



**Weill Cornell Medical College**

HUNTER NEW ENGLAND  
NSW HEALTH

# *Understanding Innovative Geriatric ED Interventions*

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## Background

### *Hospital Based Emergency Care: At the Breaking Point*

- overburdened, under-funded, and highly fragmented
- focus on pediatric challenges but little mention of geriatrics



Institute of Medicine,  
2006

### Older adults different than younger adults in ED

- Are more likely to arrive by ambulance
- Require more time and resources
- Are more like to be admitted including intensive care
- Have a high rate of adverse outcomes after discharge

-Aminzadeh F and Dalziel WB, *Ann Emerg Med*, 2002.



## *Background*

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- EDs designed for acutely ill and injured patients, not complex patients with chronic disease
- No consideration for unique needs of elderly
- Minimal expertise, equipment and policies

-Wilber S et al, *Acad Emerg Med*, 2006

*There has been no cataloguing of efforts that address these challenges*

## *Specific Aims*

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- To identify and describe innovative interventions to serve older people in US EDs in three specific domains:
  1. Staff Roles and Education
  2. Clinical Care
  3. Operational design



## *Difficult Issue to Study*

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- What constitutes an “innovation”?
- How are relevant programs identified?
  - Initiatives not limited to academic centers
  - Not easily identifiable as discrete programs
  - Local, staff dependent, transient
  - Not broadly described in the literature
- What is the unit of analysis?
  - Individual, ED, hospital, health system



## *Methods I: Expert Panel*

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- 5 emergency physicians, 2 geriatricians, 2 social workers, 3 nurses
- Reviewed aims and methodology:
  - Defined innovation:  
*“creative, interesting or thoughtful programs that differed from usual ED care for older people”*
  - Identified initial core interview group for snowball sampling



## *Methods II: Snowball Sampling*

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- Core group emailed and invited to participate or nominate subjects
- Semi-structured interviews (n=49)
  - All conducted by CH
  - Audio taped, fully transcribed, and reviewed
  - Narrative data, content analyzed into themes using **NVIVO**
  - Average Interview length: 35 mins



## *Results: Characteristics of Interviewees and Hospitals*

### Characteristics of Interviewees (n=49)

Characteristic	No (%)
Staff role	
Emergency Physician	30 (61)
Other physician	6 (12)
Registered nurse	9 (18)
Other	4 (8)
Male	31 (63)
Core group sample	29 (59)

### Characteristics of Hospitals (n=30)

Characteristic	
ED visits, mean (range)	67,285 (14,500-175,000)
Hospital beds, mean (range)	626 (74-1,228)
Not-for-profit, n (%)	27 (90)
Urban, n (%)	27 (90)
Emergency Residency Program, n (%)	23 (77)



## *Geriatric Innovation Domain 1: Staff Roles*

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### ***Medical***

- Director of Geriatric EM
- Dual qualified EP:  
Geriatrics/Palliative

### ***Nursing***

- Case Coordinator
- Geriatric NP
- Follow-up NP

### ***Allied Health***

- Social Worker
- Pharmacist
- PT and OT

### ***Other***

- Geriatric technicians
- Volunteers



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## Nurse Practitioners

- Geriatric NP working in collaboration with MD
  - Geriatric syndromes
  - Discharge plan
  - Communication
  - Education



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- **Volunteers**

## **Volunteers**

- Hospital Elder Life Program elements



## *Geriatric Innovation Domain 1: Staff Education*

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### ***Medical***

- Geriatric Emergency Medicine Fellowship
- Simulation training
- On-line modules
- Reading curriculum
- SAEM resources
- EPEC-EM (palliative)

### ***Nursing***

- Geriatric Emergency Nursing Course
- NICHE GRN course
- CNA course
- Falls program
- Medication program
- Dementia simulation
- “Walk a mile in my shoes”



## *Geriatric Innovation Domain 2: Staff Education*

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### *Medical*

- Geriatric Emergency Medicine Fellowship
- **Simulation training**
- On-line modules
- Reading curriculum
- SAEM resources

### *Nursing*

- Geriatric Emergency Nursing Course
- NICHE GRN course
- CNA courses
- Falls programs
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## **Simulation training**

- Simulation competition day: 4 residency progs
- Volunteer patients
- Sepsis, end of life, falls, cognition, trauma



## *Geriatric Innovation Domain 2: Staff Education*

### *Medical*

- Geriatric Emergency Medicine Fellowship
- Simulation training
- On-line modules
- Reading curriculum
- SAEM resources

### *Nursing*

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- NICHE GRN course
- AIN course
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- Dementia simulation course
- “Walk a mile in my shoes”

## **NICHE GRN Scholars**

(Nurses Improving Care for Health System Elders Geriatric Resource Nurse Scholars)

- Develop geriatric champions on clinical units
- State and national support



 HARTFORD INSTITUTE FOR GERIATRIC NURSING



# *Geriatric Innovation Domain 2: Clinical*

## ***ED care***

- Abdominal pain
- Cognition, delirium and depression
- Functional assessment
- Fractured neck of femur and trauma care
- Pain and sedation
- Sepsis and pneumonia
- Overcrowding
- Poly-pharmacy
- Triage
- Disaster planning

## ***Screening***

- Cognition
- Falls
- Pre-existing conditions
- Depression
- At risk elders

## ***Palliative care***

- Consult service
- Screening
- Family conference
- Family present in resuscitation

## ***Consult services***

- Geriatrics
- Palliative care
- Ethics

## ***Outpatient services***

- Geriatric
- Falls
- No primary care
- Urgent review

## ***Inpatient Units***

- Acute care of the elderly
- Geriatric trauma services
- Psycho-geriatric services

## ***Transition services***

- Call centers
- Nursing and allied health services
- Hospital at Home
- Lifeline

## ***Nursing Home Transfer***

- Regular meetings with nursing homes
- ED Nursing home transfer forms
- “Fanny packs”

## *Geriatric Innovation Domain 2: Clinical*

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- ED care
- Screening
- Palliative care
- Consult services
- Outpatient services
- Inpatient Units
- Transition services
- Nursing Home Transfer

## Geriatric Innovation Domain 2: Clinical

### ED care

- Cognition, delirium and depression
- Functional assessment
- Poly-pharmacy
- Abdominal pain
- Fractured neck of femur and trauma care
- Sepsis and pneumonia
- Pain and sedation
- Crowding
- Triage
- Disaster planning

### Functional Assessment

#### Personalized elder care form

HEALTHEAST CARE SYSTEM  
Family Information About Our Elder Patients for the Hospital Team

*Please complete the following questions. This will help caregivers provide the best care possible for your loved one's needs.*

1. Patient's name: \_\_\_\_\_
2. Prefers to be called \_\_\_\_\_
3. Loved one's job/family role as a younger person:  
\_\_\_\_\_
4. Familiar/favorite topics:  
\_\_\_\_\_
5. Tell us about your family:  
\_\_\_\_\_
6. Key family contacts: **NAME**    **Relationship**    **PHONE NUMBER(S)**  
PRIMARY: 1) \_\_\_\_\_  
OTHERS: 2) \_\_\_\_\_  
3) \_\_\_\_\_  
4) \_\_\_\_\_

*Please star (\*) individuals above who are willing to be called to come in and sit with/reassure the patient.*

7. Your loved one's favorite activities/hobbies: (i.e., cooking, reading, etc.)  
\_\_\_\_\_
8. Favorite Foods: \_\_\_\_\_
9. Favorite Music: \_\_\_\_\_
10. Can the patient express her/his own needs or wants: (pain, thirst, toileting)  
\_\_\_Yes \_\_\_No
11. The patient expresses pain by: (agitation, facial expressions, specific words) \_\_\_\_\_
12. At home, what helps decrease pain or agitation for your loved one?  
\_\_\_\_\_

## *Geriatric Innovation Domain 2: Clinical*

### ***Palliative care***

- Consult service
- **Screening**
- Family conference
- Family present in resus
- Electronic advance directive

### **Palliative care Screening**

- Laminated card with criteria for referral

#### **REFER IF**

Patient/family members need or have:

- Guidance with pain and symptom management
- Advanced Care Planning/Advance Directives
- Guidance with decision making
- Bereavement issues
- Frequent hospitalization for advanced illness
- Hospice referral
- Spiritual/emotional needs

**Pain and Palliative Care Consultation Service**

**Fellow Beeper: 16702**

**Weekend and evening hours: Palliative Care Consult  
voicemail (for non-urgent consults) – 212-844-1361**

## *Geriatric Innovation Domain 3: Operational design*

### ***Physical***

- Environment
- Observation Units
- Equipment
- Beds
- Discharge Letters

### ***Information Technology***



## *Geriatric Innovation Domain 3: Operational design*

### ***Environment***

- Colors and music
- Flooring and lighting
- Less noise
- Single rooms
- Bigger rooms
- Learn from pediatric EDs on how to be age specific
- Don't put older people in corridors



# Geriatric Innovation Domain 3: Operational design

## Equipment

- Reclining chairs
- Folding chairs
- Walking frames
- Color-coded uniforms
- Clocks calendars for orientation
- White boards for communication
- Fall monitors



## Reclining chairs

Reclining Chairs Reduce Pain from Gurneys in Older Emergency Department Patients: A Randomized Controlled Trial

Scott T. Wilber, MD, Barbara Burger, RN, Lowell W. Gerson, PhD, Michelle Blanda, MD

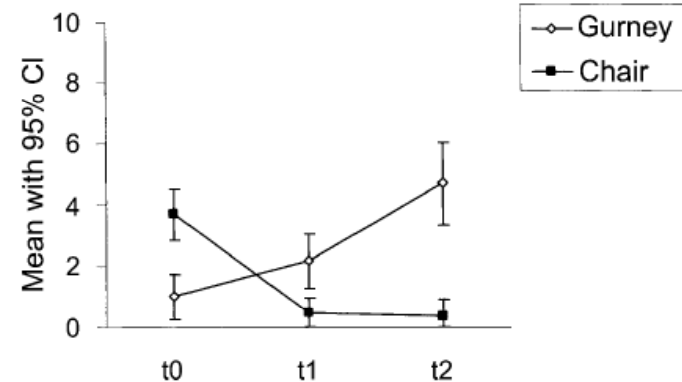


Figure 2. Mean pain scores by group.



## *Geriatric Innovation Domain 3: Operational design*

### **Information Technology**

- EMR across sites
- Automated email to primary care
- Nursing assessment
- Clinical pathways and order sets
- Web referral system
- Sepsis Surveillance
- Alerts- back boards and elder experience



## *Hospital A*

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Large rural community: 800 bed tertiary referral, not-for-profit, religious  
ED: 100,000 visits, 24% adults over 65  
admits 22% adults and 46% over 65

- Whole hospital program
- ED nursing home transfers
- High risk elder screen
- ED social worker makes home visits (5FTE)
- GRN program includes S/W and pharmacy
- Fractured neck of femur (600 cases/year)
- Delirium order sets for everyone over 70
- Personalized elder care form
- POLST, BOOST, volunteers



## *Hospital B*

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Outer metro community: 450 beds, non-profit religious organization  
ED: 90,000 visits

- Whole hospital program
- Geriatric ED opened Nov 2008: No new funded positions, \$150,000
- 8 beds: Flooring, lighting, rails, thicker mattresses, pillows, blanket warmers, food for patients and caregivers, clocks, limited traffic
- Geriatric NP and geriatric social worker team
- GENE and GRN courses
- EMR geriatric icon, pharmacy review with 5 meds
- Hospital house call program visits ED repeat visits



## *Reasons for Geriatric ED Innovation*

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- Patient level
  - ED visit: a “Red Flag”
    - High-functioning patients at risk of losing independence
    - Patients who only access health care system when in crisis
  - Basic reassurance as important in geriatrics as pediatrics:
    - Involving family, addressing fears, informed waiting
- Institutional level
  - Some hospitals identified “gero-friendliness” as marketing strategy
  - Geriatric ED patients make compliance with JCAHO, CMS regulations challenging



## *Key Drivers for Geriatric ED Innovation*

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- Hospital leadership
  - Clear vision of purpose, hospital-wide view
  - Community hospitals more commonly innovative than academic centers
- Research and Education Funding
  - Private foundations have focused on supporting geriatrics
    - Geriatric education for specialist residents
    - Jahnigen Career Development awards

***Research often not successfully translated sustainably into clinical care***

# *Challenges to Geriatric ED Innovation*

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## ***ED difficult environment for innovation***

- 24 hour, 7 day-a-week service
- Crowding
- Limited interdisciplinary collaboration
- Few opportunities for education and implementation
- Information technology
  - Multiple fragmented systems
  - Inadequate technical support

## ***Geriatric patients difficult and expensive for hospitals to manage***

- Mixed institutional message -- want to promote excellent care, but don't want to be too attractive to geriatric patients



## *Conclusion*

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- Broad spectrum of geriatric emergency interventions exists in the US
- Limited formal evaluation
- Crowding, transitions are major clinical issues
- Strong relationships with outside health care providers improves geriatric care
- Lessons to be learned from pediatric EDs
- ED visit: a “Red Flag” and opportunity to intervene



## *Policy and Research Implications: ED*

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- Identify key geriatric conditions and develop evidence-based emergency management guidelines
- Increase inter-disciplinary collaboration required in ED, using geriatrics as model
  - Develop new staff roles and responsibilities
  - Increase opportunities for integrated education
- Focus on improving transitions to community



## *Policy and Research Implications: Health Reform*

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### ***US and Australian Health care reform offers opportunity to optimize EDs for geriatric patients***

- Address crowding
- Improve access and accountability of PCP
- Eliminate financial dis-incentives
- Develop quality indicators for geriatric emergency care
- Implement future demonstration models for geriatric emergency medicine

### ***Role of ED changing with increased management of complex, chronically ill patients***



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