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You may also phone in a question to (210) 264-7000. Transfer Trauma: A Trip to the ER Can Put an Older Adult at Risk

Mukaila Raji, MD, MSC Professor and Director, Internal Medicine-Geriatrics Program Director, UTMB Geriatric Fellowship Department of Internal Medicine Division of Geriatric Medicine University of Texas Medical Branch, Galveston

Consequences of frequent emergency room visits or re-hospitalizations

- Infections flu, C Diff, MRSA, bed bugs, lice
- Bed sores, falls & fractures
- High risk of drug toxicity
- Delirium, especially in dementia patients
- Complications from procedures, e.g., catheter, IVs



Consequences of frequent emergency room visits or re-hospitalizations

- Medicare cost of readmission in 2004:
 \$17.4 billion
- Stress to patients, family, nursing home
- Property Loss: dentures, glasses, hearing aids



How common are recurrent emergency room visits or re-hospitalizations in the elderly?

What are the most common medical diagnoses for recurrent readmissions by elderly patients on Medicare?

Rehospitalizations among Medicare patients discharged from hospital

20% rehospitalized within 30 days; 34% in 90 days

Top Medical Diagnoses for Readmission

- » Congestive Heart Failure
- » Pneumonia
- » COPD
- » Psychosis
- » GI problems
- » Medications Poisoning



N Engl J Med. 2009;360:1418-28

Medication use leading to Emergency Department visits for drug poisoning in older adults

Among seniors with multiple emergency department visits to US hospitals (about 180,000 visits in 2004-2005) for drug toxicity, *3 medications account for 1/3 of these visits.*

What are they?



Budnitz et al. Ann Intern Med 2007

Medications causing a third of ED visits for drug toxicity

• Warfarin

• Insulin

Digoxin



Budnitz et al. Ann Intern Med 2007

Acute hospitalization & emergency room visits among Medicare nursing home residents

- Commonest diagnoses for
 - » UTI
 - » Pneumonia
 - » CHF exacerbation



Hutt et al. J Am Geriatr Soc. 2002;50:223-9.

Acute hospitalization & emergency room visits among Medicare nursing home residents

- Do not resuscitate orders reduced odds of hospitalization for pneumonia
- Weekend and evening/night shifts increased odds of hospitalization for UTI



Barriers to treating acutely ill residents in the nursing home

- Difficulty in obtaining antibiotics quickly
- Poor documentation of resident's wishes for hospitalization
- Inadequate staffing & high dementia prevalence

Leads to defensive practices that erode MDs & NPs autonomy & patient's quality of care*

> Dosa. J Am Med Dir Assoc. 2005;6:327-33; Katz & Karuza, Geriatric Review Syllabus GRS6*

Barriers to treating acutely ill residents in the nursing home

- Limited access to biotechnology and tests*
- Atypical presentation of illnesses*
- Family, ethical, legal, and regulatory concerns*

Leads to defensive practices that erode MDs & NPs autonomy & patient's quality of care*

Dosa. J Am Med Dir Assoc. 2005;6:327-33; Katz & Karuza, Geriatric Review Syllabus GRS6*

What can we do to reduce frequent ER visits & hospitalizations?

Evidence from published research

- New Models of Care to Improve Care Transitions
- Role of mid-level clinicians
- Empower patients, families & caregivers
- Systems change in
 - » Nursing home
 - » Hospitals
 - » ER

Remove barriers to care in long term settings

Practice model for Nurse Practitioners (NPs) working in long-term care (LTC) homes

- 2 full-time equivalent NPs provided primary care to 22 LTC homes serving ~ 2900 residents*
- Prevented hospital admission by 39-43%
- Improved staff confidence and job satisfaction
- Saved money 'cost neutral & cost saving'**
- Developed new skills in the LTC workforce**
- Enhanced quality of care**

J Adv Nurs. 2008;62:562-71.*

BMC Health Serv Res. 2008 Dec 22;8:269.**

A nurse case manager and a community health worker team reduces emergency department visits and hospitalizations Arch Intern Med. 2009;169:1788-94.

Used evidence-based clinical algorithms with feedback to primary care providers (e.g., physicians, NPs or physician assistants)

 Patient self-management education



A nurse case manager and a community health worker team reduces emergency department visits and hospitalizations Arch Intern Med. 2009;169:1788-94.

Used evidence-based clinical algorithms with feedback to primary care providers (e.g., physicians, NPs or physician assistants)

Home-based assessment & education



A nurse case manager and a community health worker team reduces emergency department visits and hospitalizations Arch Intern Med. 2009;169:1788-94.

Used evidence-based clinical algorithms with feedback to primary care providers (e.g., physicians, NPs or physician assistants)

- Self-management
 - » depression
 - » socioeconomic problems
 - » caregiver concerns



Telemedicine care through videoconferencing reduces ER visits

- Comparable to hospital referral for face-to-face medicine
- Faster
 - » diagnosis
 - » health examination
 - » treatment



Ferrer-Roca et al. Telemed J E Health. 2010; 16: 233-43.

Telemedicine care through videoconferencing reduces ER visits

- Improved quality of life of retired people who require medical attention without traveling
- Teleconsultations can be managed by MDs, PAs or NPs



Structured telephone support & telemonitoring for CHF patients

- In patients with CHF, reduces risk of
 - » all-cause mortality
 - » CHF-related hospitalizations
- Improves quality of life
- Reduces costs
- Increases evidence-based prescribing

Cochrane Database Syst Rev. 2010 Aug 4;8:CD007228

What we do at UTMB to reduce CHF readmissions to ACE Unit

On Days 3 & 7 post-discharge, Medical & PA Students call all CHF patients discharged from the Acute Care for the Elders Unit to ask questions & solve problems:

- Do you have a follow-up appointment with your doctor or nurse this week?
- Do you weigh yourself daily?
- Do you have your diuretics (fluid pills)?
- Call your doctor or nurse if you develop signs of worsening heart failure: e.g., 2lb weight gain/24hrs

Reducing Recurrent ER Transfer from Nursing Homes

What can we do?



Morningside Ministries

Create systems to remove barriers to treating acutely ill residents in the nursing home

- Develop system to obtain antibiotics quickly
- System to improve & transmit documentation of resident's wishes for hospitalization & CPR
- Flexible staffing for peak hours—not easy!!
- Invest in biotechnology and point of care tests*

Dosa. J Am Med Dir Assoc. 2005; 6:327-33 Katz & Karuza, Geriatric Review Syllabus GRS6*

Create systems to remove barriers to treating acutely ill residents in the nursing home

- Continuous staff training to recognize atypical presentation of illnesses in the elderly*
- Form strong & functional Family Council
- Hire NP or PA: cost effective, reduce ER transfer

Dosa. J Am Med Dir Assoc. 2005; 6:327-33 Katz & Karuza, Geriatric Review Syllabus GRS6*

Develop system to case manage the top causes of ER visits from Nursing Home

- Congestive Heart Failure
- COPD/Asthma flare up
- Delirium & psychosis
- Pneumonia & Complicated UTI
- PEG tube complications

Early recognition of the above & early intervention is *key* to prevent these conditions from developing into ER transfer

Use of feeding tubes in patients with advanced dementia

- Does not improve survival
- Does not prevent aspiration pneumonia
- Does not heal or prevent decubitus ulcers
- Does not improve functional status

And yet one-third of nursing home residents with advanced dementia have a feeding tube inserted!

JAMA. 2010;303:544-550; Cochrane Database 2009 ;15:CD007209

JAMA. 2003;290:73-80; *JAMA.* 1999;282:1365-1370

Feeding Tube & Recurrent ER Visits

"two-thirds of persons with advanced cognitive impairment have their feeding tube inserted during an acute care hospitalization, usually for pneumonia, dehydration, and dysphagia" J Am Med Dir Assoc. 2009;10(4):264-270.



Feeding Tube & Recurrent ER Visits

"most nursing home residents would 'rather die' than live in a state of advanced dementia with a feeding tube"

J Gen Intern Med. 1997;12(6):364-371



What happens after Nursing Home residents with advanced dementia receive feeding tubes?

- 64% died in less than 12 months after tube insertion
- About 20% required a tube replacement or repositioning within 4 months of insertion
- Recurrent hospitalizations: over 12 months, dementia patients with PEG tubes spent 9 days in hospital for feeding tube issues

J Am Med Dir Assoc. 2009;10(4):264-270

Advance care planning reduces unnecessary tube feeding insertions

Only 5.8% of hospitalized nursing home residents with advanced cognitive impairment had an order to forgo artificial hydration and nutrition

Potential Solutions

- Educate families about pros & cons of PEG tube
- Obtain written advance directives regarding
 - » Do not resuscitate orders
 - » Orders to forgo artificial hydration & nutrition
 - » Hopsitalizations when terminally sick

JAMA. 2010;303(6):544-550.

Improving transitions of seniors between nursing homes and hospitals

- Enhanced transmission of advance directives
- Improved communication of medication lists
- Medication reconciliation on return to nursing home after discharge from hospitalization

LaMantia et al. J Am Geriatr Soc. 2010 Apr;58(4):777-82

Improving transitions of seniors between nursing homes and hospitals

- Develop patient transfer sheet for nursing home patients transferred to emergency department
- Use of prospective order form for life-sustaining treatment and patient's preference

LaMantia et al. J Am Geriatr Soc. 2010 Apr;58(4):777-82

Have protocols for early recognition & Rx of CHF, COPD, UTI & Pneumonia

- Pneumonia: complete your antibiotic cycle
 - » Pneumovax and flu vac.; staff must also get flu shots
- COPD/Asthma exacerbations
 - » Recognize early signs of flare up: sputum color and quantity, subjective increase in cough and sob
 - » Having in-home antibiotics & steroids

Have protocols for early recognition & Rx of CHF, COPD, UTI & Pneumonia

- CHF: monitor changes in weight and swelling
 - » adhere to CHF drugs (lasix, ACE inhibitors, etc.),
 - » see clinician within 7 days of hospital discharge
- UTI: minimize the use of bladder catheter

Program of All-Inclusive Care for the Elderly (PACE)

- Comprehensive, community-based geriatric care that enrolls frail older adults who meet states' criteria for nursing home care
- Uses interdisciplinary teams to assess participants & deliver care in appropriate settings
- Receives capitated payment from Medicare & Medicaid

Wieland et al. J Am Geriatr Soc. 2000 48:1373-80.

Program of All-Inclusive Care for the Elderly (PACE)

Goals: Optimize health, function & quality of life

- through the delivery of effective care
 - » primary
 - » preventive
 - » restorative
 - » supportive
 - » palliative



through avoiding inappropriate & expensive hospital
 & nursing home utilization

Wieland et al. J Am Geriatr Soc. 2000 48:1373-80.

Program of All-Inclusive Care for the Elderly (PACE)

- Day center attendance, therapy encounters & personal home care
- Sites providing more day center care & more therapy had significantly fewer hospital admissions
- Enhanced care coordination leads to
 - » fewer hospitalizations
 - » better outcomes
 - » cost savings



J Gerontol A Biol Sci Med Sci. 2008;63:731-8.

Empower your patients

What all seniors must know



Normal Aging versus Diseases

Dangerous Drug Combinations



These symptoms <u>are not</u> normal part of aging; so see your MDs, PA or NP asap!

Dizziness Drowsiness Depression Diarrhea Nausea & Vertigo Always short of breath Easy fatigue Blood in urine or stool Unintentional weight loss

Loss of appetite New onset insomnia Incontinence New onset constipation Always waking up tired Falls & Wobbliness Serious forgetfulness: e.g., forgets spouse name, wallet in freezer

Drug-drug combinations that can send you to the emergency room

- <u>Cotrimoxazole</u> (in bactrim, a common antibiotic for bladder, skin & lung infections) with <u>glyburide</u> – hypoglycemia, coma
- <u>Cotrimoxazole</u> with <u>coumadin</u> severe bleeding, shock
- <u>Cotrimoxazole</u> with <u>Angiotensin Inhibitors</u> (e.g., enalapril, lisinopril, losartan, etc.) – high blood potassium, irregular heartbeat, cardiac arrhythmia

Arch Intern Med. 2010;170:1045-9 JAMA 2003;289:1652-8 Arch Intern Med. 2010 ;170:617-21 Empowering the seniors: Always have a list of questions to ask MDs, NPs, or PAs

For example, patients should always ask their doctors, NPs and PAs (and pharmacists, too):

Do I still need this medication?

Ask your doctor if you are correctly taking your coumadin, digoxin or insulin – these drugs cause 33% of all ER visits for drug poisoning! Empowering the seniors: Always have a list of questions to ask MDs, NPs, or PAs

For example, patients should always ask their doctors, NPs and PAs (and pharmacists, too):

Is this medication interacting with other medications I'm using?

Ask your doctor if you are correctly taking your coumadin, digoxin or insulin – these drugs cause 33% of all ER visits for drug poisoning! Empowering the seniors: Always have a list of questions to ask MDs, NPs, or PAs

For example, patients should always ask their doctors, NPs and PAs (and pharmacists, too):

Can my illness be due to or worsened by these medications?

Ask your doctor if you are correctly taking your coumadin, digoxin or insulin – these drugs cause 33% of all ER visits for drug poisoning!

Thank you



Mukaila Raji, MD, MSC Professor & Division Chief, Director, Geriatric Fellowship, Department of Internal Medicine

UTMB Galveston



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