Geriatric Emergency Nursing, Back to the Future

A James Ciaccio, M.D., FACEP
Director of Geriatric Emergency Medicine
Assistant Professor, Emergency Medicine
Upstate Medical University
Outline

- Introduction
- Demographics
- Philosophy
- Selected topics
- Geriatric Emergency Nursing
- Discussion
Why Emergency Nursing?

- Shift and accelerate
- Assessment skills
- Interpersonal skills
- Stamina
- Coping skills
- Assertive
- Ability to maintain calm amidst chaos
- Good sense of humor
- Ability to think fast and on your feet
adrenaline junkie

Some one who seek out and craves thrilling adventures and/or activities to get an adrenaline rush.

Carey Hart flipped his bike backward because he is such the adrenaline junkie.

by Ken Brenan August 26, 2005
Adult diapers in a thong! Sexy, right?!

Angel of Death, take me now.
Geriatric Nurses

do it better

It's a beautiful thing when a career and a passion come together.

"They may forget your name, but they will never forget how you made them feel."

- Maya Angelou

GERIATRIC NURSE

It never gets old.

The Sarcasm Shop
A population that does not take care of the elderly and of children and the young has no future, because it abuses both its memory and its promise.

~Pope Francis
Demographics
An Aging Nation: The Older Population in the United States *Population Estimates and Projections*

Current Population Reports
Issued May 2014

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Number of Persons 65+, 2000–2060 (Number in millions)
Aging Nation

- 2012: 43.1 million
- 2050: 88 million

Career middle: 2032:
- 75 million
In percentages

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Onondaga</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014:</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>2030:</td>
<td>20%</td>
<td>(???)</td>
</tr>
</tbody>
</table>
Demographics of Our Aging Population

Differences between future >65 population and past:

- Better educated
- Less poverty
- Fewer children
- More ethnic/racial diversity
Resource Utilization

- 43% of admissions
- 48% of ICU admissions
- 20% longer LOS
- 50% more lab/radiology use
- 400% more likely to need Social Service Intervention

ACEP 2008 “The Future of Geriatric Care in our Nation’s Emergency Departments: Impact and Implications” (from CMS Data)
Contributing Factors

- Shrinking Primary Care
- Gerontologist Deficit
- Lack of financial Incentives
- Complexity of Care
- ED most Appropriate??
Following ED visit > risk for:
- medical complications
- functional decline
- Poorer quality of life

More

- 27% of seniors discharged from ED experience:
  - ED Revisit
  - Hospitalization
  - Death

Within 3 months!!!

Hospitals Are Hazardous

CAUTION!
HOSPITALS MAY BE HAZARDOUS TO YOUR HEALTH

"Get undressed and put on this hospital gown."

BIOHAZ
40,000 Lethal ERRORS Occur in Hospitals Every Day:

TIPS to AVOID Becoming a Statistic
Hazards

- 1 in 7 Medicare Recipients suffer adverse events
- $4.4 billion in costs
- 31% medication related
- Catheter Associated Infections
- VTE
- Hospital Acquired Pnemonia

Levinson DR. Adverse events in hospitals: national incidence among Medicare beneficiaries. Department of Health and Human Services, Office of Inspector General,
RISKS FOR HAZARDS OF HOSPITALIZATION

Polypharmacy

Sensory Deprivation

Unfamiliar Environment

Restraints

Deconditioning

Ulcers

Malnutrition/N.P.O.

Isolation

Immobilty

Falls

Immobility

Incontinence

Depression

Infection

Insomnia
“Profiles of Older Medicare Decedents”

- 5% of Medicare enrollees die each year
- 25% of Medicare costs occur in the last year of life!
- Understanding Trajectories of dying can improve end of life care

*Lunney, PhD., RN, et al.*
*JAGS 50:1108–1112, 2002*
Proposed Trajectories of Dying

- **Sudden Death**
  - High Function
  - Time
  - Death

- **Terminal Illness**
  - High Function
  - Time
  - Death

- **Organ Failure**
  - High Function
  - Time
  - Death

- **Frailty**
  - High Function
  - Time
  - Death
US vs. England

United States
- Militaristic terms
- Fight disease with weapons
- Not going to give in

England
- Life is a journey
- Dying as a normal process
- Supposed to be born, live and die
Issues

- Growth of the over 65
- Complex medical care
- Lack of support services
- Rising Health care costs
- Resource Utilization
GED Goals

- Inpatient Care only as necessary
- Outpatient Care for most
- Reduce Admission rate
- Improve Quality of Care
  - Geriatric EM principles
Sentinel Article

The Geriatric Emergency Department

Associate Professor, Depts of Emergency Medicine and Geriatrics
Mt Sinai Hospital
Numerous Boards, National Committees
Perspectives

- Population growth
- Care increasingly sought in ED’s
  - ↑ frequency
  - ↑ Diagnostic testing
  - ↑ LOS
ED: unique environment, specialized care for acutely ill and injured
Fast paced, noisy
Rapid diagnosis and disposition
Slippery, easy clean floors
Bright lights
Thin mattresses
Monitor noise
“...current system of ED care is not designed for older people
Basic Tenets

- Staff Education
- Hospital Care Integration
  - Pharmacist
  - Case Management
  - Social Work
Basic Tenets

- Physical Plant (Frosting)
  - Quiet, comfortable
  - Thicker mattresses
  - Natural UV spectrum Lighting
  - Low glare, non slip flooring
  - Pleasing colors
Tenets

- Patient Comfort Extras
  - Cheaters, warm blankets, hearing aides

- Palliative Care Introduction

- Outpatient Care Integration
  - PCP
  - Visiting Nurse’s
  - Home Health Aides
  - Transportation
Focus population

- Active functioning seniors!!!
  - Most to lose if they decompensate
  - Still have quality of life and low health care costs
Proposed Trajectories of Dying

**Sudden Death**

- High Function
- Low Time
- Death

**Terminal Illness**

- High Function
- Low Time
- Death

**Organ Failure**

- High Function
- Low Time
- Death

**Frailty**

- High Function
- Low Time
- Death
Organ Failure
Taken from Eric Dishman's congressional testimony, April 2010
Selected Topics

- Delirium
- Polypharmacy
- Elder Abuse
Delirium

- Acute decline in attention and cognition
- Common, life threatening
- Potentially preventable, reversible
- Result of an underlying condition
  - Often iatrogenic
Delirium

- Delirium: ACUTE Confusional State
- Dementia: CHRONIC Confusional State
Delirium Impact

- $6.9 billion in 2004
How?

- Complicates 20% of the 12.5 million admitted seniors
- Increases hospital costs by $2500 per patient
- Substantial outpatient costs
  - Institutionalization
  - Homecare

Phenomenally prevalent
Hospital Mortality Rate: 22–76%
One year mortality rate: 35–40%
Under diagnosed: clinical

Compared to MI

- STEMI 30 day Mortality: 2.5–10%¹
- Hospital Mortality Rate: 4.3–4.6%²
- One year mortality Rate: 8.4–18.7%³

2. The OPERA registry. Eur Heart J 200;
Etiology

- Acute Encephalopathy!
- Multifactorial
- Vulnerable patient combined with precipitating factors
Clinical Characteristics

- Acute onset
- Fluctuating course
- Inattention
- Disorganized
- Altered LOC

Clinical Characteristics

- Hyper and hypo active forms
- Hyper
  - Agitation and vigilance

Clinical Characteristics

- Hypo
  - Lethargy
  - Common In Seniors

Diagnosis

- Extremely difficult
  - Dementia vs. delirium or both
- Clinical
- Specificity: 98%; Sensitivity: 16–35%
- Bedside Tools
Treatment

- Underlying cause
- Non pharmacologic
  - Calm environment
  - Re-orientation (opposite of dementia)
  - Family support
  - Natural spectrum UV light
Pharmacologic

Have you had your Vitamin H today?

(H = Hugs)
Haloperidol

- B–52???

- Senior Dosing: **Start low, Go slow**

- 0.5 – 1.0 IM!!!
  - Extrapyramidal
  - QTc effects
  - Effectiveness demonstrated
Benzo’s??

- Paradoxical excitation
- Over sedation
- Respiratory depression
Delirium

- Not just Altered MS, rule out UTI or pneumonia
- Look for the myriad of causes.
- Big DDX
- Use the tool: CAM
The Prevalence and Documentation of Impaired Mental Status in Elderly Emergency Department Patients

*Hustey and Meldon*

Prospective, observational study

297 patients, >70

Screened with:
- Confusion Assessment Method (delirium)
- Orientation–Memory–Concentration exam for Cognitive Impairment
Findings

- 78 patients (26%) had MS impairment
  - 30 had delirium
  - 48 had cognitive impairment without delirium
- 17 had both
More findings

- Only 22 of 78 had any documentation of MS impairment
- 34 patients with ↓MS were DC’d
- 6/34 had plans documented
Findings

- 11/30 patients with delirium were DC’d!
- 16/23 with cognitive impairment who were DC’d had no prior history of impairment
Conclusions

- AMS is common in seniors
- ED docs miss it
- If we do find it we don’t do anything about it!!
Implications

- Should ED practice change?
- Screening?
- Acute or Chronic issue??
- Public Health v. Quality of Care?
- Is missing delirium a Medical Error?
  - Are we missing diagnoses?
- ? For Outpatient setting
Poly pharmacy

- 80 female SOB and unresponsive
- PMH: CAD, COPD, DM, HTN, CHF
- ICU, resp failure, bipap,
- Improved → Medical floor → TCU
- Persistent peripheral edema, moderate HTN and bradycardia
Hospital Meds

- Albuterol
- Allopurinol
- Brovana
- Aspirin
- Budesonide neb
- Diltiazem
- Vytorin (2 drug cholesterol combo)
- Advair
- Lasix

• Gabapentin (2400/day)
• Insulin
• Metozalone
• Metoprolol (200/day)
• Lovaza (cholesterol)
• Prilosec
• Telmisartan
• Heparin
Hospital Meds

- 3 hyperlipidemia drugs
- 2 diuretics
- Diltiazem (a rate control CCB) and b–blocker
  - Peripheral edema is a big side effect
- Excessive gaba dose (1400/day for her Cr Cl)
- 2 inhaled steroids
- 2 long acting B–adrenergics
11% of senior’s ED visits for adverse drug effects (ADE)
11% receive at least 1 inappropriate med
12% of admissions for ADE
Average elder: 4–8 meds
13% > 8
Each hospitalization adds one new med
Drug Therapy in ED & During Hospitalization

- Identify risk of poly-pharmacy
  - Zip Lock Bag size is evaluation tool!
    - Pint
    - Quart
    - Gallon
Be aware
Utilize the pharmacist!!
Anti-Cholinergic Burden
Anti Cholinergic Burden
- Mad as a Hatter
- Red as a Beet
- Dry as a Bone
- Hot as a hare
- Blind as a Bat

- Anticholinergic toxicity/overdose
Anti Cholinergic Burden

- Memory Impairment
- Cognitive decline
- Dry mouth
- Hallucinations
- Confusion
- Urinary retention
- Falls
Anti Cholinergic Burden

- Drugs with anticholinergic properties, cognitive decline, and dementia in an elderly general population: the 3-city study
- Arch Intern Med 2009; 169:1317
Methods

- 7000 participants
- Looked at
  - Cognitive performance
  - Dx of dementia
  - Anticholinergic use
  - Baseline, 2 and 4 years
Findings

- ↑ risk for cognitive decline
- ↑ risk of dementia
- Improvement with discontinuation
Other studies

- Confirmed
- Increased mortality
- 23% of seniors on drugs with clinically significant anticholinergic properties
Anticholinergic Scale

- Drugs assigned 1, 2 or 3 points
- Totaled
- Score of 3 or greater defines increased risk
Caveats

- Simplify prescribing
- Discontinue Unnecessary drugs
- Consider ADE for any new symptom
- Non Pharmacologic
- Reduce dosages
- Adhere to guidelines
  - BEERS
  - STOPP
Strong Anticholinergics and Incident Dementia

- *JAMA Intern Med.*
  doi:10.1001/jamainternmed.2014.7663
- Published online January 26, 2015.
Prospective, Cohort Observational Study
1995 – 2012
3400 participants, no dementia
Findings

!!10 year cumulative dose-response curve!!
Higher anticholinergic use associated with increased risk of dementia

- Non reversible!!
Elder Abuse

Definition:
- “actions or the omission of actions that result in harm or threatened harm to the health or welfare of the elderly”

- AMA
Elder Abuse

1. Physical
2. Sexual
3. Emotional
4. Financial
5. Neglect
6. Abandonment
7. Self-Neglect
Elder Abuse

- Risk Factors
  - Dependency
  - Social Isolation
  - Psych of abuser
    - Desire for drugs, money, possessions
Elder Abuse

- 300% higher risk of death
- $5.3 billion direct medical costs
- EM study:
  - In state elderly protective program; 66% of ED visits were for injuries
  - Only 9% were referred for services
Like and not like Child abuse

- Fail to consider in elderly
- Unrecognized
- Not often reported by senior; co-dependency relationship with perpetrator
- No mandatory reporting in NYS
- AP can only act with senior’s permission!!
Challenges

Challenges...

...are what makes life interesting; overcoming them is what makes life meaningful.

— Joshua A. Martin
Emergency department nurses’ perceptions and experiences of providing care for older people

Gallagher RN, Fry RN, at al. *Nursing and Health Sciences* (2014), 16, 449–453
Quality and safety of care of elders in ED is major concern for nurses. (Shanley, et al)

ED processes and acute care focus are challenges (Shanley et al)
Busy, noisy and crowded ED’s are stressful for seniors

- Co-morbidities are common
- ED evaluation time is increased
Barriers to Care

- Lack of time/staffing
- Focus on acute illness lowers priority of senior needs/fundamental nursing care:
  - Toileting
  - Repositioning
  - Oral care
Importance of family:
- 64% are accompanied by family
- Provide information
- Assist in decision making
Investigates

- Nurse’s experiences and expectations
- Nurse evaluation of family/carers’ time and investment
- Nurse’s perceptions
Methods

- Tertiary Care Hospital, Sydney, Australia
- Same ED model for seniors as other adults
- Extra discharge planning for seniors
Methods

- Four focus groups of ED nurses
- Semi-structured interviews and discussions
- Open ended questions on experiences and perceptions
Decreased job satisfaction as a result of inability to meet expectations of care

Heightened by fear that family does not feel that care meets expectations

Little prior data on subject
Findings

- Two Main Themes
  - Clash of expectations
    - Safety
    - Quality Nursing care
  - Family/Caregiver as safety net
Findings

“If you have multiple patients and they’re calling out to you, I think it’s frustrating not being able to give that care and that time to really know what they need”
Findings

- “...basic nursing care was long gone.”

- Inability to provide basic nursing care:
  - Hydration
  - Continence care
  - Comfort Care
“The family members and the patient get really frustrated if you can’t get them the pan or bottle... because you’re dealing with someone with chest pain or something else; it’s like, that’s sort of more critical. They forget about the medical side, the acute problems we’re dealing with.”
And the family’s so adamant that you’re not caring for them appropriately because you just couldn’t get there on time. And sometimes it’s hard…it’s just hard…it’s not how I was taught to care for patient’s either.”
Findings

- Reduced frustrations when nurse’s perceived that families understood and helped

- Family/carers not always aware of nurse’s expectations of their involvement. "It's your job"
Conclusions

- Nursing Standards of Care not always met
- Judge themselves harshly
- Judgement reinforced by family criticism
Discussion

- Mounting body of evidence
- Care of Seniors in ED needs urgent attention
- Interventions and policy recommendations have been published but not put into practice
- Family can significantly contribute to care
Need to develop an interdependence between nurse’s and caregivers to ensure patient safety.
Recommendations

- Communication
  - Monitoring
  - Reporting
  - Emotional support
  - Distraction
Recommendations

- Knowledge
  - Age related Nursing interventions
  - Geriatric Nursing Knowledge
    - Recognizing subtle signs of acute illness
  - Geriatric Assessment teams
  - Geriatric ED Units.....duh
Questions
Discussion??

- His points are invalid
- When will I get to speak
- I am right, I know everything
- I should change my view he could be right
- I am not interested