The Implementation of Registered Nurse Care Navigators in Post-Acute Care Health Centers to Reduce Hospital Readmission Rates

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Special Note: This is an abbreviated version of a Doctor of Nursing Practice 2018 Scholarly Project Completed for Loyola University N.O.

Background/Significance

Aging adults are at significant risk of hospital readmissions

- 20% of geriatric Medicare beneficiaries are readmitted to hospitals within 30 days of discharge
- Most readmissions occur within the first 72 hours
- The majority of Medicare dollars are spent for end-of-life care
- Many geriatric patients fail to execute advance directives or end-of-life care planning

Background/Significance

- Nurses are present at decisive moments in the care of aging adults
- Nurse navigation is common in acute care but foreign to SNFs
- Scarce research exists on the organization of nursing services and hospital readmission of aging adults

Background/Significance

RN care navigators in SNFs can play an important role in reducing unnecessary hospital readmissions by:

- Providing transition of care leadership and collaboration with internal and external team members
- Providing critical patient and family education
- Ensuring patient and family understanding of post-discharge instructions
- Ensuring compliance with follow-up appointments and medication regimes

Problem

- Aging adults are often at significant risk of physiological and psychosocial complications during the multiple transitions of care that may occur between acute and post-acute care environments
- In 2015, readmissions within 30 days of prior hospitalization resulted in over $41 billion in acute care expenditures
- Over 50% of costs were directly related to Medicare readmissions of aging adults

Problem

Premature and ill-planned hospital discharges often result in frequent and unnecessary readmissions:

- ***Critical*** importance of collaboration between all health care providers
- Development of systems and processes that facilitate safe transitions and effective continuity of care, including interoperability of E.H.R. systems
- Focus needed on medication management and drug reconciliation

Clinical Question

- Compared to traditional admission and discharge processes utilized in hospitals and SNFs across the United States, will focused interventions by RN care navigators reduce 30-day hospital readmission rates over a three-month period among geriatric patients admitted to long-term care?

Operational Definitions

Continuing Care Retirement Community (CCRC)

- Often referred to as a “life care” community
- A CCRC provides a continuum of care and services for aging adults over the age of 62
- Levels of care include independent and assisted living, memory care, skilled nursing and rehabilitation, and home health care

Operational Definitions

INTERACT II - Interventions to Reduce Acute Care Transfers

- Quality improvement tools and training resources
- Early recognition of changes in patient status
- Communication of patient information
- End-of-life care planning
- Now available as e-INTERACT on select post-acute care electronic health records

Review of Literature

- Enderlin (2013) discusses significant lapses in DC planning
- Evidence shows DC planning quality is associated with lower readmission rates (Henke et al., 2017)
- George & Shocksnider (2014) indicate that communication & collaboration between providers decreases readmissions
- Failure to address functional decline is a predictor of readmission (Falvey et al., 2016)
- RN care navigators can facilitate effective transitions through patient self-involvement in care (Kemp et al., 2017)

Project Long-Term Care (SNF) Settings

- Three Settings based in Florida
- Facility A: 54 beds
- Facility B: 100 beds
- Facility C: 90 beds
- Avg. Occupancy = 91%

Project Long-Term Care (SNF) Sample

- Medicare, Medicaid, managed care and private pay
- Sample limited to short-term Medicare Part A
- Convenience sample n = 165
- 65 to 95 years of age
- Mean Age = 89
- Two large primary referral hospitals near SNFs

Intervention

- 90-day period from September - December, 2017
- Dedicated and specialty trained RN care navigators
- Evidence-based INTERACT QI tools
- Baseline readmission rates
- Evidence-based interventions
- Analysis of post-intervention results

Measurement and Tools

- Data collection form & confidential coding system
- Calculation of all-cause 30-day readmission rates
- Functional Improvement Measure (FIM) scores
- Care Transition Measure (CTM-3) scores
- Record review for presence of advance directives on admission and discharge

Methods and Procedures

- Selection and training of RN care navigators
- Training of interdisciplinary team in each health center
- Implementation of RN care navigators in health centers
- Completion of RN care navigation checklist and data collection sheets for each patient in the sample
- Notification of attending physicians at admission and discharge
- Communication with hospital discharge planners prior to discharge

Methods and Procedures

- Therapy team collection of Functional Improvement Measures
- Social service department discussion with patient/family about importance of end-of-life care planning and advance directives
- Completion of discharge CTM-3 scores (Care Transition Measure scores: Dr. Eric Coleman)
- Completion of post-discharge follow-up call at 48 hours, seven days, and 30 days
- Review and analysis of data

Analysis and Results: Descriptive Statistics

Descriptive Statistics				
	Minimum	Maximum	Mean	Standard Deviation
Age	65	95	83.79	7.825
Length of Stay	2	71	22.38	13.865

Analysis and Results

Sample size: n = 165

Short-term stay Medicare Part A patients

Top admission diagnoses included:

- Cardiac (n=32)
- Pulmonary (n=19)
- Orthopedic aftercare(n=73)

Analysis and Results

Average age of participants was 83.8 years

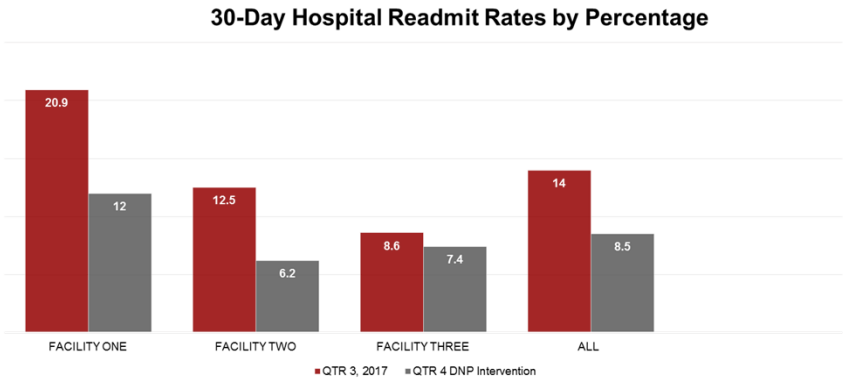
93% (13/14) readmits were over 80 years old

Mean length of stay in SNF was 22.4 days

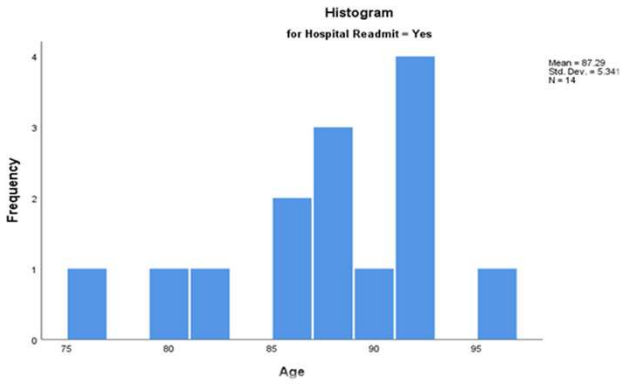
Analysis and Results

- Hospital readmissions decreased from 14.1% to 8.5% following intervention
- Average score on CTM-3 was 3.8 out of 4
- Completion of Advance Directives increased from 52% on admit to 72% at discharge
- 66.75% Increase in Functional Improvement Measures

Reduction in 30-Day Readmissions Post-Intervention



Correlation of Age and Probability of Readmission



Presence of Advance Directives

Crosstabulation Table Advanced Directive on Admission by Advanced Directive on Discharge					
			Advanced Directive on Discharge		Total
			No	Yes	
Advanced Directive on Admission	Yes	Count	0	86	86
		% of Total	0.0%	53.8%	53.8%
	No	Count	41	33	74
		% of Total	25.6%	20.6%	46.3%
Total		Count	41	119	160
		% of Total	5.6%	4.4%	100.0%

Discussion

- Continued study is warranted to develop collaborative strategies and interventions that positively impact transitions of care among geriatric patients
- Literature: Given the number of aging adults without CPR status and advance directives, end of life care planning discussions must be included in the care of geriatric patients in acute and post-acute care settings
- Anecdotal customer service trends emerged – call light response time is ***critical*** to aging adults

Discussion

- The value of evidence-based INTERACT tools in early identification of changes of condition warrants their wide-spread use in post-acute care health centers
- Results are consistent with current literature emphasizing the importance of discharge planning and collaboration between the hospital and health center

Potential Implications

- Improved communication and coordination of care are essential to safe and effective transitions of care
- Critical role of care navigation in CCRCs
- Clinical complexity continues to increase in SNFs
- The multiple disease comorbidities/acuity of the geriatric sample population are typical of post-acute care health centers

Limitations

- Limited sample size of 165 geriatric patients: z-scores were directional but not significant
- Setting was limited to three health centers in one city
- All SNFs were owned by one company
- 90 Day limited intervention period

Limitations

- The advanced age, clinical complexity and multiple disease comorbidities of the geriatric sample population was positively correlated with the probability of hospital readmission
- Disparate implementation of the INTERACT tools in the three health centers

Sustaining Results

- Expanded use of RN care navigators in post-acute care
- Monthly tracking and trending of readmission rates and interdisciplinary team discussion/root cause analysis in community QAPI meetings
- Compare health center readmission outcomes against national and organizational benchmarks
- Involvement of medical directors and attending physicians/specialists/APRNs

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