherapy

Psychotherapy can be ordered on Dementia patient …

A. True
B. False

26

Question: Telepsychiatry

A 57-year-old male, with history of suicide attempt and depression, is expressing wishes of ending life with a plan of using gun. Psych provider is not available to visit the facility. In this condition, it is allowed to Baker Act patient using a video call interview?

A. True
B. False

27

Telepsychiatry

- Emergency Assessment
- Add/Remove 1:1 sitter
- Medication Adjustments
- Virtual Presence
- COVID Lockdowns
- Smart Phone is good enough

28

Question: Baker Act

A 68-year-old female, with history of psychiatric hospitalization for depression. She has such a severe depression that she cannot do her ADLs. What to do?

A. Baker Act
B. No intervention needed
C. Initiate 1:1 sitter
D. Initiate treatment for depression and provide more assistance with ADLs
E. Start q30min checks

29

Question: Baker Act

A 68-year-old male, with extreme combativeness. Patient is not redirectable. No insight. You Baker Acted patient. Patient was calm in psychiatric triage. The rescinded the Baker Act and they are sending patient back without intervention. What to do?

A. Accept patient back and initiate the psychiatric treatment
B. Refuse to accept patient stating that patient is not safe to return to the facility
C. Accept patient but re-Baker Act the patient and send to another psych hospital
D. Find specialized psychiatric nursing home placement for the patient

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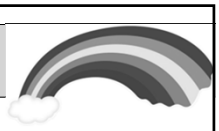
Layers of Service



Layer 1 – Psychiatric Screening (PDPM)
Leyer 2 – Psychiatric Medication Management (FQIP)
Layer 3 – Psychological Evaluation and Psychotherapy/Talk Therapy/Counseling
Layer 4 – Follow Ups, Psychometric Scales, Patient Education
Layer 5 – Continuity of Care at Home Program
Layer 6 – Telepsych Follow Up for Med Adjustments and Refills

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Research Studies

The summary of statistical significance is as follows:

Directly related to Psychiatric care	Statistical significance for Mean of Facility Adj %
	National Average
Physical restraints (L)	ns
Antipsychotic meds (s)	ns
Antipsychotic meds (L)	***↓
Antianxiety/hypnotic prev (L)	Ns
Antianxiety/hypnotic % (L)	*↓
Behavioural Sx affect others	***↓
Depress Sx (L)	***↓

ns: Non significant; SA: Vs Mean of State Avg %; NA: Vs Mean of National Avg %; *P<0.05; ***P<0.001.

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Implement Integrative Care

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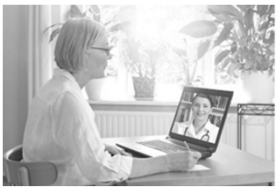
Continuity of Care at Home



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Excellent Psychiatry Care Means

Patients are happier

Families are happier

The Facility is happier

Insurance is happier

Everybody wins!

Balanced Wellbeing

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Balanced Wellbeing

Improving Residential Life & Facility Compliance

Psychiatric & Psychological Care

Thank you!

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