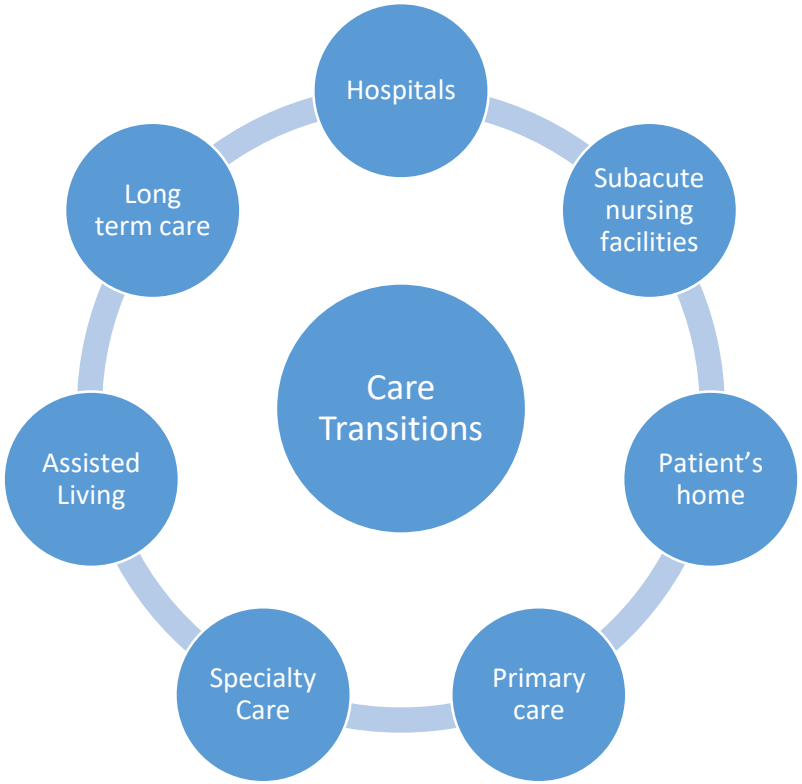
Care Transitions for Older Adults: An Update

Caitlin Jones, MD

Define Transitional Care

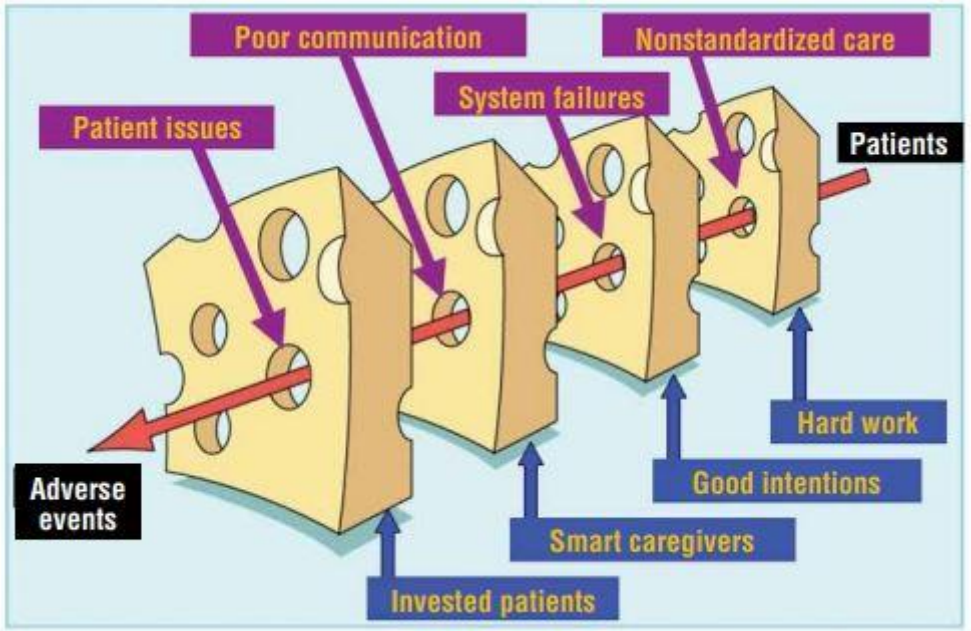
- “A set of actions designed to ensure the coordination and continuity of healthcare as patients transfer between different locations or different levels of care within the same locations.”



Coleman, *JAGS* (2003)

Adverse Events in Transitions of Care

- 1 in 5 patients had adverse events after discharge
- 62% could have been either prevented or ameliorated
- Most common adverse event= adverse drug events
- Rehospitalization Rates
  - Almost 1 in 5 patients were rehospitalized within 30 days
  - 1 in 3 patients were rehospitalized within 90 days



Foster et al, *Ann Intern Med* (2003)
Jencks et al, *N Engl J Med* (2009)
Coffey at al, *SHM* (2013)

Objectives

1. Define characteristics of successful care transition programs
2. Describe how to improve the coordination of care during care transitions in the context of value-based payment systems.
3. Describe care transition strategies to help those who are at highest risk for repeated hospitalization.

Case

- Mr. Smith is an 82 year old man who lives alone and is independent in ADLs and IADLS. He has a past medical history significant for CAD with HFrEF, atrial fibrillation, HTN, DM2, and CKD-3.
- He has been hospitalized four times in the past six months for acute exacerbations of his chronic medical conditions.
- You are preparing his discharge after hospitalization for CHF exacerbation.

Characteristics of Successful Care Transition Programs

Primary Models of Care Transitions (from hospital to non-nursing home setting)

- Transitional Care Model (TCM)
- Care Transition Intervention (CTI)
- Re-Engineered Discharge Project (Project RED)
- Bridging the Discharge Gap Effectively (BRIDGE)
- Coordinated Transitional Care (C-TraC)
- Care Transition Innovation (C-Train)

Transitional Care Model

- Standardized comprehensive, evidence based transitional care coordination for chronically ill, high risk older adults
- **Transitional care nurse (TCN)**- Advanced practice nurse.
  - Conducts initial hospital visit and assessment
  - Two home visits (at least)
  - Telephone availability 7 days per week
  - Weekly TCN initiated telephone contact with patient and caregivers
  - At completion, written discharge summary to patients, caregivers, physicians and other providers
- Interventions focused on medication, symptom management, diet, activity, sleep, medical follow-up, emotional status of patients and caregivers.
- Successes: Intervention reduced readmissions, lengthened the time between discharge and readmission, and decreased costs of providing healthcare

Naylor et al, JAMA (1999)

Care Transition Intervention

- 4-week program taught by nurse Care Transitions Coach addressing four primary pillars:
  1. Improved communication via portal record of essential health information patient carries across care settings.
  2. Medication reconciliation and self-management training
  3. Patient-scheduled follow-up appointments
  4. Improved patient knowledge regarding “red flags” and how to respond
- Successes: Lower re-hospitalization rates at 30 and 90 days in intervention groups, as well as reduced mean hospital costs ($2058)

Coleman et al, *JAGS* (2004)
Coleman et al, *Arch Intern Med* (2006)

Re-Engineered Discharge Project (Project RED)

- A nurse discharge advocate works with patients during their hospital stay to arrange follow-up appointments, confirm medication reconciliation, and conduct patient education.
- Clinical pharmacist calls patients 2-4 days after discharge to reinforce discharge plan and review medications

- Successes: Intervention group had lower rate of hospital utilization than those receiving usual care

Jack et al, *Ann Intern Med* (2009)

What do the Systematic Reviews and Meta-analysis show?

- 42 trials extending from 1990-4/2013

Intervention Characteristics			
	Readmission, Relative Risk (95% CI)		P value for interaction
	Subgroup	Comparison Group	
Rated to increase patient capacity (16)	**0.68 (0.53-0.86)**	**0.88 (0.80-0.97)**	**.04**
Rated to increase patient workload (5)	0.77 (0.57-1.03)	0.82 (0.71-0.96)	.68
Rated to decrease patient workload (19)	0.81 (0.67-0.98)	0.82 (0.71-0.96)	.90
Delivered by 2 or more individuals	**0.69 (0.57-0.84)**	**0.87 (0.77-0.98)**	**.05**
Involved ≥ 5 meaningful patient interactions (13)	0.77 (0.64-0.92)	0.84 (0.73-0.96)	.43
Comprised ≥ 5 unique activities (16)	**0.63 (0.53-0.76)**	**0.91 (0.81-1.01)**	**.001**
Had both an inpatient and outpatient component (22)	0.78 (0.65-0.92)	0.84 (0.74-0.97)	.46

Leppin et al., *JAMA Intern Med* (2014)

Seven Underlying Mechanisms of Successful CTI

Mechanism	Guiding Principle	Definition
Simplifying	*Managing Errors*	Reducing the complexity of care transition in order to prevent error and to expedite essential process steps
Verifying		Proactively confirming the essential steps in the care transition process or searching for potential errors
Connecting		Links stakeholders (patients/caregiver and health care providers) to ensure situational awareness and continuity of care
Translating	*Patient Empowerment*	Making sure provider's goals are translated into patient's goals; translating medical jargon into understandable terms + translating care provided in to hospital to activities to be completed at home
Coaching		Transferring sustainable knowledge and skills to patients that help them to navigate the healthcare system
Monitoring	*Managing Future health events*	Measures taken to ensure that changes in the patient's clinical status will be noted in a timely manner
Anticipating		Creating contingency plans

Zwart et al, *Medical Care* (2021)

Transition to Skilled Nursing Facility (SNF)

- Medically complex patients discharged from hospitals to SNF are at high risk for unintentional errors, rehospitalizations, and mortality
- 24% of SNF Medicare patients were rehospitalized within 30 days of discharge (2006)→ 19% by 2015
- 31-67% of 30-day readmissions remain preventable

- Poor SNF patient outcomes within 90 days of transition from SNF to home
  - 20% visit ED without hospitalization
  - 30% rehospitalized
  - 8% die

Burke et al, *J Am Med Dir Assoc* (2016)
Toles et al, *J Am Geriatr Soc* (2014)

Systematic Review on Transitional Care in SNF

- Identified six programs that met criteria for inclusion
- Combination pre-discharge, post-discharge, and bridging transitional care program interventions completed by interdisciplinary team members
- Findings suggest that there is *promising but limited evidence* that transitional care improves clinical outcomes for SNF patients.

Toles et al, *Geriatric Nursing* (2016)

Information Sharing Practices between US Hospitals and SNFs to Support Care Transitions

- 471 hospital-SNF pairs
- Objective: To measure the completeness, timeliness, and usability of information shared by hospitals when discharging patients to SNFs, and to identify relational and structural characteristics associated with better hospital-SNF information sharing

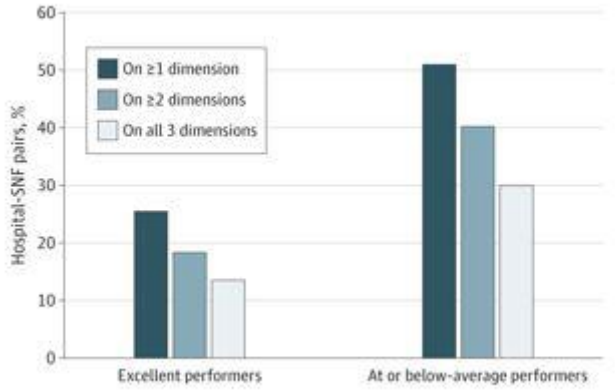
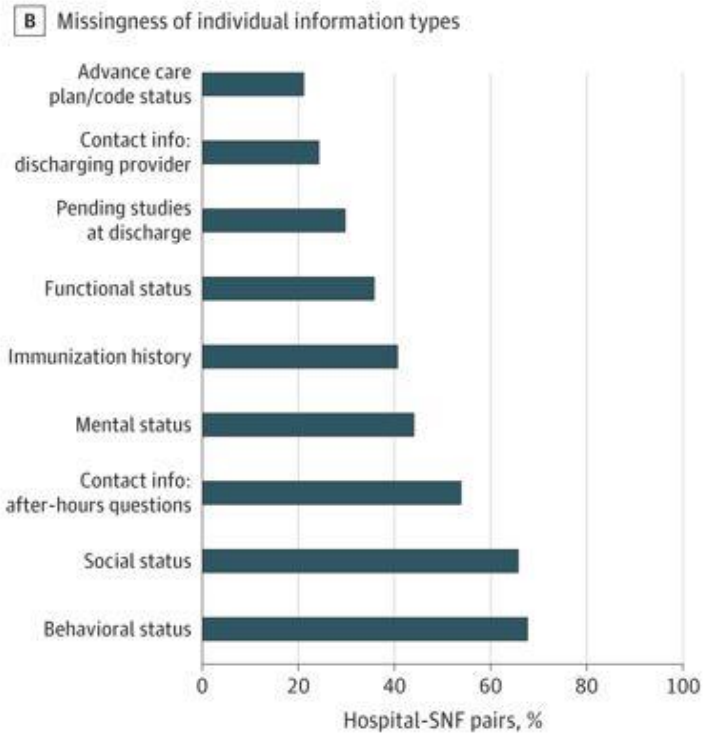


Figure 1: SNF Ratings- Completeness, Timeliness, and Usability of Information to Support Care Transitions



Alder-Milstein, *JAMA Netw Open* (2021)

Transitional Care Nurse Practitioner-Led Intervention

- Based on Naylor's Transitional Care Model
- NP visit within 72 hours of SNF discharge with visit focus on medication reconciliation, physical exam, review of follow-up, communication to primary care provider after visit, disease self-management education, referral t community resources, assessment of environment, confirmation of home heath services, and receipt of durable medical equipment. This study also focused on social determinants of health, cognitive impairment, and support system
- Successes: Reduced hospital readmission

Rose et al, *Geriatric Nursing* (2021)

Connect-Home

- Targets seriously ill SNF patients discharged to home and their caregivers
- Two step intervention:
  1. SNF staff create an individualized Transition Plan of Care to manage patient's illness at home
  2. Connect-Home Activation RN visits the patient's home to implement the written Transition Plan of Care

Toles, *Trials* (2021)

Extension for Community Health Outcomes-Care Transitions (ECHO-CT)

- Connects receiving multidisciplinary skilled nursing facility teams with multidisciplinary team at discharging hospital.
- Within one week of discharge, hospital providers discuss each patient's transitional and medical issues with providers at SNF using videoconferencing technology
- Pilot Successes: reduced patient hospital readmission and SNF length of stay

PSNet (2021)

Duke Health Optimization Program for Elders (HOPE)

- Barrier: Physicians providing care in SNFs were not associated with discharging hospital health care system; real-time communication between hospital and SNF physicians was not occurring.
- Intervention: Nurse practitioner led multidisciplinary team who identified geriatric syndromes, set patient/caregiver expectations, assess rehab potential, clarify goals of care, and communicate information directly to SNF providers. One time inpatient consultation and post-discharge follow-up within 72 hours.
- Successes: Lower 30-day readmission rates

Krol et al*, J Nurs Care Qua*l (2019)

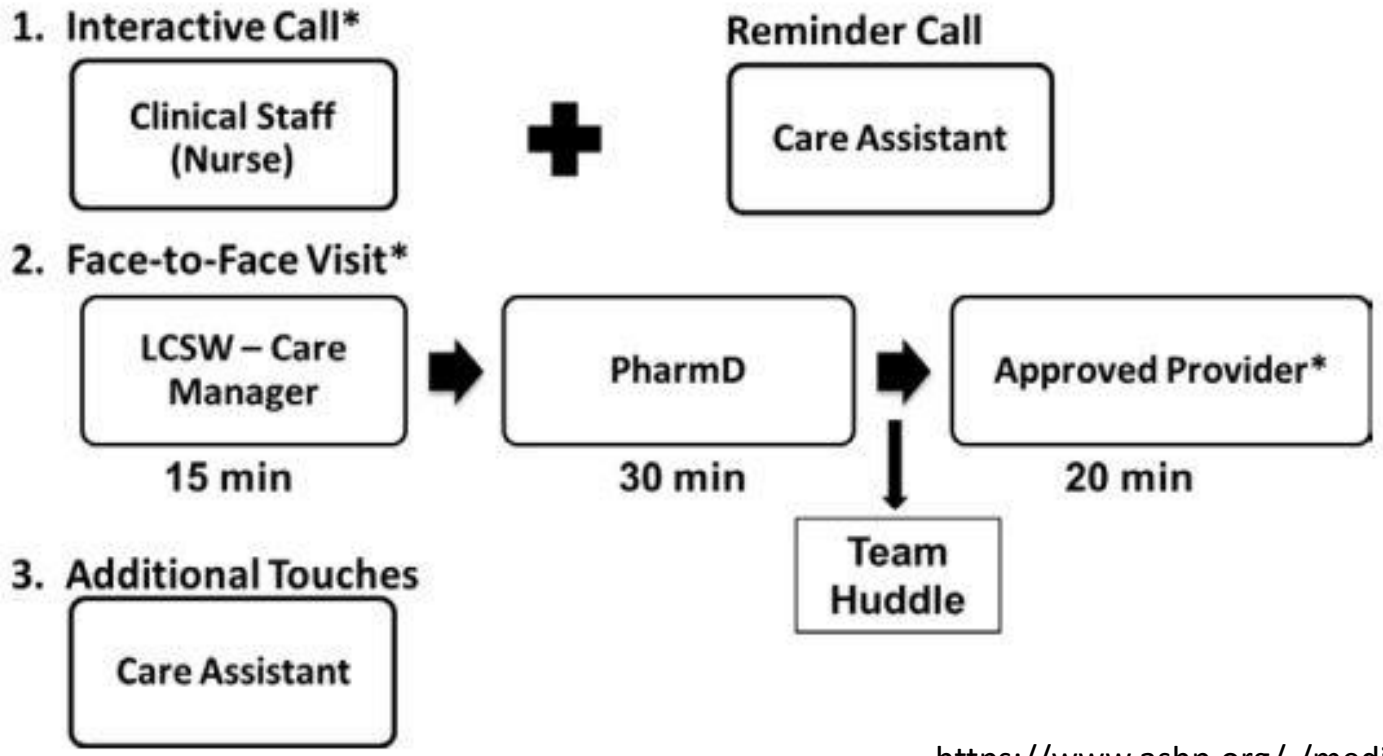
Value-Based Care Opportunities

Transitional Care Management (TCM) Codes

- CPT Codes 99495 and 99496
- Report physician or non-physician provider care management services for patient following a discharge from a hospital, SNF or CMHC stay, outpatient observation, or partial hospitalization
- Non-face-to-face and Face-to-Face requirements
- 30 day monitoring period. MUST have interactive communication with patient or caregiver within 2 business days of discharge

Transitional Care Management (TCM) Codes

- Opportunities for Telehealth and Interdisciplinary Care



https://www.ashp.org/-/media/assets/pharmacy-practice/resource-centers/ambulatory-care/transitional-care-management-codes.pdf

Callback Program & ED Revisit Rates

- Automated telephone call 2 days after ED discharge at single academically affiliated county ED.
- Participants allocated in non-random fashion to two groups- call vs no-call. All patients received telephone questionnaire at 14 days to assess secondary outcome measures.
- 8110 patient encounters enrolled
  - 2958 (36.5%) received automated call 2-days after discharge
  - 5152 (63.5%) no call 2 days after ED discharge
  - Mean age = 40.5

Fruhan & Bills, *JAMA Network OPEN* (2022)

Callback Program & ED Revisit Rates– Results

- Rate of ED return within 7 days of initial index visit ($p<0.001$)
  - 7.6% (224/2958) of those with two-day call
  - 10.3% (533/5152) of those without two-day call
- Secondary outcomes (not statistically significant)
  - Follow-up with health care clinician
  - Understand their health issues
  - Received discharge medications
- Interesting note
  - Those with 2-day phone call, 43.3% requested telephone call by clinician and interventions were undertaken in 51.3% (115/224) calls.

Fruhan & Bills, *JAMA Network OPEN* (2022)

Geriatric Emergency Departments

- Setting: 2 hospitals with GEDI WISE Programs (Mount Siani Medical Center and Northwestern Memorial Hospital) 1/2013-8/2018
- Intervention: consultation with transitional care nurse or social worker trained for GEDI WISE Program at first ED visit. (Comparison group- never seen by TCN or SW during study period).
- Primary Outcomes: Prorated total Medicare payer expenditures per beneficiary over 30 and 60 days after index ED visit encounter.

Medicare Savings Per Beneficiary		
	MSMC	NMH
30-day after index ED Visit	$2436	$2905
60-day after index ED Visit	$1200	$3202

Hwang et al. *JAMA Network Open* (2021)

Strategies for Highest Risk

Bridging the Discharge Gap Effectively (BRIDGE) Program

- Nurse practitioner led transition care cardiology visit (acute coronary syndrome, congestive heart failure, atrial fibrillation, and others)
- Patients seen within 14 days of discharge
  - Assessment of clinical status
  - Evidence-based education on cardiovascular disease and lifestyle modifications
  - Medication adjustments
  - Appropriate referrals
- Successes: Participation was associated with reduced risk of hospital readmission and composite endpoint (readmission + ED visit + mortality)
  - Patients with few comorbidities experience a larger benefit that patients with more substantial comorbidity burden

Garfein et al, *The American Journal of Medicine* (2021)

Coordinated Transitional Care (C-TraC) Program

- Combines VA telemedicine principles with protocols adapted from Coleman's Four Pillars of transitional care
- Developed specifically for people who may have difficulty participating in pre-discharge education (such as older adults with dementia) and designed for use in the VA System with a wide geographic dispersion

- Successes: 1/3 fewer 30-day rehospitalizations

Kind et al, *Fed Pract* (2014)

The Care Transitions Innovation (C-Train)

- Designed for socioeconomically disadvantaged adults (uninsured or public insurance)
- Intervention:
  1. Transitional nurse coaching and education (with home visits for highest risk patients)
  2. Pharmacy care, including 30 days of medications after discharge for those without prescription drug coverage
  3. Post-hospital primary care linkages
  4. Systems integration and continuous quality improvement

Englander et al, *Journal of General Internal Medicine* (2014)

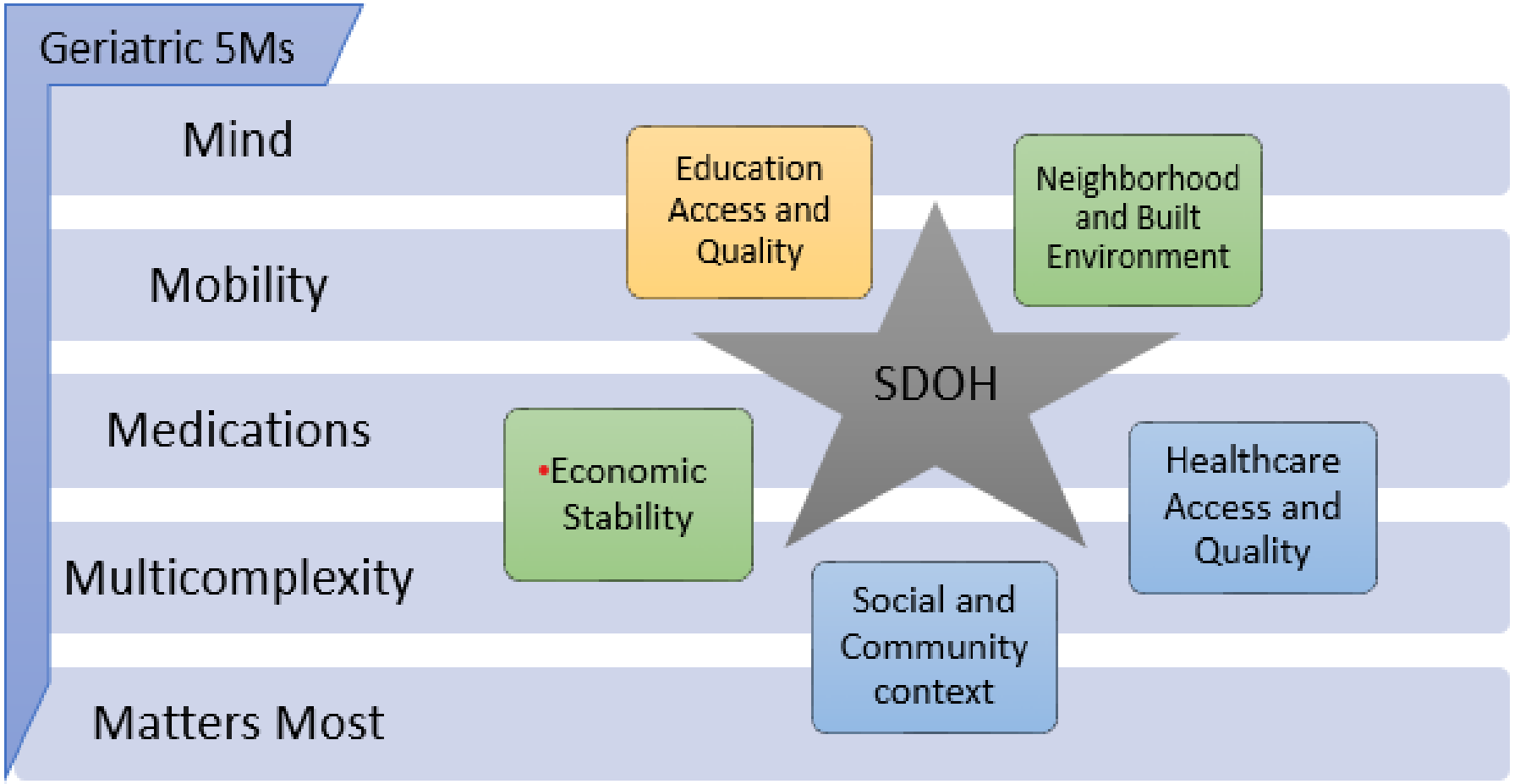


Figure Courtesy of Dr. Jantira Thomas

Unplanned hospital readmissions in high-risk older adults

- Randomized controlled trial of 222 participants in two hospitals in Australia (inclusion criteria- 65 or older with at least one risk factor for readmission)
- Purpose: Evaluate comparative effectiveness of transitional care interventions on unplanned hospital readmissions within 28 days, 12 weeks, and 24 weeks following hospital discharge.
- Four Groups:
  - Standard care
  - Exercise program only
  - Nurse Home visit and Telephone follow-up (N-HaT)
  - Exercise program and Nurse home visit and Telephone follow-up (ExN-Hat)

Finlayson et al. *BMC Health Services Research* (2018)

Unplanned hospital readmissions in high-risk older adults– Results

- ExN-Hat Group: 3.6 times less likely to have unplanned readmission (HR 0.28, 95% CI 0.09-0.87, p=0.029)
- N-HaT Group 2.6 times less likely to have unplanned readmission at 28 days (HR 0.38, 95% CI 0.13-1.07, p=0.067)
- Findings persisted at 12 weeks; no significant differences between groups at 24 weeks.

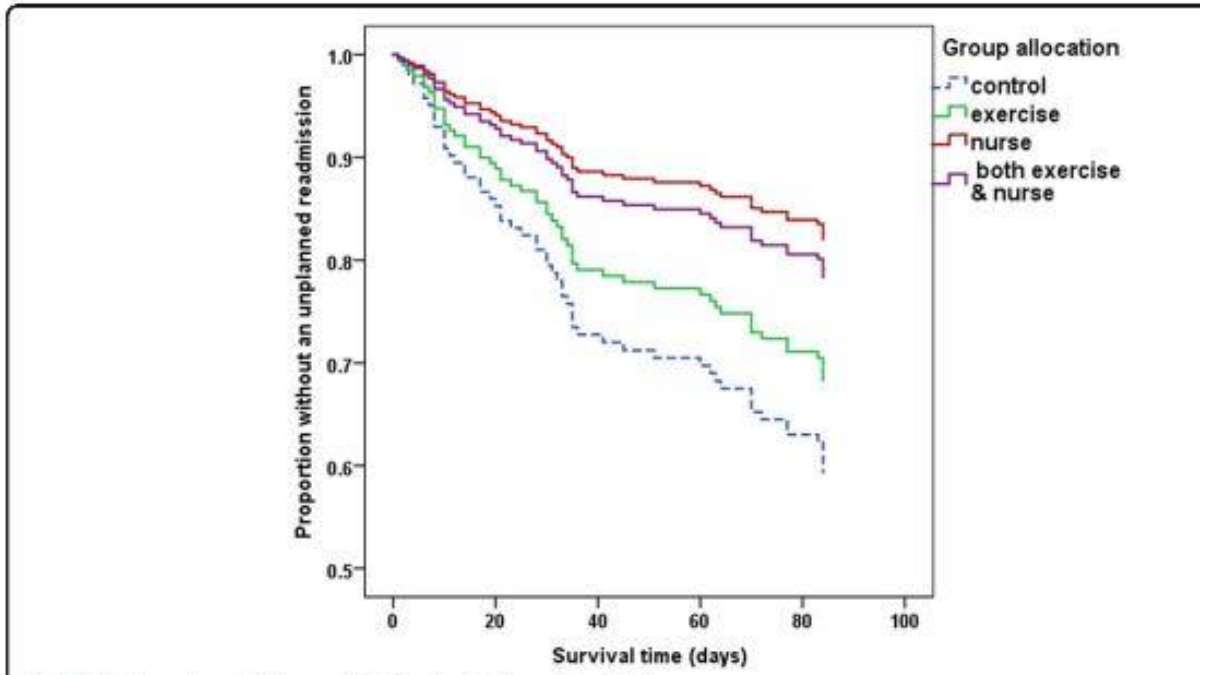


Fig. 2 Unplanned readmissions within 84 days, Adjusted Survival Lines

Finlayson et al. *BMC Health Services Research* (2018)

Discharge Summary Checklist

Data Elements
Presenting problem that precipitated hospitalization
Key findings and test results
Final Primary and Secondary Diagnoses
Brief Hospital Course
Condition at discharge, including functional status and cognitive status*
Discharge destination
Discharge medications - Written schedule - Purpose and cautions for each* - Comparison with pre-admission medications
Follow-up appointments
All pending labs or tests
Recommendations of sub-specialty consultants
Documentation of patient education and understanding
Any anticipated problems and suggested interventions (with 24/7 callback number)
Identify referring and receiving providers
Resuscitation status/pertinent end of life issues*

Halasyamani et al, *Journal of Hospital Medicine* (2006)

Project Better Outcomes by Optimizing Safe Transitions (BOOST)

- The 8 P Screening Tool: Identifying your Patient's Risk for Adverse Events after Discharge

Problems with Medications	Polypharmacy and high risk medications
Psychological	Depression screen positive or hx of depression
Principal Diagnosis	Cancer, stroke, DM, COPD, heart failure
Physical Limitations	Deconditioning, frailty, malnutrition, etc
Poor health literacy	Inability to do Teach Back
Patient support	Social isolation, absence of support to assist with care
Prior hospitalization	Non-elective; in last 6 months
Palliative Care	Surprise Question

https://www.hospitalmedicine.org/globalassets/clinical-topics/clinical-pdf/8ps_riskassess-1.pdf

National Transitions of Care Coalition (NTOCC) Care Transition Bundle

1. Medications Management Services & Coordination
2. Transition Planning
3. Patient and Identified Family Caregiver Engagement & Education
4. Information Transfer
5. Follow-up Care
6. Healthcare Provider Engagement & Shared Accountability Across the Health Continuum
7. Physical Health, Mental Health, Social Determinants of Health Triune

NTOCC (2022)

Return to Case

- Mr. Smith is an 82 year old man who lives alone and is independent in ADLs and IADLS. He has a past medical history significant for CAD with HFrEF, atrial fibrillation, HTN, DM2, and CKD-3.
- He has been hospitalized four times in the past six months for acute exacerbations of his chronic medical conditions.
- You are preparing his discharge after hospitalization for CHF exacerbation.

- How do we apply the tools and programs that we discussed to optimize his care transition?

Mr. Smith- Optimizing Transition to Home

project BOOST
Better Outcomes for Older adults through Safe Transitions

Patient PASS: A Transition Record
Patient Preparation to Address Situations (after discharge) Successfully

I was in the hospital because _____

If I have the following problems ...	I should ...	Important contact information:
1. _____	1. _____	1. My primary doctor:
2. _____	2. _____	(___) _____
3. _____	3. _____	2. My hospital doctor:
4. _____	4. _____	(___) _____
5. _____	5. _____	3. My visiting nurse:
		(___) _____
		4. My pharmacy: _____
		(___) _____
		5. Other: _____

My appointments:	Tests and issues I need to talk with my doctor(s) about at my clinic visit:	
1. _____	1. _____	I understand my treatment plan. I feel able and willing to participate actively in my care:
On: __/__/___ at __:__ am/pm	2. _____	
For: _____	3. _____	_____
2. _____	4. _____	Patient/Caregiver Signature
On: __/__/___ at __:__ am/pm For: _____	5. _____	_____
3. _____		Provider Signature
On: __/__/___ at __:__ am/pm		____/____/_____
For: _____		Date
4. _____		
On: __/__/___ at __:__ am/pm		
For: _____		

Other instructions: 1. _____
2. _____
3. _____

Conclusions

1. Define characteristics of successful care transition programs
2. Describe how to improve the coordination of care during care transitions in the context of value-based payment systems.
3. Describe care transition strategies to help those who are at highest risk for repeated hospitalization.

Thank you

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