



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

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Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Disclosures

- Dr. Ouslander is a full-time employee of Florida Atlantic University (FAU) and has received support through FAU for research on INTERACT from the National Institutes of Health, the Centers for Medicare & Medicaid Services, The Commonwealth Fund, the Retirement Research Foundation, PointClickCare, Medline Industries, and Think Research.
- Dr. Ouslander serves as a paid advisor to Pathway Health, Think Research, and Curavi.
- Dr. Ouslander and his wife may receive royalties from FAU and Pathway Health for training on and licensing of the INTERACT program.
- Work on funded INTERACT projects is subject to the terms of Conflict of Interest Management plans developed and approved by the FAU Financial Conflict of Interest Committee.



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Learning Objectives

1. Identify common causes of unnecessary hospitalizations in the geriatric population.
2. Describe strategies that can help reduce these unnecessary hospitalizations.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Why Does This Matter?

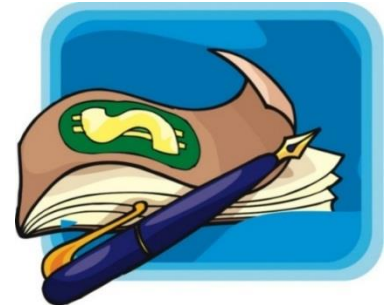
- Hospitalizations and ED visits are common and often result in complications in older patients
- Some are avoidable or preventable
- Care can be improved, resulting in fewer complications and reduced cost
- Cost savings to Medicare can be shared with providers to further improve care
- Financial and regulatory incentives are changing



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Changes in Medicare Payment Policies are Incentivizing Fewer Hospitalizations

- CMS is shifting Medicare beneficiaries from the “fee-for-service” system to “value-based” payment models, such as:
 - Value-Based Purchasing
 - Financial penalties for hospital readmissions
 - Medicare Managed Care
 - Bundling of payments for episodes of care
 - Accountable Care Organizations
 - Others



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Why Does This Matter?



- At the beauty salon

Hospitalization

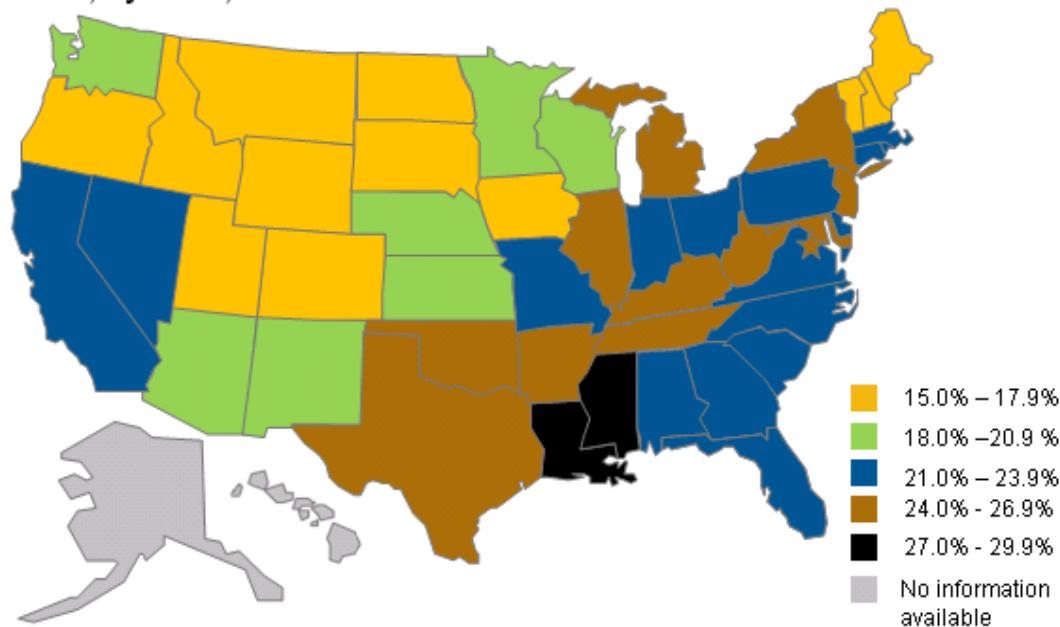


- At risk for complications
 - Delirium
 - Polypharmacy
 - Falls
 - Incontinence and catheter use
 - Hospital acquired infections
 - Immobility, de-conditioning, pressure ulcers

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

**Close to 1 in 5 patients admitted to a SNF are
re-admitted to the hospital within 30 days**

Figure 3: Frequency of Rehospitalization of Short-Stay Nursing Home Residents, by State, 2006



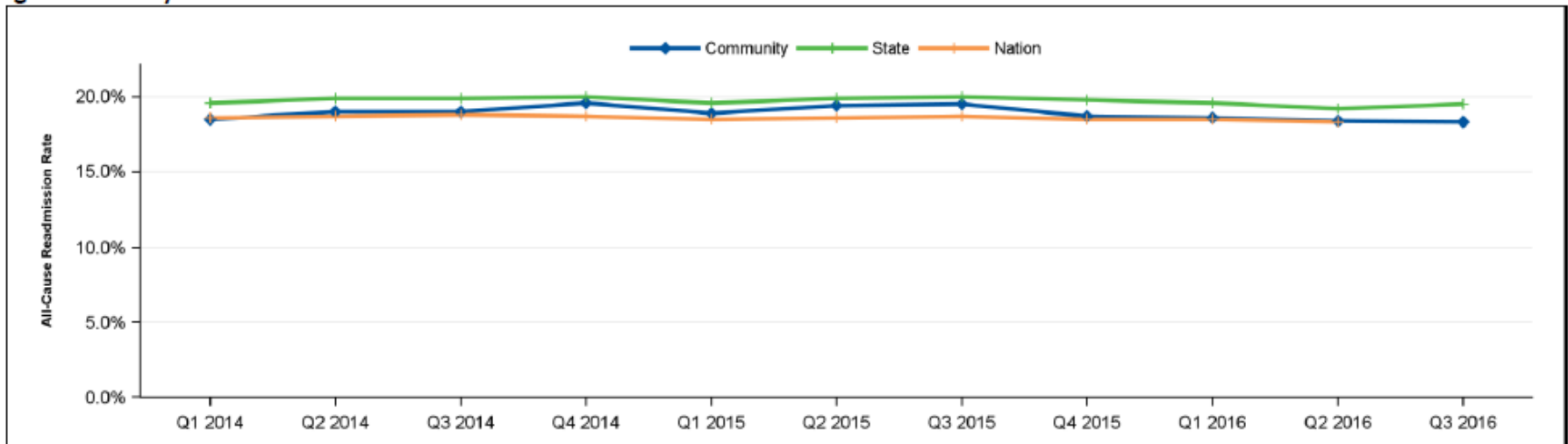
Source: Vincent Mor, et al. (2010) Medicare SNF Rehospitalizations: Implications for Medicare Payment Reform. Health Affairs.

Mor et al. Health Affairs 29: 57-64, 2010

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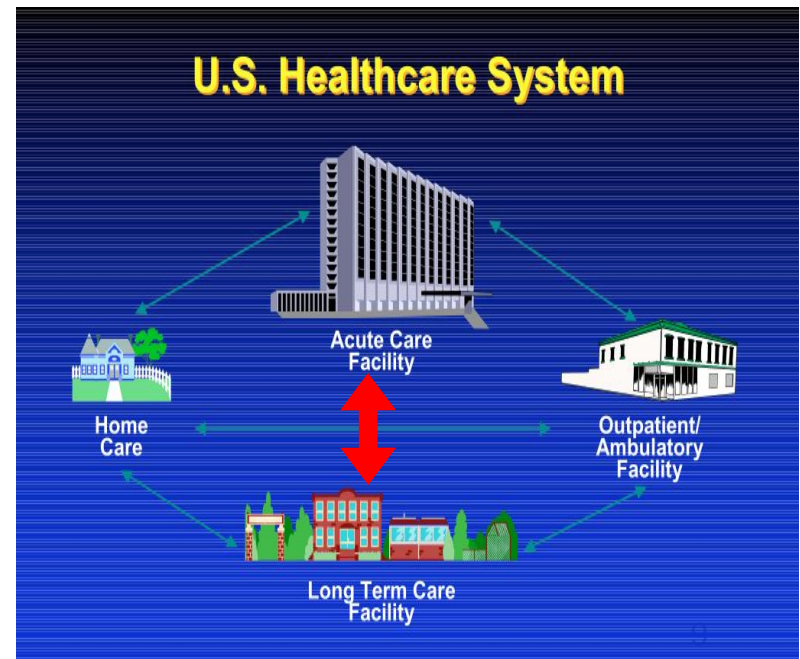
Figure 2: 30-Day All-Cause Readmission Rates¹⁰



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Some Hospitalizations of Older Patients are Potentially Avoidable

- Several studies suggest that a substantial percent of hospital transfers, admissions, and readmissions are unnecessary and can be prevented



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

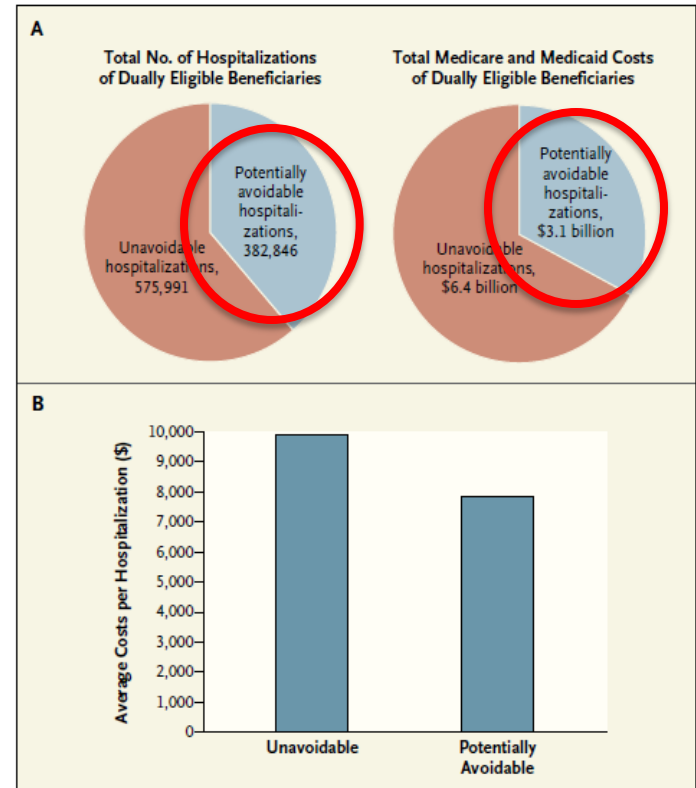


The NEW ENGLAND JOURNAL of MEDICINE

Perspective
SEPTEMBER 29, 2011

Reducing Unnecessary Hospitalizations of Nursing Home Residents

Joseph G. Ouslander, M.D., and Robert A. Berenson, M.D.

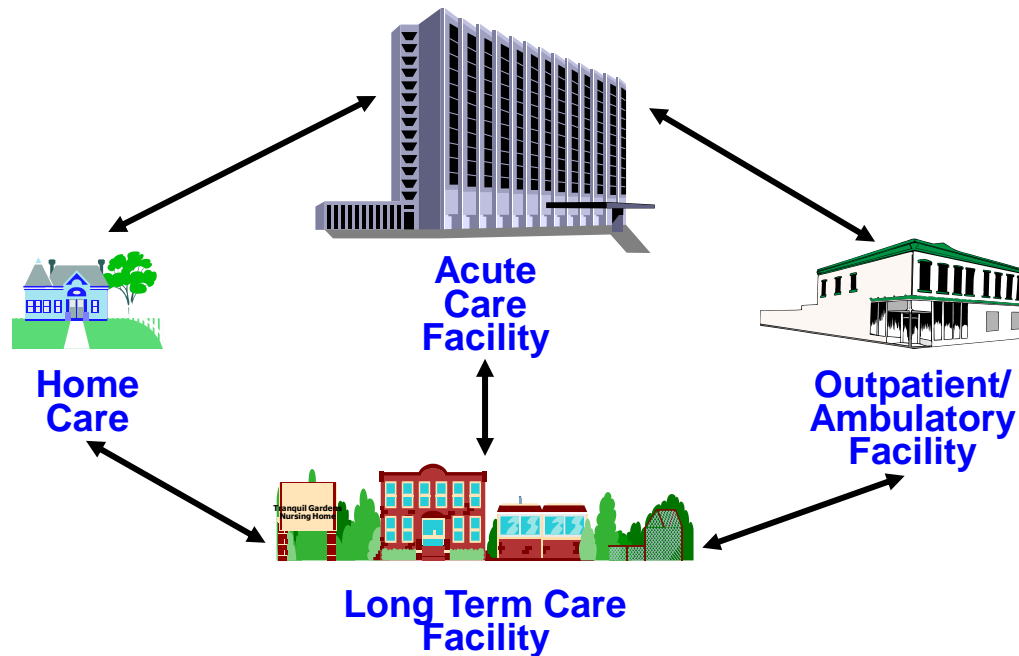


Unavoidable and Potentially Avoidable Hospitalizations of Nursing Home Residents Eligible for Both Medicare and Medicaid, 2005.

Data are based on all hospitalizations of 1,571,920 dually eligible Medicare and Medicaid beneficiaries in the year 2005. Of the total hospitalizations included, 72% were from nursing homes, accounting for 85% of the total costs of avoidable hospitalizations. Data are from the Centers for Medicare and Medicaid Services.

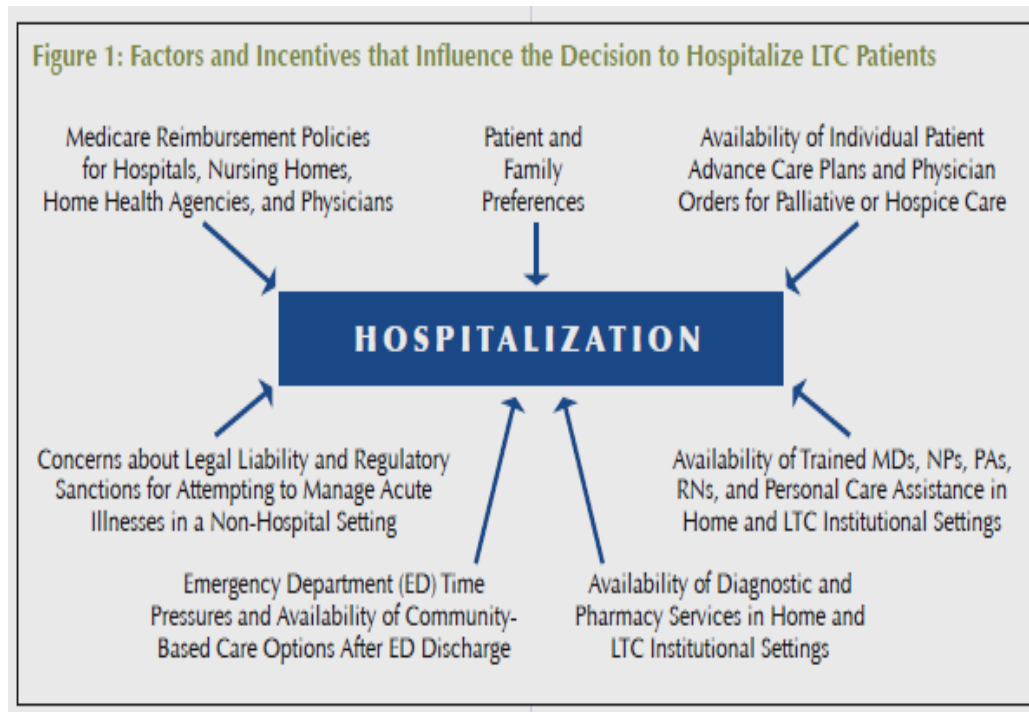
Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Poor Transitions Between Care Settings Cause Many Errors
and Patient Safety Problems, Including Adverse Events,
Returns to the ED and Readmissions



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The Causes of Potentially Avoidable Hospitalizations are Multifactorial

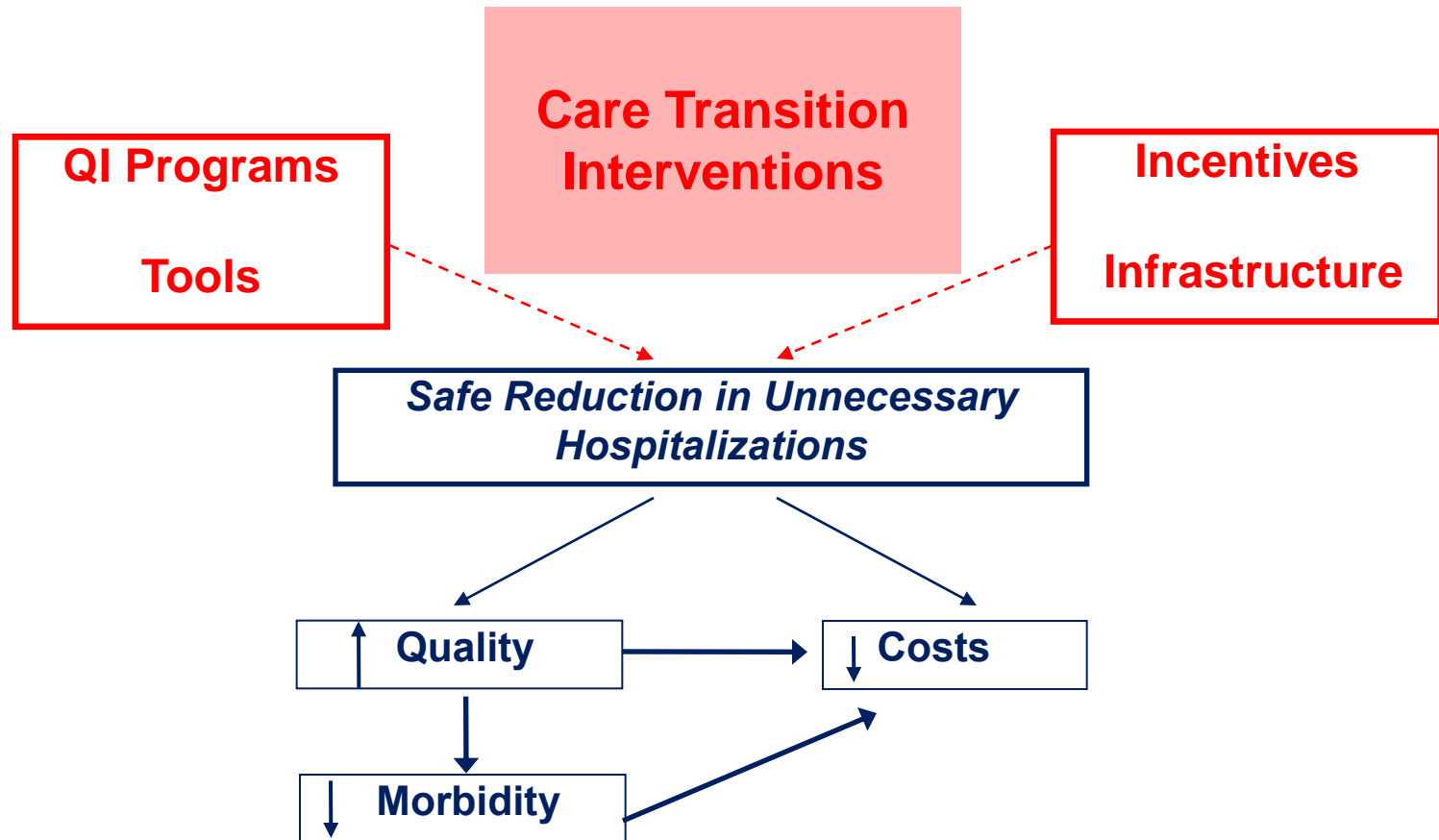


Geriatrics and the Triple Aim: Defining Preventable Hospitalizations in the Long-Term Care Population

Joseph G. Ouslander, MD, and Katie Maslow, MSW†*

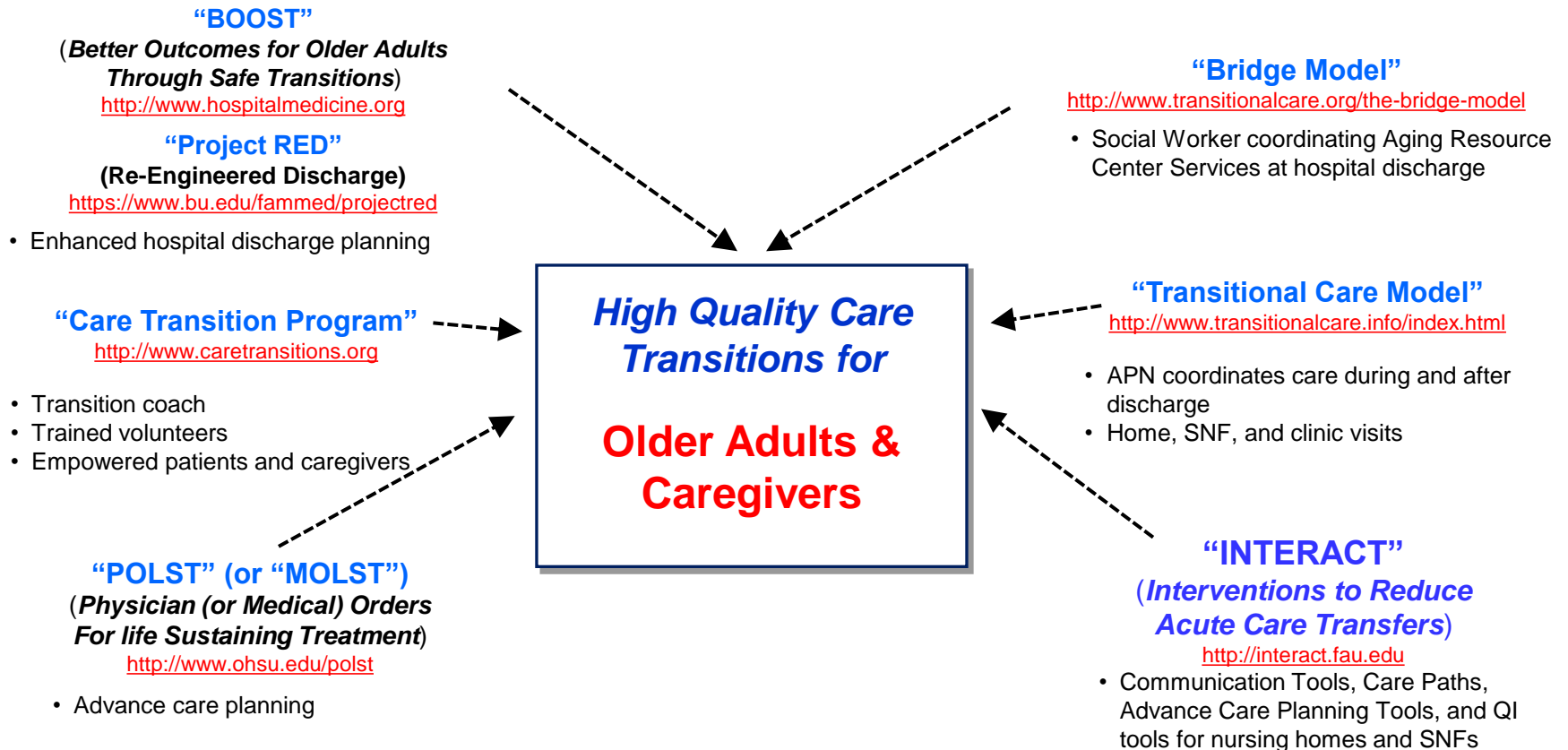
Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

What is Needed for Successful Reduction of
Unnecessary Hospitalizations?



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Examples of Evidence-Based Care Transitions Interventions





The Safe Transitions for At-Risk Patients (“STAR”) Quality Improvement Program

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Malpractice Joint Underwriting Association***

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Vision for the STAR Program



- Multi-faceted to address complex needs of high risk patients, including both in-hospital and post-acute care
- Interdisciplinary
- A critical resource for inter-professional education on patient safety and quality
 - FAU Medical students and residents
 - Hospital staff
 - Local post-acute care providers

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Vision for the STAR Program



- Approved by BRRH and FAU as a QI program
- Provides support for BRRHs evolving programs in bundled payments, ACOs, and other payment reform initiatives
- A QI patient safety database on high risk patients will be developed that is integrated with BRRHs QI initiatives and new EMR

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

STAR Patients



Criteria for High Risk for Complications, Readmissions and ED Visits

1. Readmitted within 30 days
2. Polypharmacy
3. Cognitive Impairment (delirium, dementia)
4. Diagnosis:
 - Fall
 - Syncope or Near-Syncope
 - Shortness of Breath
 - Volume Depletion or AKI
 - Generalized Weakness
 - Failure to Thrive



The STAR Quality Improvement Program

Pre-Intervention Period

July 2015 - June 2016

Intervention Period

July 2016 - June 2017

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Geriatric Evaluation and
Care Transition
Recommendations

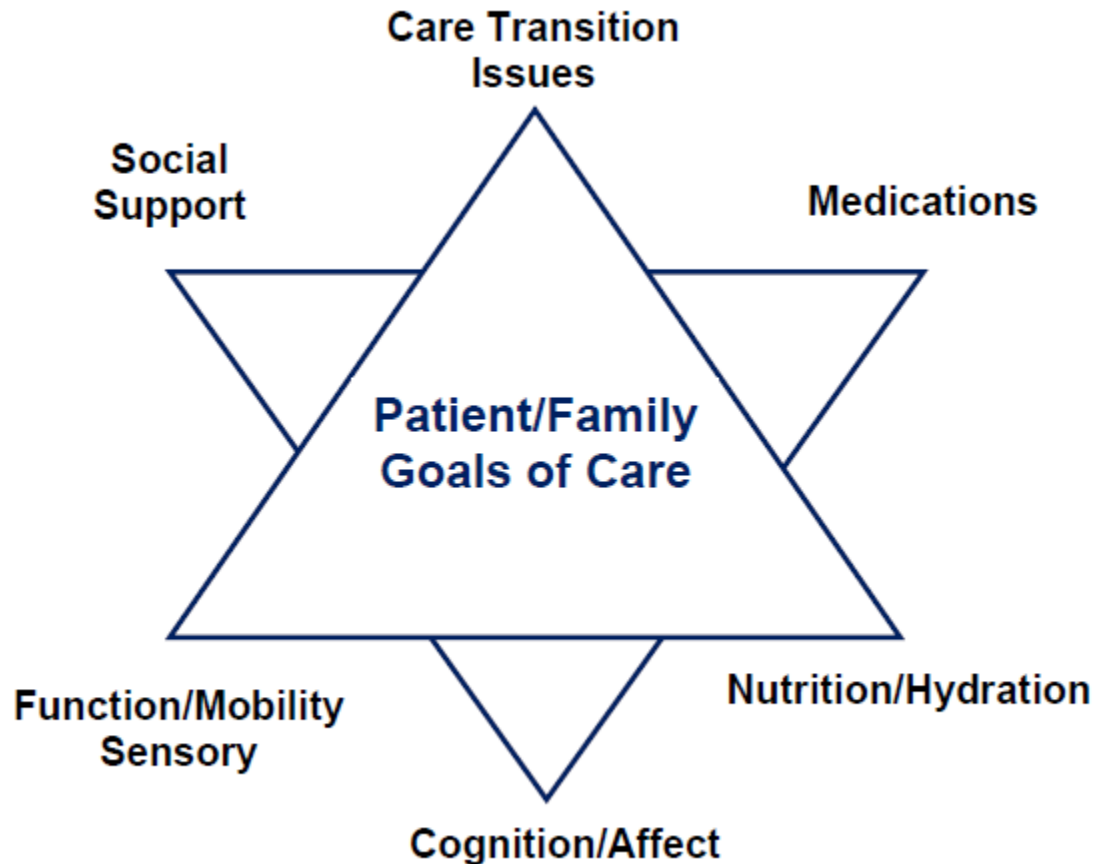
Pre-Discharge
Nursing Assessment
and Education

Post Discharge
Nursing Visits with follow-up on
Geriatric and Care Transition
Recommendations

INTERACT Implementation in
Post-Acute Organizations

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

STAR Program Recommendations



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

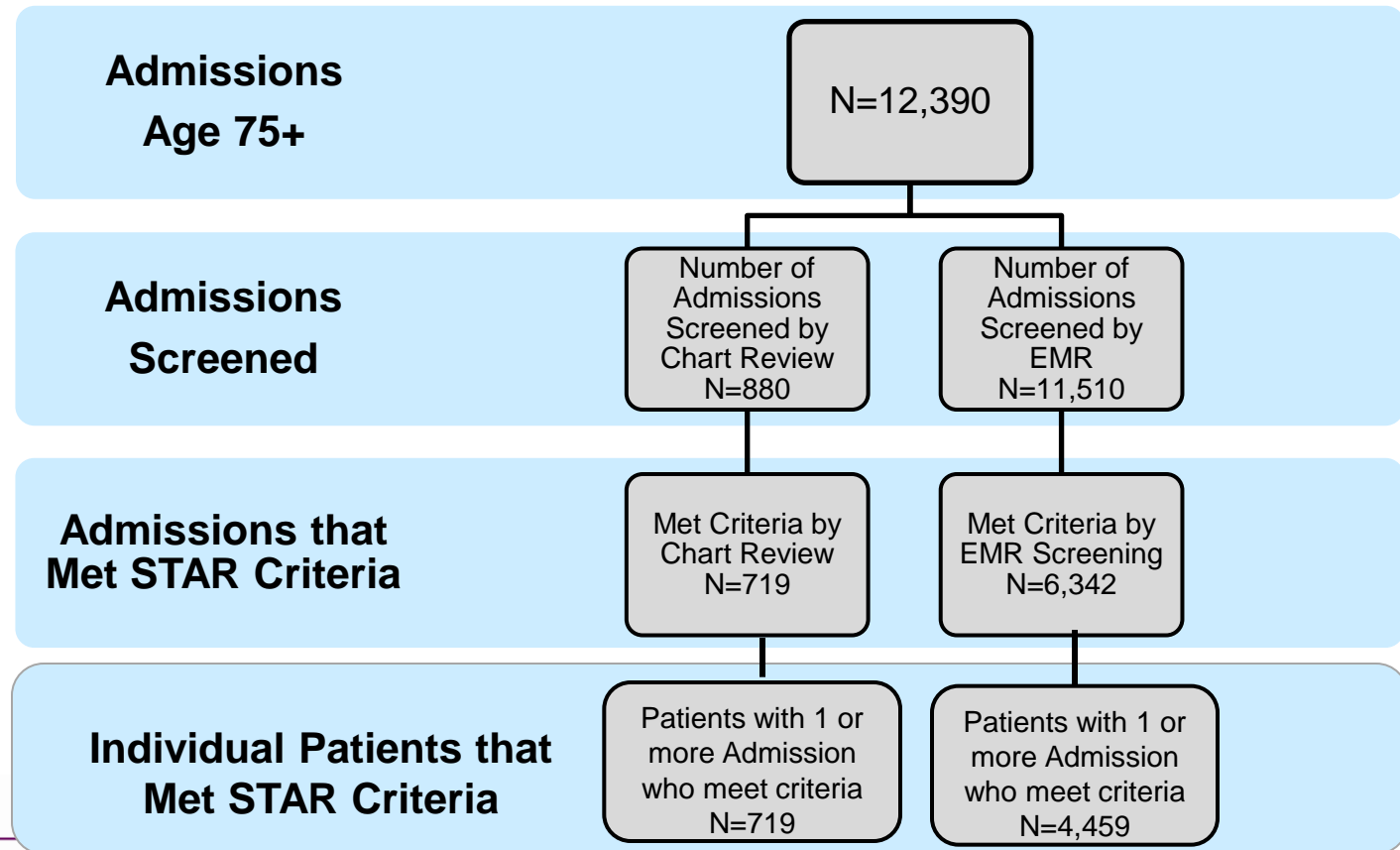
STAR Program Care Transitions Recommendations

<p>Delirium</p>	<ul style="list-style-type: none"> • Consider following diagnostic studies to identify underlying cause(s)... • Consider stopping or tapering the following medications, which can contribute to delirium... • Exclude alcohol or benzodiazepine withdrawal as a cause/contributing factor • Use principles of the Hospital Elder Life Program to manage delirium non-pharmacologically (http://www.hospitalelderlifeprogram.org/) • Avoid physical restraints unless patient is a danger to themselves or others • Use pharmacologic therapy for agitation/aggression only when the patient is a danger to themselves or others <ul style="list-style-type: none"> ○ Low dose pm lorazepam (0.5 – 1 mg) for acute, short term sedation and regularizing sleep pattern ○ Low dose routine (bid) haloperidol or risperidone (0.5 – 1 mg) for less sedating option to manage psychosis, agitation, aggression
<p>Fall risk, gait and balance problems</p>	<ul style="list-style-type: none"> • Ongoing physical therapy for strengthening and balance • Tai Chi (if available and interested) • Consider discontinuing the following medications that can contribute to difficulty walking and or falls.... • Monitor blood pressure and orthostatic vital signs • Change footwear to a type that is supportive with a low heel • Perform a home safety assessment • Use furniture/toilet with elevated seating and arm rests for assistance in elevation from sit to stand • Obtain and emergency response system • Consider treatment and/or prevention for osteoporosis • Consider hip protectors due to high risk of fall and fracture

Safe Transitions for At Risk Patients:

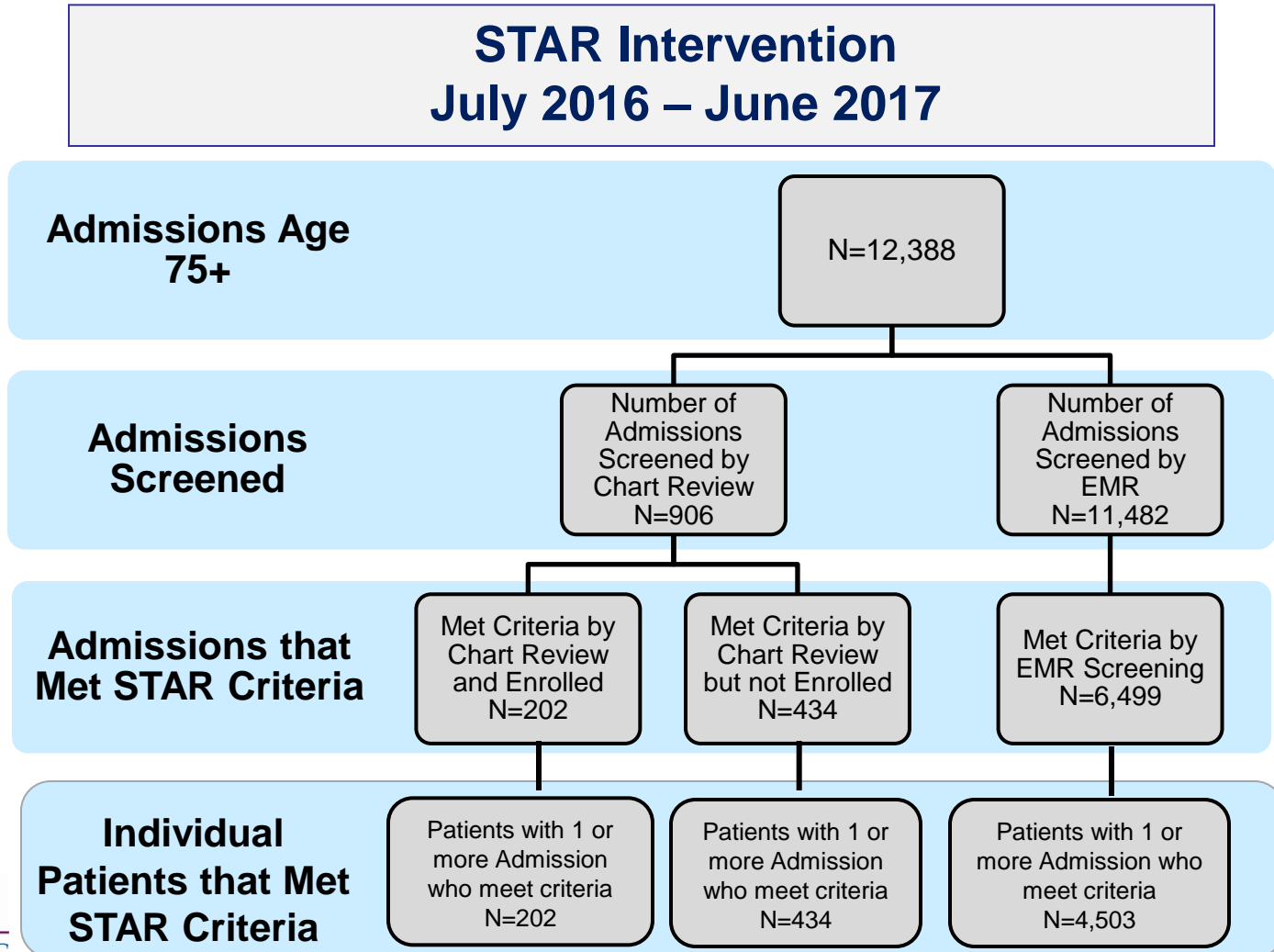
The STAR Program

Baseline Data
July 2015 – June 2016



Safe Transitions for At Risk Patients:

The STAR Program



Safe Transitions for At Risk Patients:

The STAR Program

Data Analyses

Pre-Intervention Period

July 2015 - June 2016

Patients who met criteria by
record review and database

**Pre-Intervention
Comparison Group**

Intervention Period

July 2016 - June 2017

Patients who met criteria
by record review
Not enrolled
+ Patients who met
criteria by database

**Concurrent
Comparison Group**

Patients who met
criteria by record review
Enrolled

**Intervention
Group**

Safe Transitions for At Risk Patients:

The STAR Program

**STAR Intervention
July 2016 – June 2017**

		Met criteria by Record Review and Enrolled (teaching services)	Met criteria by Record Review but not Enrolled (teaching services)	Patients with 1 or more Admission who met criteria by EMR Screening (non-teaching services)
		N=202	N=434	N=4,503
Age		86 (6.1)	86 (6.1)	86 (6.2)
Gender	Female	119 (59)	228 (52)	2,356 (52)
	Male	82 (41)	202 (46)	2,074 (46)
Ethnicity	Not Hispanic or Latino	179 (89)	398 (92)	4,160 (92)
	Hispanic or Latino	14 (6.9)	22 (5.1)	155 (3.4)
	Declined/Missing	9 (4.5)	14 (4.2)	189 (4.2)
Insurance	Medicare fee-for-service	162 (80)	336 (77)	3,588 (80)
	Other	40 (20)	94 (22)	842 (19)

Safe Transitions for At Risk Patients:

The STAR Program

STAR Intervention July 2016 – June 2017

Patient Characteristics		All Admissions	Met criteria by Chart Review and Enrolled (teaching services)	Met criteria by Chart Review but not Enrolled (teaching services)	Met criteria by EMR Screening (non-teaching services)
		N=12,388	N=202	N=434	N=6,499
DNR at discharge	Full Code	10,246 (83)	152 (75)	334 (76)	5,178 (80)
	DNR	1,619 (13)	48 (24)	94 (21)	1,199 (18)
Routine Medications	Admission (mean sd)	5.3 (3.9)	5.7 (3.9)	5.9 (3.9)	5.7 (4.1)
	Discharge (mean sd)	9.5 (5.0)	9.2 (5.6)	9.7 (4.9)	10.1 (5.2)
Fall Risk	Risk score on admission (mean sd) (Scale 0-125)	17 (17)	18 (18)	17 (17)	16 (17)
Died in Hospital		240 (1.9)		7 (1.6)	191 (2.9)

Safe Transitions for At Risk Patients:

The STAR Program

Frequency of ICD 10 Codes
(N = 38,343)

Diagnosis Group	N	%
Cardiovascular	33,764	88%
Endocrine/metabolic	20,943	55%
Renal / Fluids and Electrolytes / Acid-Base	15,029	39%
Neurological Disorders	13,543	35%
Digestive / Nutrition	12,851	34%
Cognitive and Mood Disorders	12,667	33%
Blood Disorders	12,588	33%
Genitourinary	10,557	28%

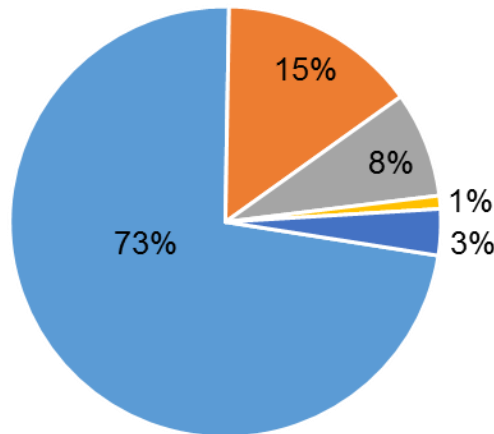
Diagnosis Group	N	%
Respiratory	8,753	23%
Musculoskeletal	8,128	21%
Trauma/Poisoning	7,240	19%
Infectious	5,023	13%
Malignancy	4,335	11%
Skin	2,198	6%
HEENT	1,947	5%
Drug Reactions / Substance Abuse	1,382	4%
Substance Abuse Disorders	561	1%
Other Diagnoses	7,635	20%

Safe Transitions for At Risk Patients: The STAR Program

Met Criteria by Chart Review and Enrolled in STAR
N=202

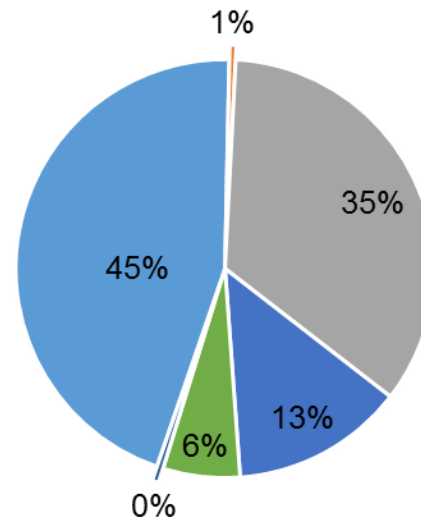
Living Situation Prior to Admission

- Home N=147
- Assisted Living N=30
- SNF N=16
- Acute Rehab N=2
- Missing N=7



Discharge Location

- Home N=91
- Assisted Living N=1
- SNF N=70
- Missing N=27
- Hospice N=12
- Other N=1



Safe Transitions for At Risk Patients:

The STAR Program

STAR Patient Outcomes other than Completed Intervention or Readmitted during Post Discharge Visits

Outcome	N (% of 202)
Unable to reach patient after 3 calls*	16 (8)
Refused post discharge visits*	22 (11)
Admitted to inpatient Hospice within 30 days	13 (6)
Died within 30 days	8 (4)
Moved out of area during post discharge period	4 (2)
Total	63 (31)

*These 38 patients are excluded from readmission rate calculations because they did not participate in the post-discharge intervention

Safe Transitions for At Risk Patients:

The STAR Program

STAR Geriatric and Care Transitions Recommendations

N = 202

Recommendation by Category	Recommendations	Recommendations Followed N (%)
Medications Issues	192	122 (64)
Functional, Mobility, and Sensory Issues	190	133 (70)
Geriatric Conditions	184	133 (72)
Cognition and Affect	141	86 (61)
Nutrition and Hydration Issues	105	90 (86)
Social Support and Care Transition Issues	74	58 (78)
Goals of Care	56	43 (77)
TOTAL	942	665 (71%)

Safe Transitions for At Risk Patients:

The STAR Program

STAR Intervention Outcomes July 2016 – June 2017

Outcomes (unadjusted)	All Admissions	Met criteria by Record Review and enrolled (teaching services)	Met criteria by Chart Review but not enrolled (teaching services)	Met criteria by EMR Screening (non-teaching services)
	N=12,388	N=202	N=434	N=6,499
At least one readmission at BRRH within 30 days of discharge	1,719 (14%)	36 (18%)	69 (16%)	1,097 (17%)
At least one ED visit w/o admission at BRRH within 30 days of discharge	772 (6.2%)	19 (9.4%)	33 (7.6%)	455 (7.0%)

Safe Transitions for At Risk Patients:

The STAR Program

Preventability Ratings of 30-Day Readmissions of STAR Intervention Patients (N = 36)

Discharge Location	Preventable	Not Preventable
Home/ALF	6	13
SNF	8	8
Acute Rehab Hospital	0	1
Total	14 (39%)	22 (61%)

Safe Transitions for At Risk Patients:

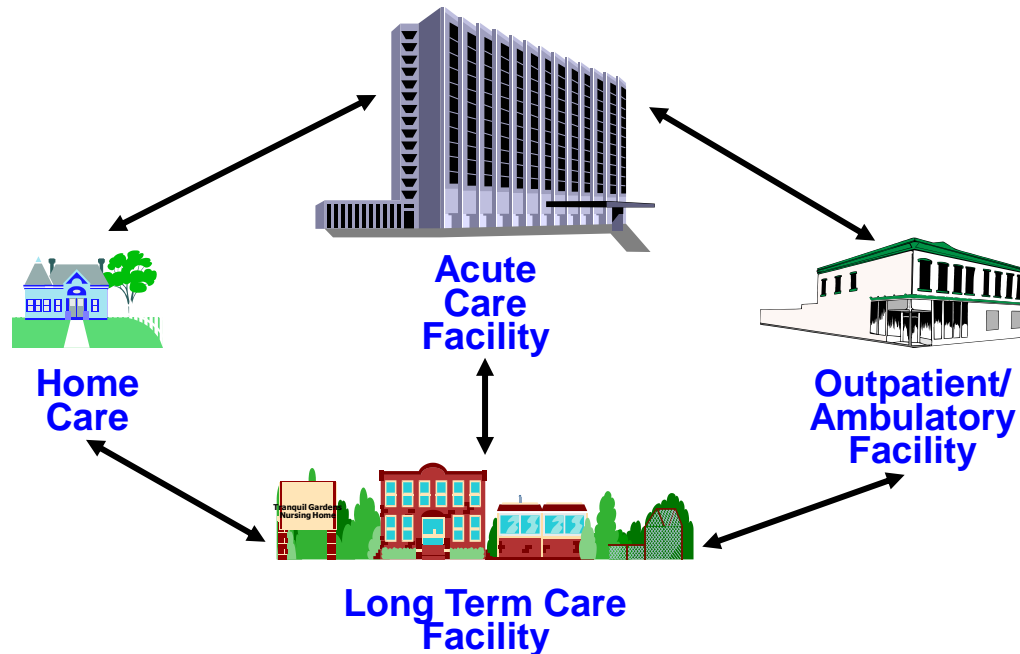
The STAR Program

Examples of 30-Day Readmissions Rated as Preventable vs. Not Preventable

Readmissions Rated as Preventable	<ul style="list-style-type: none">▪ 81 year old woman discharged home after COPD exacerbation. Non-adherent to use of walker. Readmitted with hip fracture. Probably should have been discharged to a SNF for inpatient rehab.▪ 80 year old man discharged home after episode of CHF. Readmitted with near syncope related to OH and volume depletion. Needed more careful management of diuretics, but missed PCP visit.▪ 90 year old woman discharged to a SNF after COPD exacerbation; oxygen dependent. Readmitted with COPD exacerbation and pneumonia. Also had multiple hospitalizations at other hospitals. Palliative care consultation ordered, but surrogate refused hospice care.
Readmissions Rated as Not Preventable	<ul style="list-style-type: none">▪ 90 year old female discharged home after pacemaker placement for bradycardia related to atrial fib. Readmitted one day later with symptoms of an acute stroke.▪ 96 year old discharged to an ALF after a syncopal episode. Readmitted 10 days later with diverticulitis.▪ 95 year old man with multiple admissions for CHF, atrial fib, and pleural effusions. Refused follow-up home care.▪ 92 year old female with dementia and multiple admissions for aspiration pneumonia. Family refused to consider advance directives and care limiting orders.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

“Post-Acute Care Transition Quality Coalition” (A Precursor to a “Narrow Network”)



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population



Is a **quality improvement program** designed to improve the care of older people with acute changes in condition in nursing homes, assisted living facilities, and home health care

<http://www.interact-pathway.com>

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

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Colorado Foundation for Medical Care
Georgia Medical Care Foundation
Vanderbilt University
University of Minnesota



In collaboration with many participating LTC organizations, professionals and facilities

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

The INTERACT
Program is free for
clinical and educational
use at:

[http://www.interact-
pathway.com](http://www.interact-pathway.com)



Interventions to Reduce Acute Care Transfers

Home ♦ About INTERACT ♦ INTERACT Tools ♦ Educational Resources ♦ Links to Other Resources ♦ Project Team ♦ Contact Us

What is INTERACT?

INTERACT (Interventions to Reduce Acute Care Transfers) is a quality improvement program that focuses on the management of acute change in resident condition. It includes clinical and educational tools and strategies for use in every day practice in long-term care facilities.

 **INTERACT Project Team Section**
[Click here to login if you already have a username](#)



What is the purpose of INTERACT?

INTERACT is a quality improvement program designed to improve the early identification, assessment, documentation, and communication about changes in the status of residents in skilled nursing facilities. The goal of INTERACT is to improve care and reduce the frequency of potentially avoidable transfers to the acute hospital. Such transfers can result in numerous complications of hospitalization, and billions of dollars in unnecessary health care expenditures.

Did you know...

- One in 5 Medicare patients admitted to skilled nursing facilities from hospitals is readmitted to the hospital within 30 days?
- Up to 2/3 of hospital transfers are rated as potentially avoidable by expert long-term care health professionals?

Announcements

- [Hospitalization Rate Tracking Tool has been updated as of March 6, 2017 – please use the version dated March 6, 2017 – thanks to users for detecting error messages which have been corrected](#)
- [2017 INTERACT Hospitalization Tracking Tool and Bridging Instructions now available.](#)
- [NEW FAU signs an agreement with Pathway Health for INTERACT Training and Licensing](#)
- [NEW Decision Guide Available: Go To The Hospital or Stay Here?](#)
- [NEW STOP and Watch Tools now available in Creole](#)

Publications Related to INTERACT

- [NEW INTERACT Compatible Clinician Order Sets](#)
- [NEW Potentially Avoidable ED Visits](#)
- [NEW Root Cause Analyses of SNF to Hospital Transfers](#)

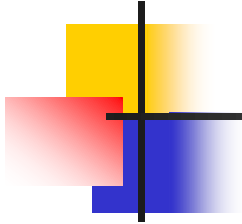


Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

INTERACT Strategies

1. **Prevent** conditions from becoming severe enough to require hospitalization through **early identification and evaluation** of changes in resident condition
2. **Manage** some conditions without transfer when this is feasible and safe
3. **Improve advance care planning** and the use of palliative care plans when appropriate as an alternative to hospitalization for some residents
4. **Improve communication and documentation** within LTC facilities and programs, and between LTC and acute care
5. **Integrate into ongoing QI initiatives**
6. **Combine INTERACT with other care transitions interventions**
7. **Embed in Health Information Technology** across care settings

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population



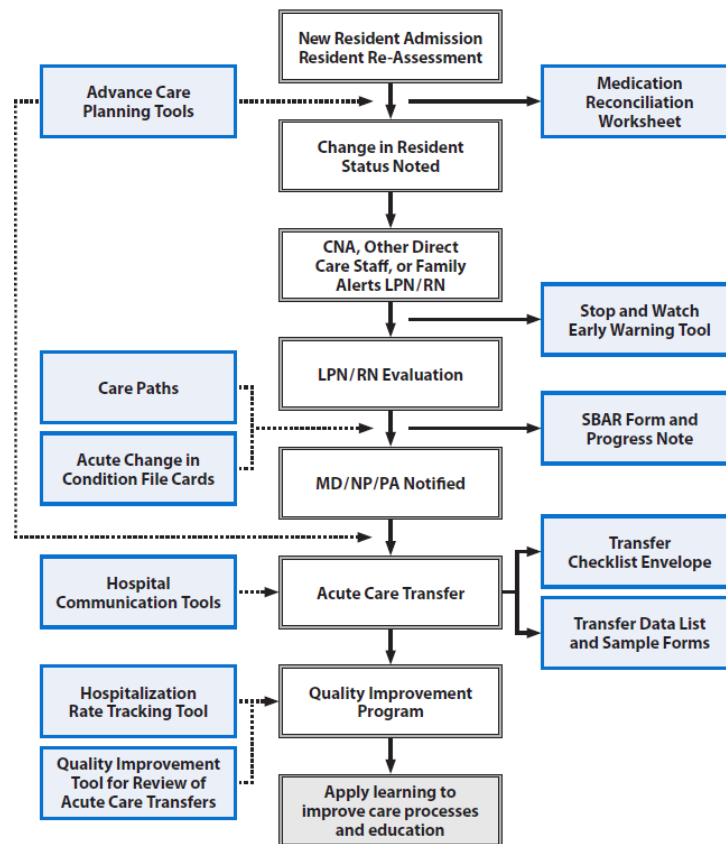
Quality Improvement Tools

Communication Tools

Decision Support Tools

Advance Care Planning Tools

Using the INTERACT Tools In Every Day Care



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Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Root-Cause Analyses of Transfers

Quality Improvement Tool *For Review of Acute Care Transfers*



The INTERACT QI Tool is designed to help your team analyze hospital transfers and identify opportunities to reduce transfers that might be preventable. Complete this tool for each or a representative sample of hospital transfers in order to conduct a root cause analysis and identify common reasons for transfers. Examining trends in these data with the INTERACT QI Summary Tool can help you focus educational and care process improvement activities.

Patient _____ Age _____

Date of most recent admission to the facility ____/____/____

Primary goal of admission Post-acute care Long-stay Other _____

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Quality Improvement Tool For Review of Acute Care Transfers



SECTION 5: Identify Opportunities for Improvement

a. In retrospect, does your team think this transfer might have been prevented? No Yes (describe)

If yes, check one or more that apply:

- The new sign, symptom, or other change might have been detected earlier
- Changes in the resident's condition might have been communicated better among facility staff, with physician/NP/PA, or other health care providers
- The condition might have been managed safely in the facility with available resources
- Resources were not available to manage the change in condition safely or effectively despite staff willing to manage in the facility (check all that apply)
 - On-site primary care clinician
 - Pharmacy services
 - Staffing
 - Other (describe) _____
 - Lab or other diagnostic tests
- Resident and family preferences for hospitalization might have been discussed earlier
- Advance directives and/or palliative or hospice care might have been put in place earlier
- Discharged from the hospital too soon in unstable condition
- Other (describe)

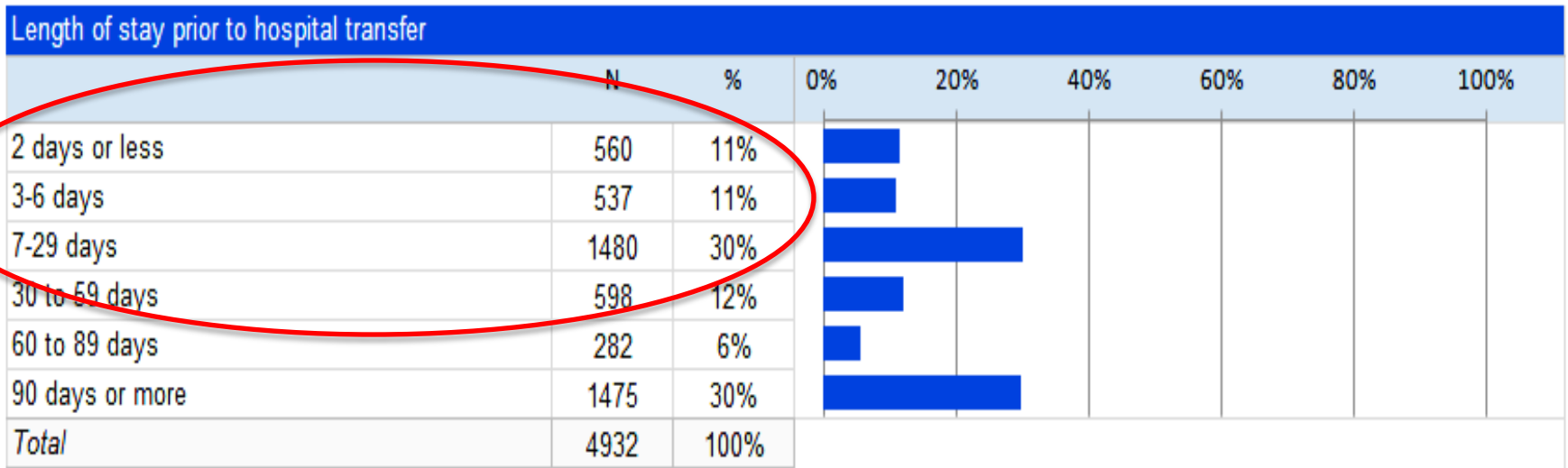
b. In retrospect, does your team think this resident might have been transferred sooner? No Yes (if yes, describe)

c. After review of how this change in condition was evaluated and managed, has your team identified any opportunities for improvement?

- No Yes (describe specific changes your team can make in your care processes and related education as a result of this review)

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

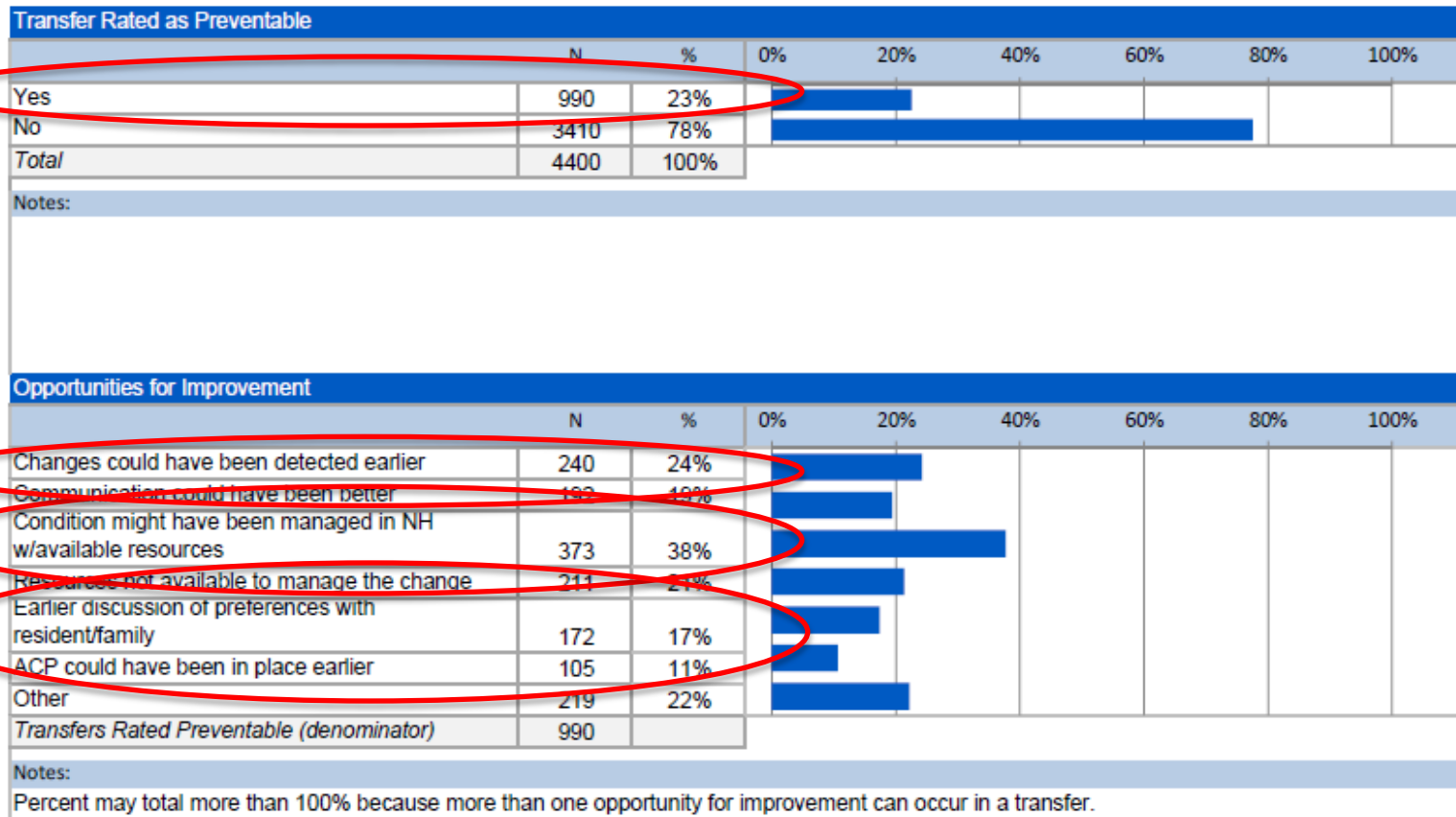
Days Since Admission to the SNF



Ouslander, JG, Naharci, I, Engstrom, G, et al: J Am Med Dir Assn 2016; 17:256-262.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Opportunities for Improvement



Ouslander, JG, Naharci, I, Engstrom, G, et al: J Am Med Dir Assn 2016; 17:256-262.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Hospital - SNF Collaborative Root-Cause Analyses of Readmissions

Rating by SNF Staff using INTERACT QI Tool		Rating by Hospital Physicians		
		Preventable?		
		Yes	No	Total
Preventable?	Yes	11	9	20 (13%)
	No	36	98	134 (87%)
Total		47 (31%)	107 (69%)	154

Agreement: 109/154 = 71%

Disagreement: 45/154 = 29%

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Early Identification and Communication of Changes in Condition

Stop and Watch Early Warning Tool



If you have identified a change while caring for or observing a resident, please **circle** the change and notify a nurse. Either give the nurse a copy of this tool or review it with her/him as soon as you can.

- S** Seems different than usual
- T** Talks or communicates less
- O** Overall needs more help
- P** Pain – new or worsening; Participated less in activities
- a** Ate less
- n** No bowel movement in 3 days; or diarrhea
- d** Drank less
- W** Weight change
- A** Agitated or nervous more than usual
- T** Tired, weak, confused, or drowsy
- C** Change in skin color or condition
- H** Help with walking, transferring, toileting more than usual

Check here if no change noted while monitoring high risk patient

Patient / Resident

Your Name

Reported to

Date and Time (am/pm)

Nurse Response

Date and Time (am/pm)

Nurse's Name

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Licensed Nurse Evaluation and Communication of Changes in Condition to Clinician

SBAR Communication Form

and Progress Note for RN/LPN



Before Calling the Physician / NP / PA / other Healthcare Professional:

- Evaluate the Resident:** Complete relevant aspects of the SBAR form below
- Check Vital Signs:** BP, pulse, and/or apical heart rate, temperature, respiratory rate, O₂ saturation and finger stick glucose for diabetics
- Review Record:** Recent progress notes, labs, medications, other orders
- Review an INTERACT Care Path or Acute Change in Condition File Card,** if indicated
- Have Relevant Information Available when Reporting**
(i.e. medical record, vital signs, advance directives such as DNR and other care limiting orders, allergies, medication list)



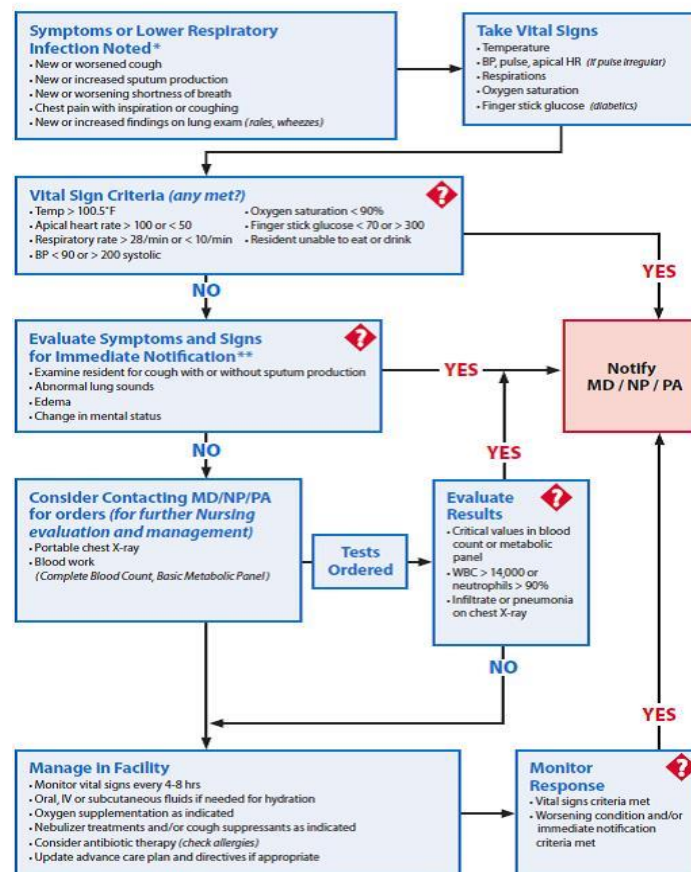
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Evidence and Expert-Recommended Decision Support

INTERACT Care Paths

- Acute Mental Status Change
- Change in Behavior: New or Worsening Behavioral Symptoms
- Dehydration
- Fall
- Fever
- GI Symptoms – nausea, vomiting, diarrhea
- Shortness of Breath
- Symptoms of CHF
- Symptoms of Lower Respiratory Illness
- Symptoms of UTI

CARE PATH Symptoms of Lower Respiratory Infection



* Refer also to the INTERACT Shortness of Breath Care Path
** Refer also to other INTERACT Care Paths as indicated by symptoms and signs

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Information Transfer to the Hospital

This **Acute Care Transfer Document Checklist** can be printed or taped onto an envelope, and identifies documents transferred with the patient

Acute Care Transfer Document Checklist



Resident Name _____

Facility Name _____ Tel _____

Copies of Documents Sent with Resident *(check all that apply)*

Documents Recommended to Accompany Resident

- Resident Transfer Form
- Face Sheet
- Current Medication List or Current MAR
- SBAR and/or other Change in Condition Progress Note *(if completed)*
- Advance Directives *(Durable Power of Attorney for Health Care, Living Will)*
- Advance Care Orders *(POLST, MOLST, POST, others)*

Send These Documents *if indicated:*

- Most Recent History and Physical
- Recent Hospital Discharge Summary
- Recent MD/NP/PA and Specialist Orders
- Flow Sheets *(e.g. diabetic, wound care)*
- Relevant Lab Results *(from the last 1-3 months)*
- Relevant X-Rays and other Diagnostic Test Results
- Nursing Home Capabilities Checklist *(if not already at hospital)*

Emergency Department:

Please ensure that these documents are forwarded to the hospital unit if this resident is admitted.
Thank you.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

The SNF to Hospital Transfer Form has:

- Information that ED physicians and nurses identified as essential to make decisions about the resident
- Consistent and clear clinical terms

Nursing Home to Hospital Transfer Form



Resident Name (last, first, middle initial) _____
 Language: English Other _____ Resident is: SNF/rehab Long-term
 Date Admitted (most recent) _____ / _____ / _____ DOB _____ / _____ / _____
 Primary diagnosis(es) for admission _____

Sent To (name of hospital) _____
 Date of transfer _____ / _____ / _____
Sent From (name of nursing home) _____ Unit _____

Contact Person _____
 Relationship (check all that apply)
 Relative Health care proxy Guardian Other _____
 Tel (_____) _____
 Notified of transfer? Yes No
 Aware of clinical situation? Yes No

Who to Call at the Nursing Home to Get Questions Answered
 Name/Title _____
 Tel (_____) _____

Primary Care Clinician in Nursing Home MD NP PA
 Name _____
 Tel (_____) _____

Code Status Full Code DNR DNI DNH Comfort Care Only Uncertain

Key Clinical Information
 Reason(s) for transfer _____
 Is the primary reason for transfer for diagnostic testing, not admission? No Yes Tests: _____
 Relevant diagnoses CHF COPD CRF DM Ca (active treatment) Dementia Other _____
 Vital Signs BP _____ HR _____ RR _____ Temp _____ O2 Sat _____ Time taken (am/pm) _____
 Most recent pain level _____ (N/A) Pain location: _____
 Most recent pain med _____ Date given _____ / _____ / _____ Time (am/pm) _____

Usual Mental Status:
 Alert, oriented, follows instructions
 Alert, disoriented, but can follow simple instructions
 Alert, disoriented, but cannot follow simple instructions
 Not Alert

Usual Functional Status:
 Ambulates independently
 Ambulates with assistive device
 Ambulates only with human assistance
 Not ambulatory

Additional Clinical Information:
 SBAR Acute Change in Condition Note Included
 Other clinical notes included
 For residents with lacerations or wounds:
 Date of last tetanus vaccination (if known) _____ / _____ / _____

Devices and Treatments
 O2 at _____ L/min by Nasal canula Mask (Chronic New)
 Nebulizer therapy: (Chronic New)
 CPAP BIPAP Pacemaker IV PICC line
 Bladder (Foley) Catheter (Chronic New) Internal Defibrillator
 Enteral Feeding TPN Other _____

Isolation Precautions
 MRSA VRE
 Site _____
 C. difficile Norovirus
 Respiratory virus or flu
 Other _____

Allergies

Risk Alerts
 Anticoagulation Falls Pressure ulcer(s) Aspiration Seizures
 Harm to self or others Restraints Limited/non-weight bearing: (Left Right)
 May attempt to exit Swallowing precautions Needs meds crushed
 Other _____

Personal Belongings Sent with Resident
 Eyeglasses Hearing Aid
 Dental Appliance Jewelry
 Other _____

Nursing Home Would be able to Accept Resident Back Under the Following Conditions
 ER determines diagnoses, and treatment can be done in NH VS stabilized and follow up plan can be done in NH
 Other _____

Additional Transfer Information on a Second Page:
 Included Will be sent later

Form Completed By (name/title) _____ **Signature** _____
Report Called in By (name/title) _____
Report Called in To (name/title) _____ **Date** _____ / _____ / _____ **Time** (am/pm) _____

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Information Transfer From the Hospital

The **Hospital to Post-Acute Care Data List** has recommended contents for transfer forms for incorporation into standard forms and electronic sharing of data

Hospital to Post-Acute Care Data List



This list is intended to provide guidance on key data elements critical for safe and effective care at the time of transition of a patient out of the hospital to a post-acute care setting. It is not intended to be comprehensive. The INTERACT Hospital Post-Acute Care Transfer Form illustrates an example of how these data can be formatted so that the data are readily accessible for receiving clinicians.

Contact Information

- Patient name
- DOB
- Language
- Race/Ethnicity
- Family/ Caregiver/ Proxy contact name
 - Contact number
- Family/ Caregiver/ Proxy contact name (if different)
 - Contact number

Code Status

- Full Code
- DNR (Do Not Resuscitate)
- DNI (Do Not Intubate)
- DNH (Do Not Hospitalize)
- No artificial feeding
- Comfort Care
- Hospice
- Other
- Goals of care discussed with patient
 - Yes
 - No
- Patient capable of making decisions
 - Yes
 - Requires proxy

Transferring Information

- Hospital name
- Unit
- Discharging RN
 - Contact number
- Discharging MD
 - Contact number

Post-Acute Care Information

- Hospital name
- Contact number
- Verbal report given
 - Contact name

Hospital Physician Care Team Information

- Primary Care Physician
 - Contact number
- Specialist
 - Contact number

Key Clinical Information

Vital Signs

- Time taken
- Pain rating
- Pain site
- Temperature
- BP
- HR
- RR
- O₂ Saturation
- Weight

Mental Status

- Alert
- Disoriented, follows commands
- Disoriented, cannot follow commands
- Not alert

High Risk Conditions

- Fall risk
- Heart failure
 - New diagnosis
 - Exacerbation this admission
 - Date of last echo
 - EF
 - Dry weight
- Anticoagulation
 - Reason
 - Goal of International Normalization Ratio
- On PPI
 - Indication(s)
- On Antibiotics
 - Indication(s)
 - Course of treatment
- Diabetic
 - Most recent glucose

Procedures and Key Findings

- List procedures
 - Surgeries
 - Imaging
- Key findings

Medications/Allergies

- Medication list attached
- Hard copy for controlled substances
- Allergies
- Pain medications
 - Dose
 - Last given

Nursing Care

Physical and Sensory Function

- Ambulation
 - Independent
 - With assistance
 - With assistive device
 - Not ambulatory
- Weight bearing
 - Full
 - Partial (L/R)
 - None (L/R)

Transfer

- Self
- 1-Person assist
- 2-Person assist

Sensory Function

- Sight
- Hearing

Devices

- Wheelchair
- Walker
- Cane
- Crutches
- Prostheses
- Glasses
- Contacts
- Dentures
- Hearing aid

(continued on reverse)

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Information Transfer from the Hospital

- The **Hospital to Post-Acute Care Transfer Form** highlights **Critical Time Sensitive Information**

L. Critical Transitional Care Information: Pending Tests and Follow-Up

Summarize high-priority care needs for next 24-48 hrs (Including essential medications, pain control, tests needed, follow-up): _____

Pending Lab and Test Results: _____

Recommended Follow-Up Tests, Procedures, Appointments: _____

- But, there is no substitute for a **warm handoff**

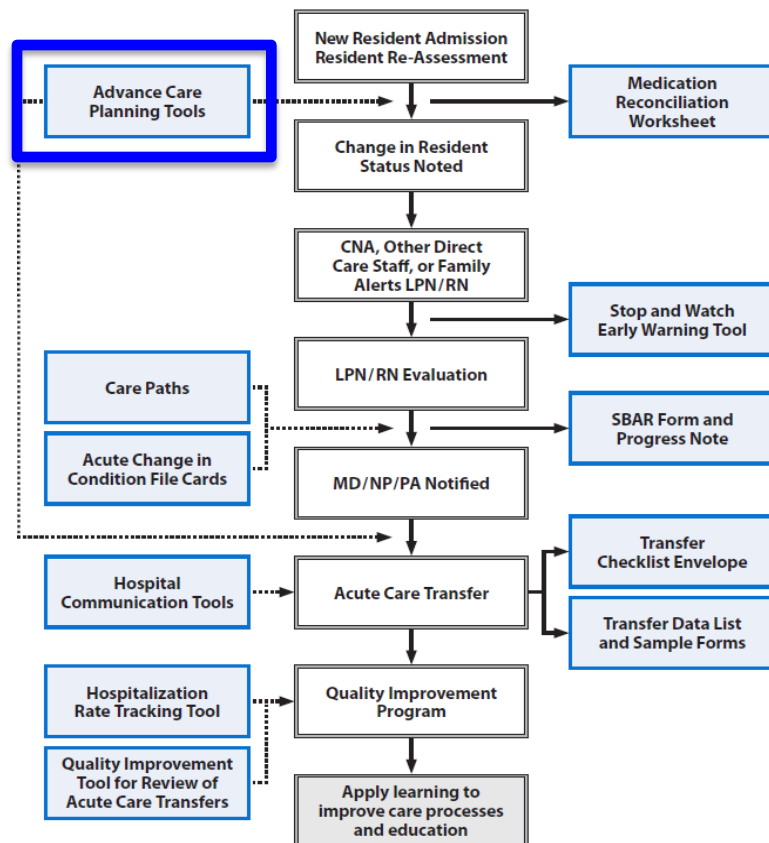


Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Advance Care Planning Tools



Using the INTERACT Tools In Every Day Care



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ACP Gone Wrong – A Case Example

- 93 year old living with son and daughter-in-law
- Progressive multi-infarct dementia
- Former LPN, who does not want CPR or other intensive end of life care
 - Had “Yellow DNR form”
- Fell and fractured hip – DNR form lost on the way to the hospital
- Another Yellow form completed in the hospital – lost on the way to the SNF

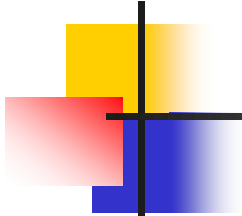


Mama O's
Desserts



Helen Ouslander
“Mama O”

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population



- Includes key aspects of discussion, often missing during care transitions



Advance Care Planning Tracking Form



Resident Name _____

Residents and/or their responsible health care decision makers should be provided the opportunity to discuss advance care planning with appropriate staff members and medical providers within the first few days of admission to the facility, at times of change in condition, and periodically for routine updating of care plans. The purpose of this tool is to document these discussions. (Several other INTERACT Advanced Care Planning Tools may be helpful in ACP discussion)

This documentation is to
 Create a new Advance Care Plan Review existing Advance Care Plan

Reason for this discussion/review
 Admission Change in condition alert Other
 Readmission Resident or Family Request

This discussion was held with
 Resident Resident's surrogate Name _____

Was an Advance Care Plan created or change made, as a result of this discussion?

No
 Resident declined conversation Resident/surrogate not available at this time
 Surrogate declined conversation

Yes
 Describe the Key Aspects of the discussion _____

Advance Directive Orders in Place**
 (Any change in Advance Directives needs an order signed by the physician per your state requirements)
 Check all that apply

Full Code DNR No Artificial Feeding
 DNI POLST/MOLST/POST
 DNH Other Care Limiting Orders

Is the resident on
 Comfort Care/Palliative Care Plan
 Hospice

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Deciding About Going to the Hospital



Older nursing home residents commonly develop new or worsening symptoms. When this occurs, a decision may be needed about whether to continue care in the nursing home or go to a hospital.

Because there are risks as well as benefits of care in a hospital, it is important to make the right decision. The decision depends on a number of factors, and how the nursing home resident and her or his relatives view the benefits and risks of care in the hospital as opposed to the nursing home.

Research has shown that some hospitalizations may be unnecessary. Whether hospitalization can be prevented depends on the resident's condition, the ability of the staff to provide the care necessary in the nursing home, and the preferences of the resident and her or his family.

Benefits of Hospital Care

There are many symptoms and conditions that usually require treatment in the hospital – for example, if vital signs are very abnormal (temperature, heart rate, or breathing rate), or if symptoms are severe and can't be controlled (such as pain or vomiting). Hospital care offers benefits in these situations, including:

- Ready availability of sophisticated lab tests, X-rays, and scans
- Access to doctors and specialists who are in the hospital every day
- Availability of surgery and other procedures if needed
- Intensive care units for people who are critically ill

Risks of Hospital Care

Nursing home residents are prone to many complications of care in a hospital. These complications may occur even in the best hospitals, because older age, chronic medical problems, and the condition that caused the transfer all combine with the hospital environment to put nursing home residents at high risk for complications. These complications include:

- New or worsening confusion
- More time spent in bed, which can increase the risk of blood clots, pressure ulcers, muscle weakness, loss of function, and other complications
- Less sleep and rest due to tests, monitoring, and noise
- Increased risk for:
 - Falls with injuries, such as cuts, bruises, and broken bones
 - New infections
 - Depression due to limited opportunities to socialize with friends and family, as well as being in an unfamiliar environment



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Implementation Model in the Commonwealth Fund Project

- Collaborative quality improvement project
- Convenience sample of 30 NHs in 3 states
- Non-randomized, pre-post design
- On site training for part of one day
- Facility-based champion
- Phone calls with 10 facility champions twice monthly facilitated by an experienced nurse practitioner
 - Availability for telephone and email consults
- Completion and submission of root cause analyses (INTERACT QI Tools)

Ouslander et al, J Am Geriatr Soc 59:745–753, 2011



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Reducing Unnecessary Hospitalizations from Nursing Homes: A Randomized, Controlled Implementation Trial

Supported by a grant from the National Institutes of Health (1R01NR012936)

ClinicalTrials.gov Identifier: NCT02177058



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

INTERACT Randomized, Controlled Implementation Trial

JAMA Internal Medicine | Original Investigation

Effects of an Intervention to Reduce Hospitalizations From Nursing Homes A Randomized Implementation Trial of the INTERACT Program

Robert L. Kane, MD; Peter Huckfeldt, PhD; Ruth Tappen, EdD, RN; Gabriella Engstrom, PhD, RN;
Carolina Rojido, MD; David Newman, PhD; Zhiyou Yang, BS; Joseph G. Ouslander, MD

JAMA Intern Med. doi:10.1001/jamainternmed.2017.2657
Published online July 3, 2017.

Key Points

Question Did training and support for implementation of a nursing home (NH) quality improvement program (Interventions to Reduce Acute Care Transfers [INTERACT]) reduce hospitalizations and emergency department (ED) visits?

Findings Among 85 NHs with no prior use of INTERACT, we compared preintervention and postintervention changes in hospitalization and ED visit rates for NHs randomly assigned to receive training and implementation support on INTERACT to changes in control NHs. We found no statistically significant effect on hospitalizations per 1000 NH residents.

Meaning Training and support for INTERACT implementation as carried out in this study had no effect on hospitalization or ED visit rates in participating NHs.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

“Difference in Difference” Analysis of Hospitalization Outcomes During INTERACT Implementation

~15% reduction in PAH

Table 3. Intent-to-Treat Analysis for NHs With No Baseline Use of INTERACT

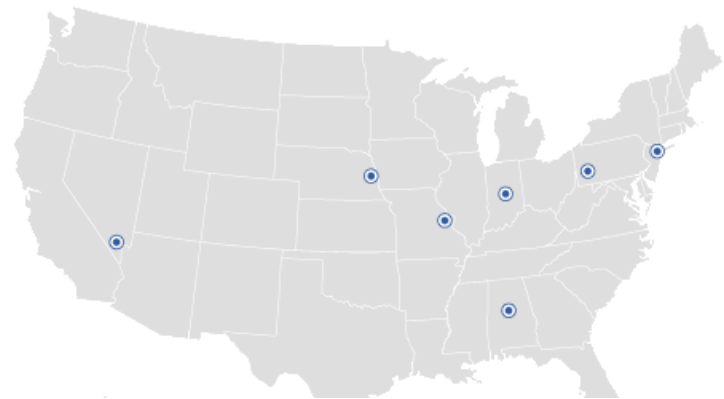
Hospitalization and ED Visit Outcomes	Preintervention (January 2012-February 2013)		During Intervention (March 2013-February 2014)		Change in Intervention NHs Minus Change in Control NHs ^a (95% CI)	P Value
	Intervention (33 Unique NHs; 9050 Unique Residents)	Control (52 Unique NHs; 14 428 Unique Residents)	Intervention (33 Unique NHs; 8380 Unique Residents)	Control (52 Unique NHs; 13 472 Unique Residents)		
	Mean (SD) ^b	Mean (SD) ^b	Mean (SD) ^b	Mean (SD) ^b		
Hospitalizations						
All-cause admissions	3.66 (1.40)	3.70 (1.60)	3.25 (1.26)	3.42 (1.44)	-0.13 (-0.36 to 0.10)	.25
All-cause admissions within 30 d of NH admission	9.99 (5.46)	9.93 (5.44)	8.59 (4.90)	8.93 (4.58)	-0.37 (-1.40 to 0.67)	.48
All admissions, >31 d after NH admission	2.04 (1.04)	2.10 (1.24)	1.88 (0.98)	2.02 (1.27)	-0.09 (-0.28 to 0.11)	.39
Potentially avoidable hospitalizations	1.22 (0.75)	1.03 (0.80)	0.94 (0.67)	0.92 (0.74)	-0.18 (-0.31 to -0.04)	.01
30-d readmission rate	0.21 (0.16)	0.21 (0.16)	0.19 (0.16)	0.21 (0.18)	-0.01 (-0.04 to 0.01)	.36
ED Visits						
Visits that did not result in hospital admission	1.97 (1.01)	2.07 (1.23)	1.93 (1.02)	2.02 (1.12)	0.02 (-0.17 to 0.22)	.83

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Phase 1 (2012-2016)

- Tested collaborative care models to reduce avoidable hospital transfers among long-stay residents
- All programs placed additional personnel on-site in nursing facilities
- Some provided direct care to residents and families; some focused only on indirect care – training and support for staff and quality improvement
- At least 15 partner facilities were required, with average census >100 residents

Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents



Alabama Quality Assurance Foundation – Alabama ▶ [Read more](#)

Alegent Health – Nebraska ▶ [Read more](#)

HealthInsight of Nevada – Nevada ▶ [Read more](#)

Indiana University – Indiana ▶ [Read more](#)

The Curators of the University of Missouri – Missouri ▶ [Read more](#)

The Greater New York Hospital Foundation, Inc. – New York City ▶ [Read more](#)

UPMC Community Provider Services - Pennsylvania ▶ [Read more](#)

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Phase 1 Results

- 3%-40% reduction in probability of an all-cause hospitalization for participating residents
- 6%-58% reduction in probability of a potentially avoidable hospitalization for participating residents
- Medicare expenditures were reduced by:
 - \$60–\$2,248 per resident for all-cause hospitalizations
 - \$98–\$577 per resident for potentially avoidable hospitalizations
- Estimated net Medicare spending reduction in 2015 was \$11 million

MEDICARE INNOVATION

By Melvin J. Ingber, Zhanlian Feng, Galina Khatutsky, Joyce M. Wang, Lauren E. Bercaw, Nan Tracy Zheng, Alison Vadnais, Nicole M. Coomer, and Micah Segelman

AGING & HEALTH

Initiative To Reduce Avoidable Hospitalizations Among Nursing Facility Residents Shows Promising Results

DOI: 10.1377/hlthaff.2016.1310
HEALTH AFFAIRS 36,
NO. 3 (2017): 441-450
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The People-to-People Health
Foundation, Inc.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

JAMDA 18 (2017) 960–966



JAMDA

journal homepage: www.jamda.com



Original Study

Successfully Reducing Hospitalizations of Nursing Home Residents: Results of the Missouri Quality Initiative



Marilyn J. Rantz PhD, RN, FAAN^{a,*}, Lori Popejoy PhD, APRN, GCNS-BC, FAAN^a,
Amy Vogelsmeier PhD, RN, FAAN^a, Colleen Galambos PhD^b, Greg Alexander PhD, RN, FAAN^a,
Marcia Flesner PhD, RN^a, Charles Crecelius MD, PhD, CMD^a, Bin Ge MD, MA^c,
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^c Office of Medical Research, School of Medicine, University of Missouri, Columbia, Missouri

A B S T R A C T

Keywords:

Nursing homes
hospitalizations
avoidable hospitalizations
Medicare beneficiaries
interventions
care transitions
end-of-life care
health information technology
performance feedback reports

Purpose: The goals of the Missouri Quality Initiative (MOQI) for long-stay nursing home residents were to reduce the frequency of avoidable hospital admissions and readmissions, improve resident health outcomes, improve the process of transitioning between inpatient hospitals and nursing facilities, and reduce overall healthcare spending without restricting access to care or choice of providers. The MOQI was one of 7 program sites in the United States, with specific interventions unique to each site tested for the Centers for Medicaid and Medicare Services (CMS) Innovations Center.

Design and methods: A prospective, single group intervention design, the MOQI included an advanced practice registered nurse (APRN) embedded full-time within each nursing home (NH) to influence resident care outcomes. Data were collected continuously for more than 3 years from an average of 1750 long-stay Medicare, Medicaid, and private pay residents living each day in 16 participating nursing homes in urban, metro, and rural communities within 80 miles of a major Midwestern city in Missouri. Performance feedback reports were provided to each facility summarizing their all-cause hospitalizations and potentially avoidable hospitalizations as well as a support team of social work, health information technology, and INTERACT/Quality Improvement Coaches.

Results: The MOQI achieved a 30% reduction in all-cause hospitalizations and statistically significant reductions in 4 single quarters of the 2.75 years of full implementation of the intervention for long-stay nursing home residents.

Implications: As the population of older people explodes in upcoming decades, it is critical to find good solutions to deal with increasing costs of health care. APRNs, working with multidisciplinary support teams, are a good solution to improving care and reducing costs if all nursing home residents have access to APRNs nationwide.

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents

Phase 2

(2016 - 2020)

- 6 sites across the country
- Testing a new Medicare Part B payment model layered on the Phase 1 clinical models
- Provides resources to the facility and providers to deliver acute care in place
- Focus on 6 qualifying conditions

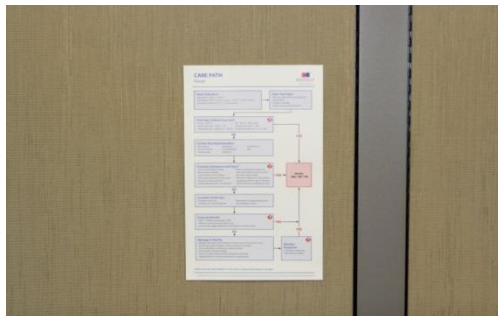
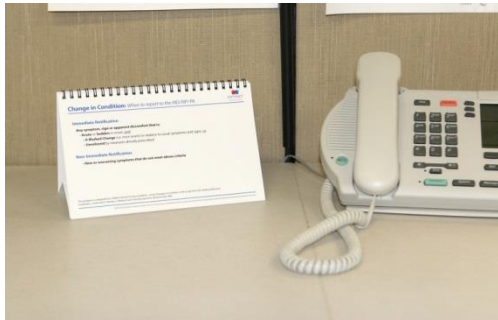
Six Qualifying Conditions

- Pneumonia
- Urinary Tract Infection (UTI)
- Congestive Heart Failure (CHF)
- Dehydration
- Skin ulcers, cellulitis
- COPD, asthma

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

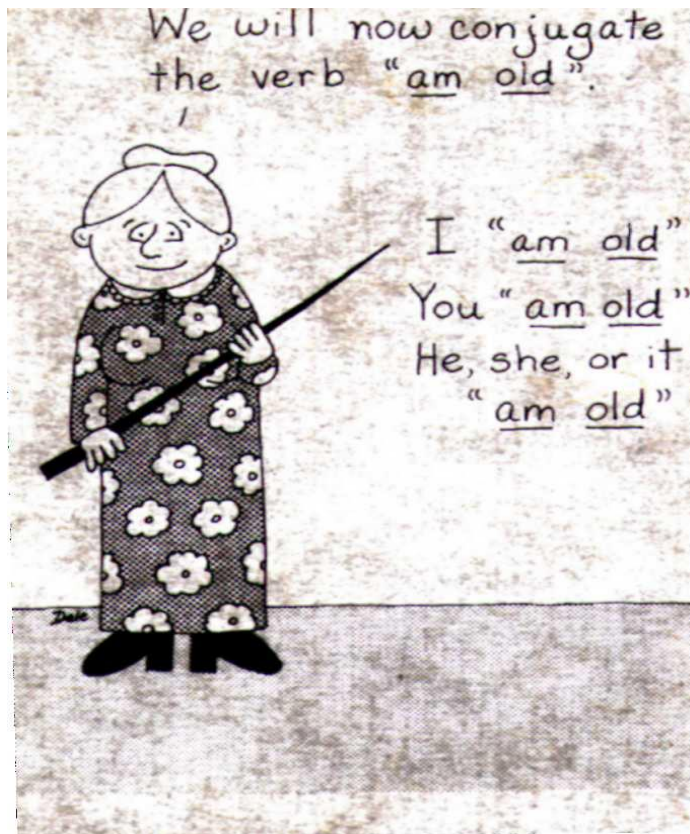
INTERACT and HIT

INTERACT Tools Must be
Visible and Accessible in Everyday Care



Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Person-Centered Care and Quality of Life

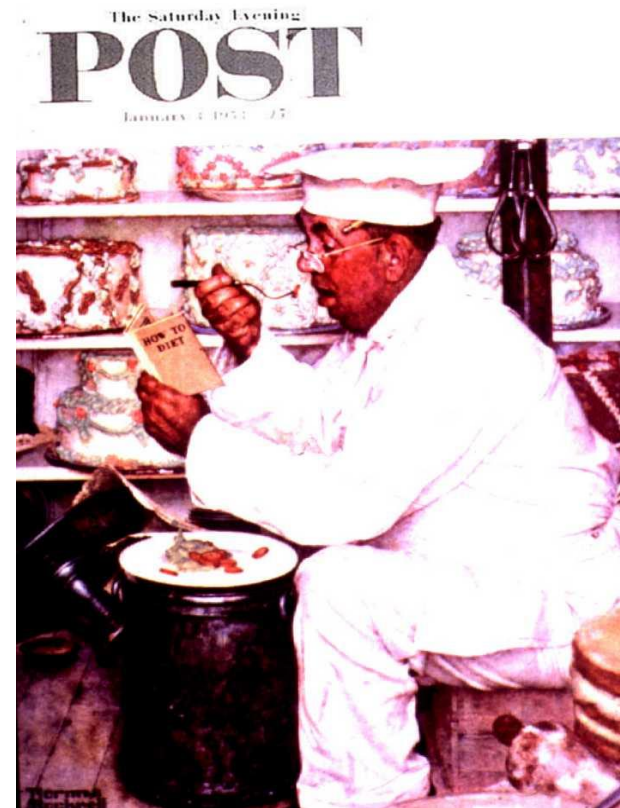
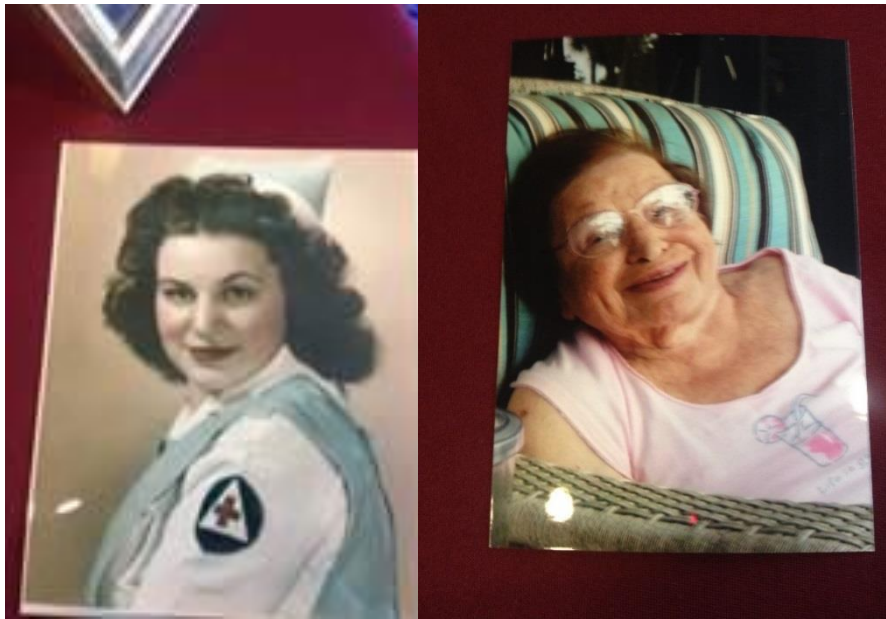


We is all old :

(HAPPY BIRTHDAY)

Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Person-Centered Care and Quality of Life





Reducing Unnecessary Hospitalizations and ED visits in the Geriatric Population

Questions?
Comments?
Suggestions?

<http://interact.fau.edu>