

STEVEN SPIELBERG PRESENTS

BACK TO THE FUTURE

[PG]

A ROBERT ZEMECKIS FILM



Geriatric Emergency Nursing, Back to the Future

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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



1.

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.

© G. Schecki.



**Geriatric
Nurses**
do it better

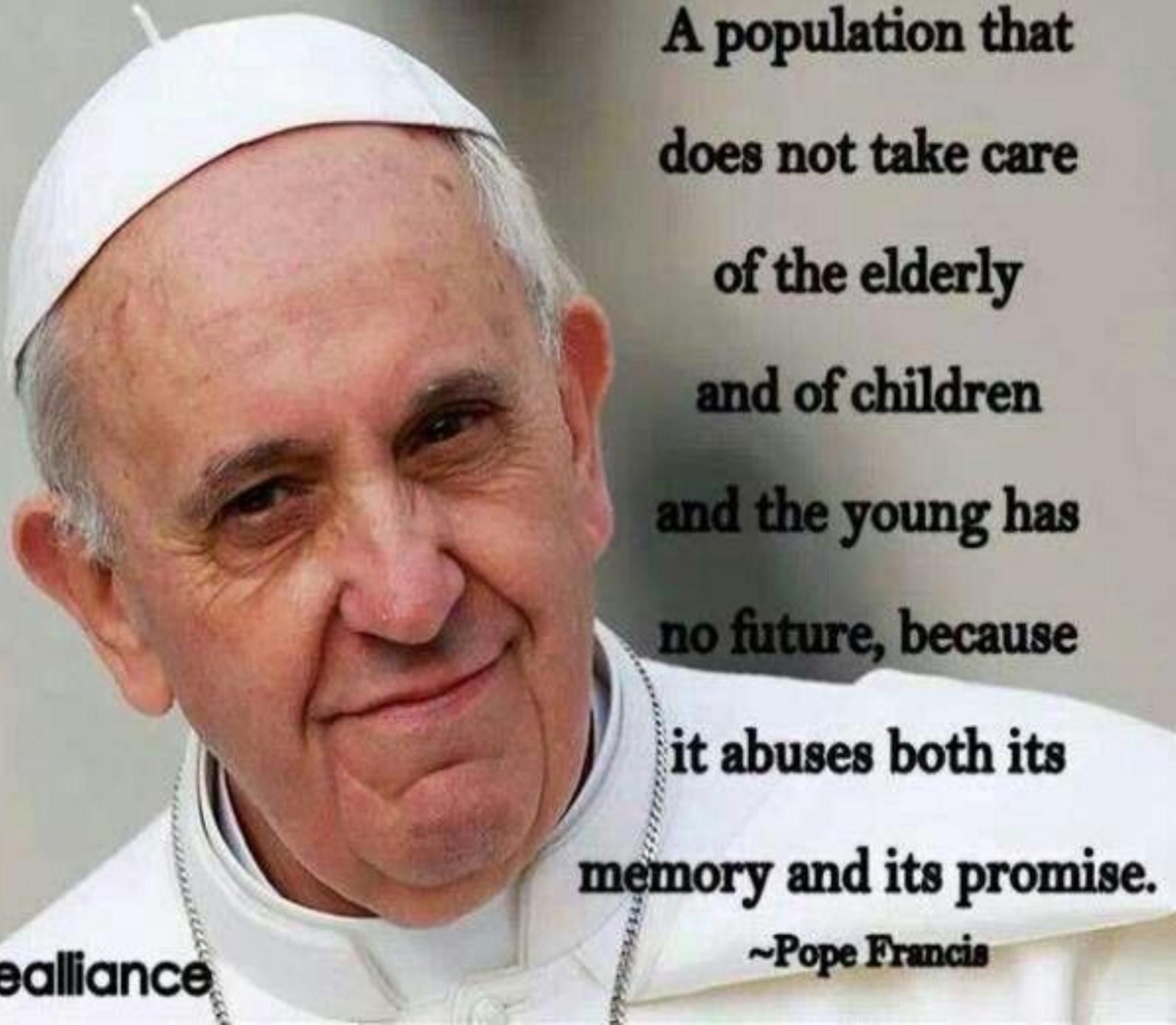


It's a
beautiful thing
when a career and
a passion come
together.

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

-Maya Angelou





**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



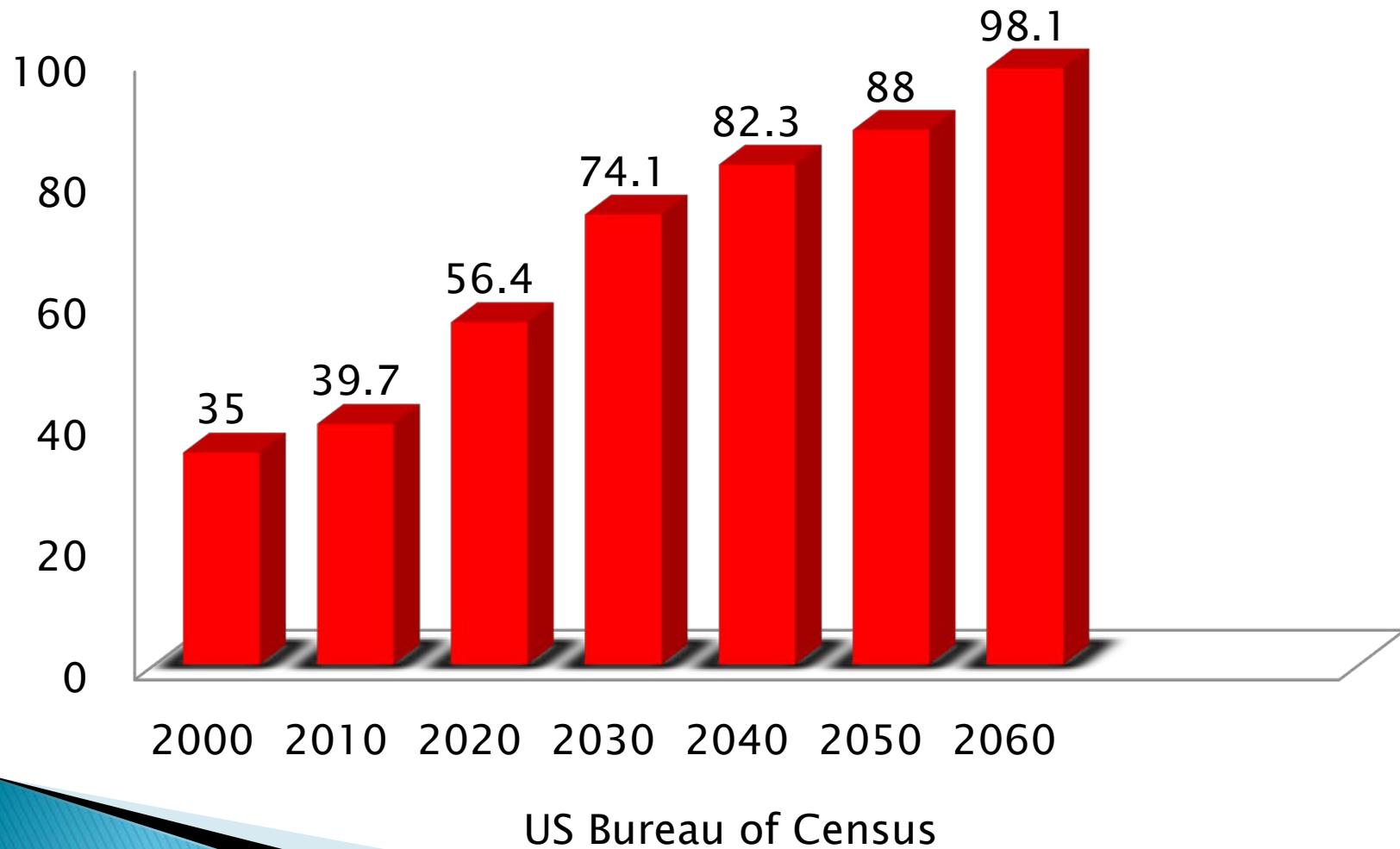
An Aging Nation: The Older Population in the United States *Population Estimates and Projections*

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

Aging Nation

- ▶ In percentages

| | National | Onondaga |
|---------|----------|----------|
| ▶ 2014: | 14% | 20% |
| ▶ 2030: | 20% | (???) |

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??

Senior Issues

- ▶ Following ED visit > risk for :
 - medical complications
 - functional decline
 - Poorer quality of life
- ▶ Hwang; J Am Geriatr Soc 55:1873–1876, 2007.

More

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

Within 3 months!!!

- ▶ Chin MH, Jin L, Garrison TG et al. Older patients' health related quality of life around an episode of emergency illness. Ann Emerg Med 1999;3: 595–603.



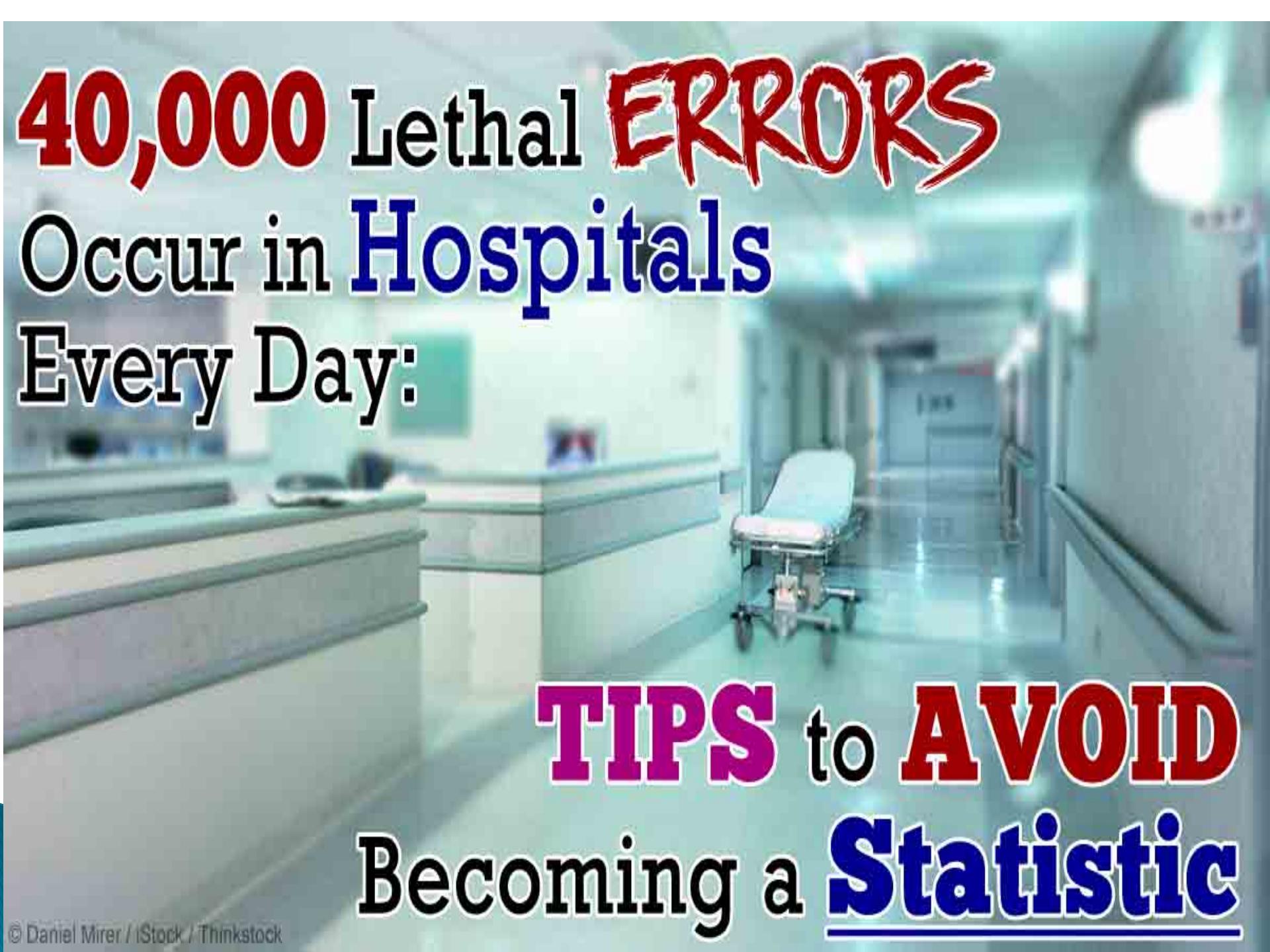


Hospitals Are Hazardous



"Get undressed and put on this hospital gown."





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

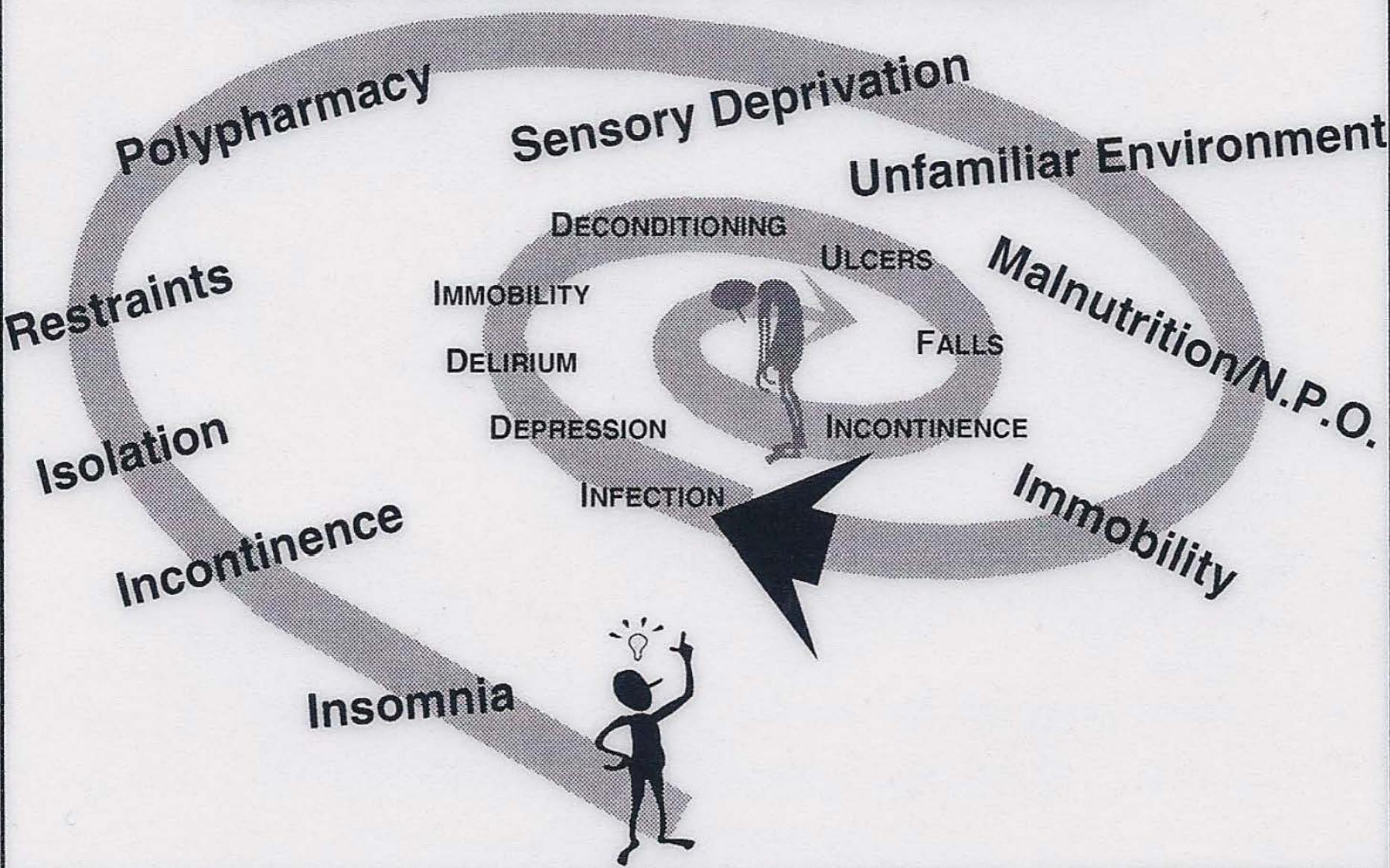
**TIPS to AVOID
Becoming a Statistic**

Hazards

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

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

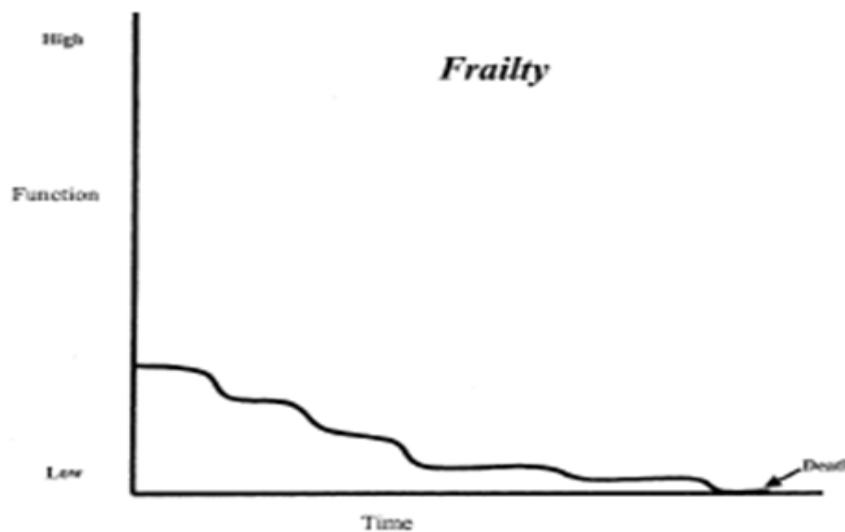
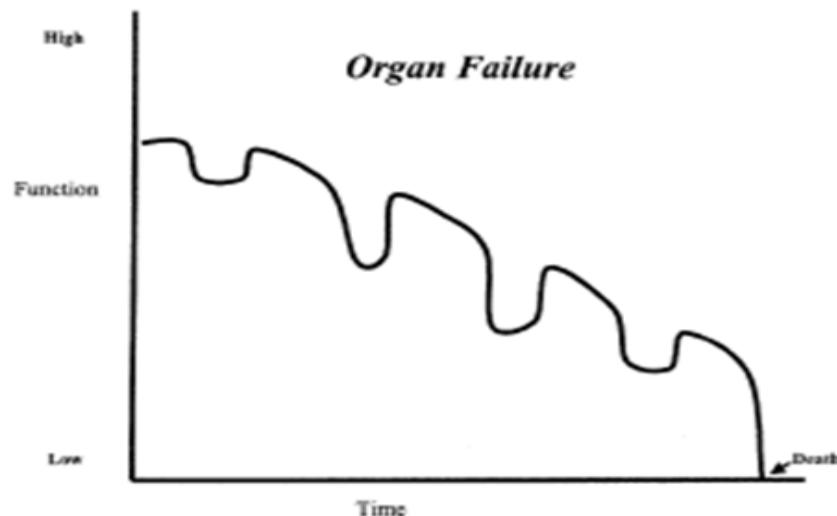
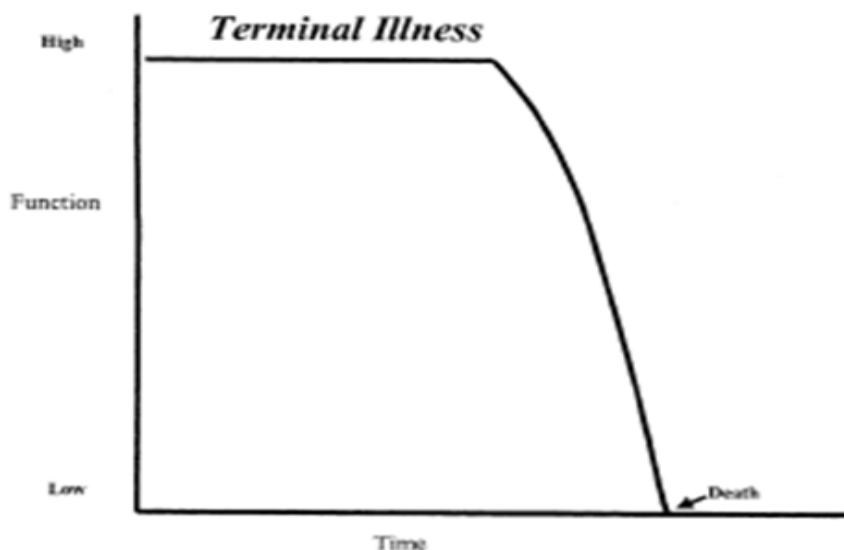
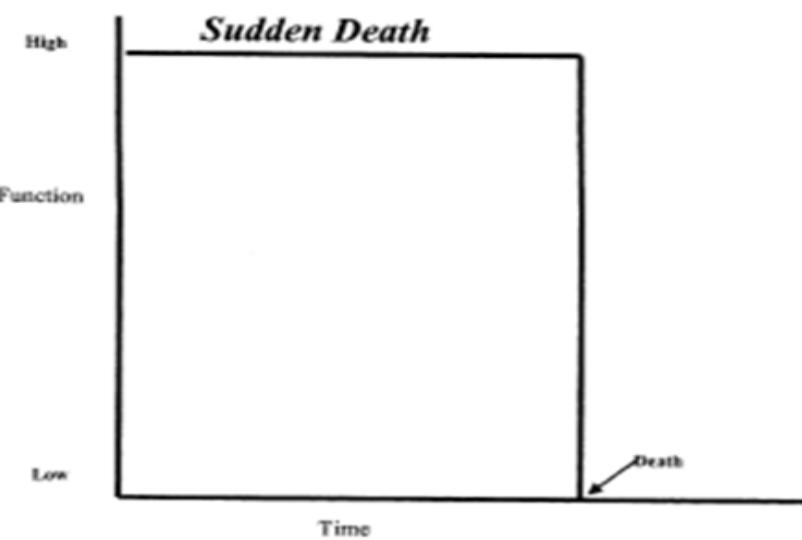


“Profiles of Older Medicare Decedents”

- ▶ 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



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

GERIATRIC EMERGENCY DEPARTMENT GUIDELINES



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
Hwang, Morrison. J Am Geriatr Soc 2007

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

Disconnect: ED v. Elder Care

- ▶ 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



Hwang

- ▶ “...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

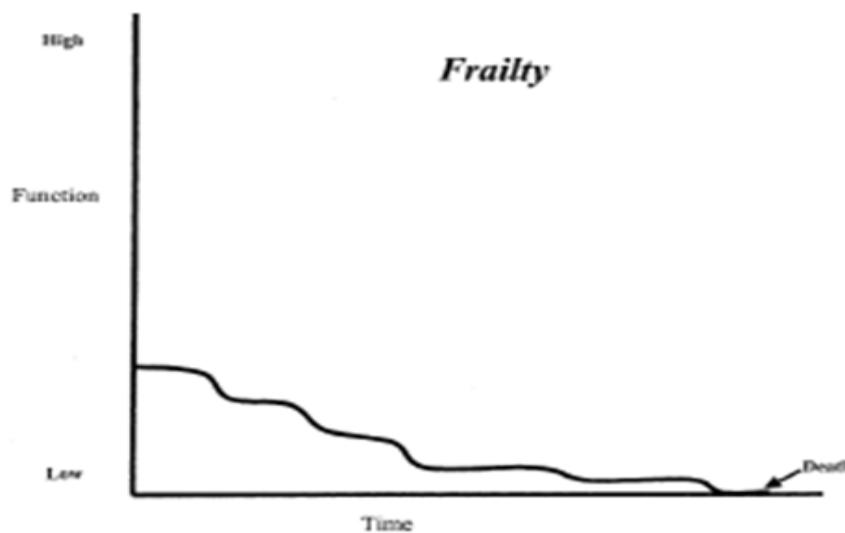
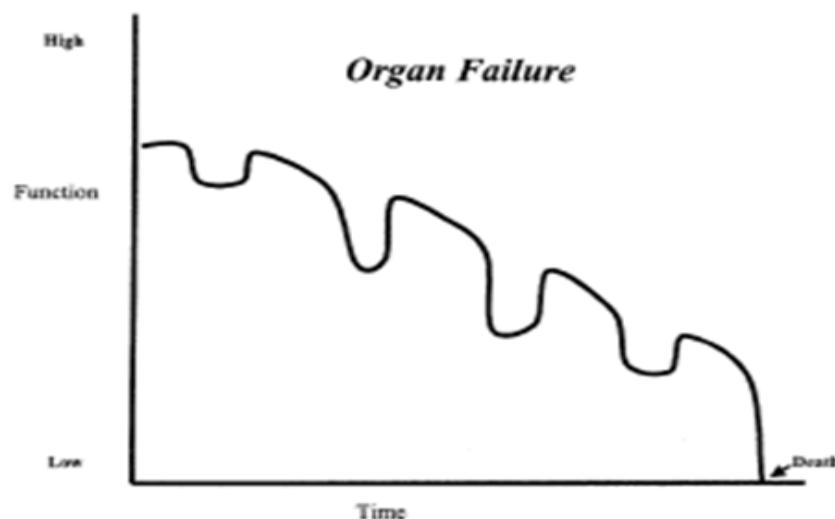
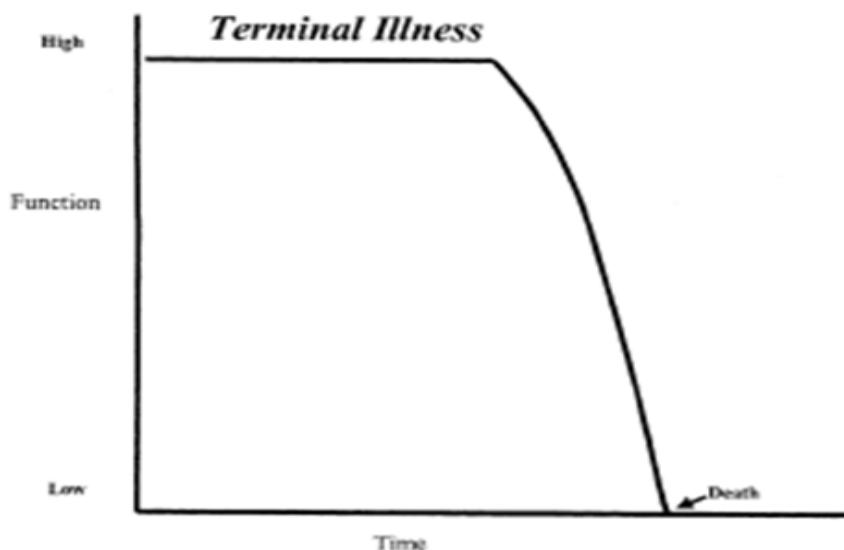
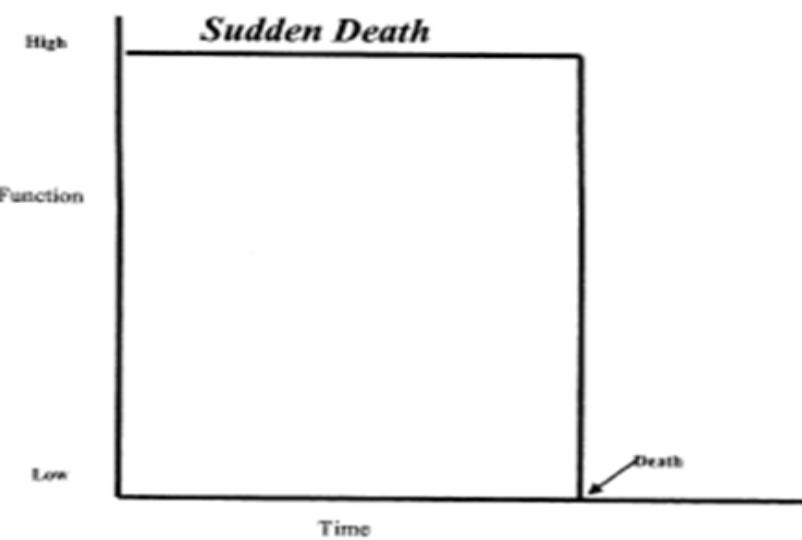
- ▶ Patient Comfort Extras
 - Cheaters, warm blankets, hearing aides
- ▶ Palliative Care Introduction
- ▶ Outpatient Care Integration
 - PCP
 - Visiting Nurse's
 - Home Health Aides
 - Transportation

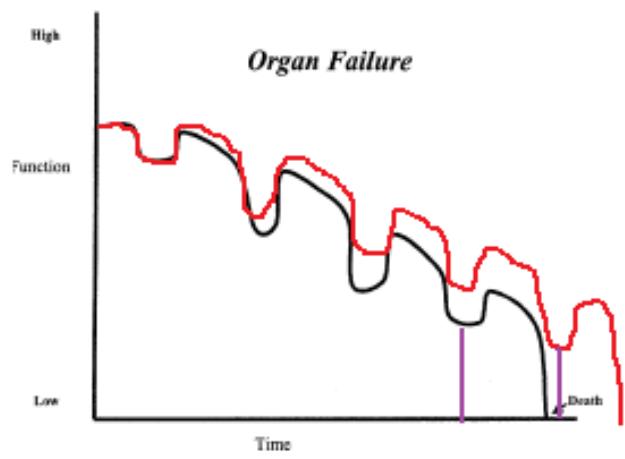
Focus population

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



Proposed Trajectories of Dying





Quality
of Life

Home Care

Independent,
Healthy Living

Community
Clinic

Chronic Disease
Management

Doctor's
Office

Residential Care

Assisted
Living

Skilled
Nursing Facility

Acute Care

Specialty
Clinic

Community
Hospital

ICU

\$1

\$10

\$100

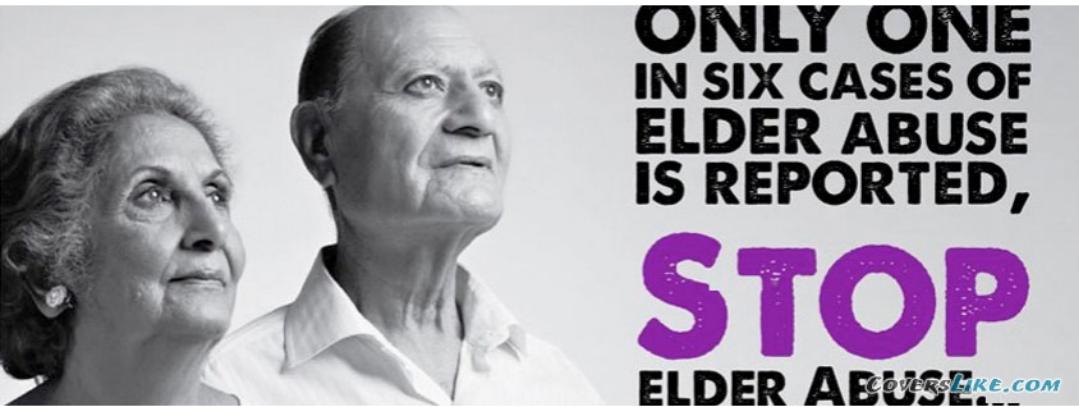
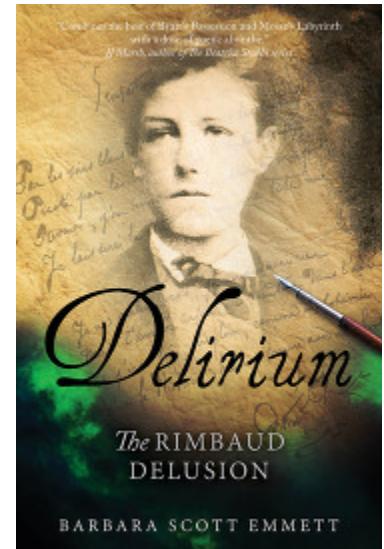
\$1,000

\$10,000

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

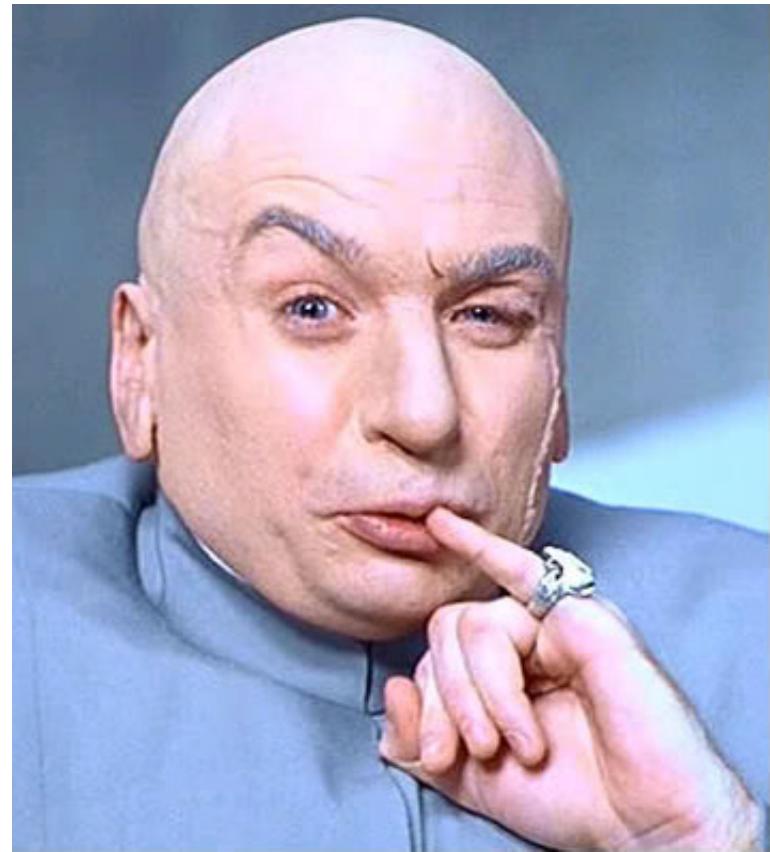


Delirium

- ▶ 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
- ▶ Inouye, et al; Delirium in Older Persons; N Engl J Med 2006;354:1157–65.

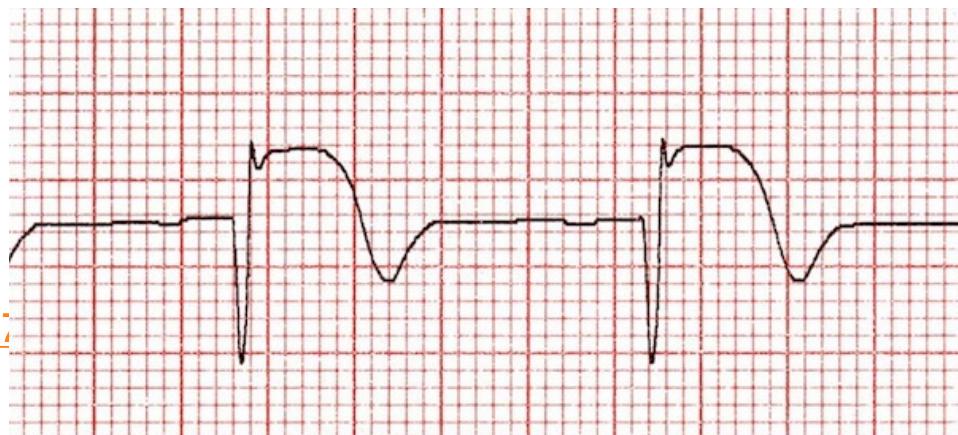
Delirium

- ▶ Phenomenally prevalent
 - ▶ Hospital Mortality Rate: 22–76%
 - ▶ One year mortality rate: 35–40%
 - ▶ Under diagnosed: clinical
-
- ▶ Inouye, et al; Delirium in Older Persons; N Engl J Med 2006;354:1157–65.

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

- ▶ 1. [Circulation 2012; 125:1848.](#)
- ▶ 2. [The OPERA registry. Eur Heart J 2007](#)
- ▶ 3. [Am J Med 2011; 124:40.](#)



Etiology

- ▶ Acute Encephalopathy!
- ▶ Multifactorial
- ▶ Vulnerable patient combined with precipitating factors

Clinical Characteristics

- ▶ Acute onset
 - ▶ Fluctuating course
 - ▶ Inattention
 - ▶ Disorganized
 - ▶ Altered LOC
-
- ▶ Inouye, et al; Delirium in Older Persons; N Engl J Med 2006;354:1157–65.

Clinical Characteristics

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



Inouye, et al; Delirium in Older Persons;
2006;354:1157–65.

Clinical Characteristics

- ▶ Hypo
 - Lethargy
 - Common In Seniors

- ▶ Inouye, et al; Delirium in Older Persons; N Engl J Med 2006;354:1157–65.



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

Ann Emerg Med. March 2002;39:248-253.

- ▶ 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

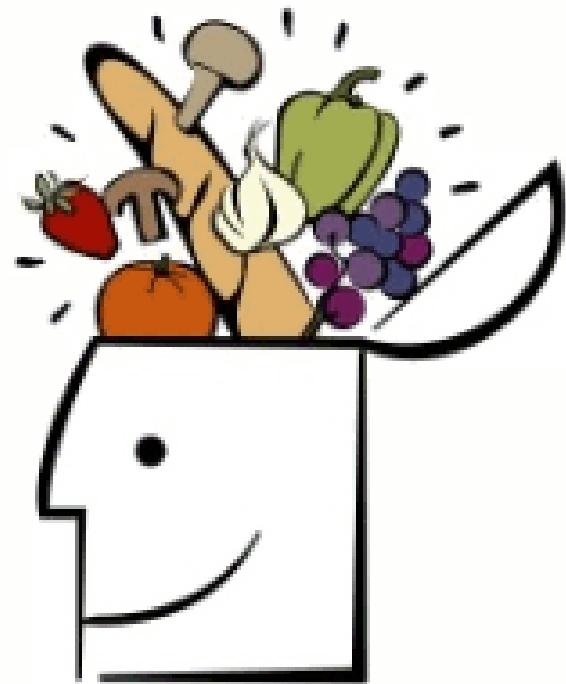
- ▶ 11/30 patients with delirium were DC'd!
- ▶ 16/23 with cognitive impairment who were DC'd had no prior history of impairment

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

Poly pharmacy

- ▶ 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

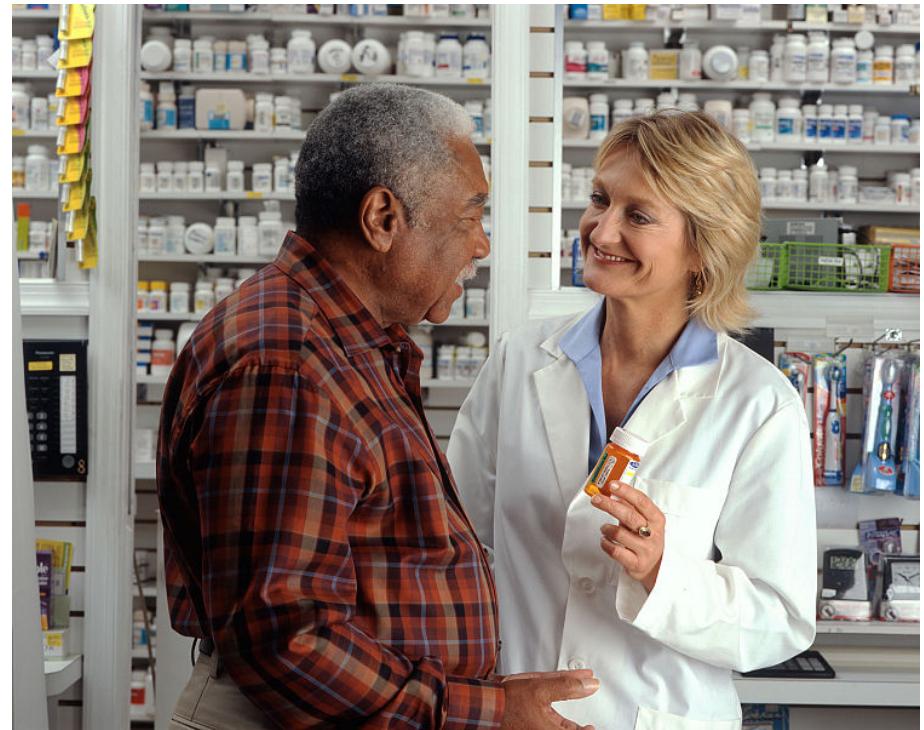
Drug Therapy in ED & During Hospitalization

- ▶ Identify risk of poly-pharmacy
 - Zip Lock Bag size is evaluation tool!
 - Pint
 - Quart
 - Gallon



Answer??

- ▶ 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!!

Conclusions/Implication

- ▶ Higher anticholinergic use associated with increased risk of dementia
- ▶ Non reversible!!

Elder Abuse



Elder Abuse is a Crime

- ▶ **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

Elder Abuse

- ▶ 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 J. Martin

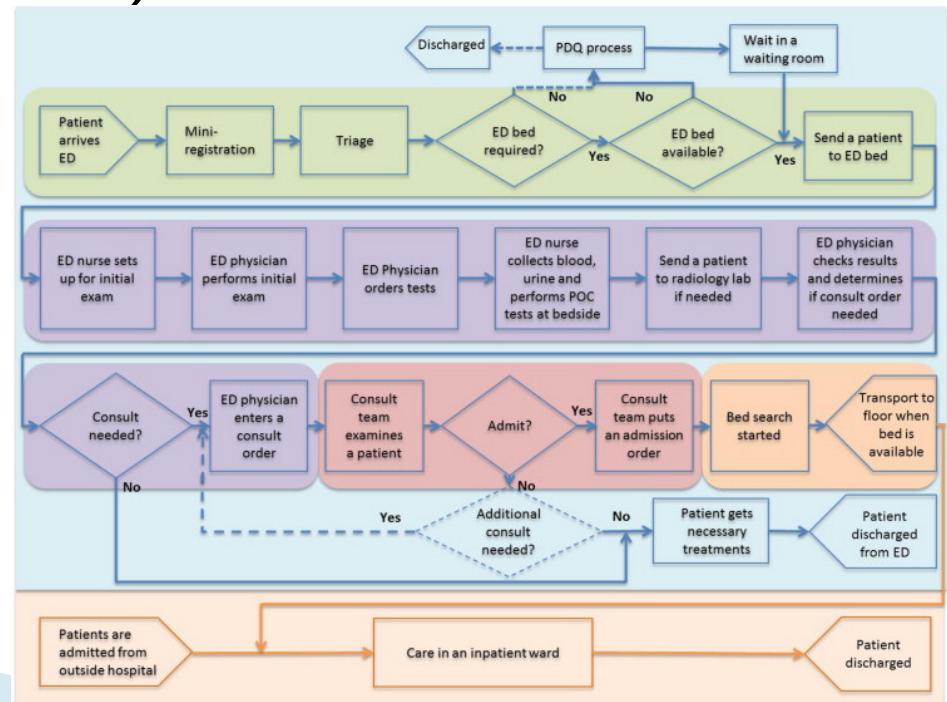


Emergency department nurses' perceptions and experiences of providing care for older people

Gallagher RN, Fry RN, at al. *Nursing and Health Sciences* (2014), 16, 449-453

Background

- ▶ 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)



Background

- ▶ 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



Background



- ▶ 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



Proposed Question

- ▶ 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”

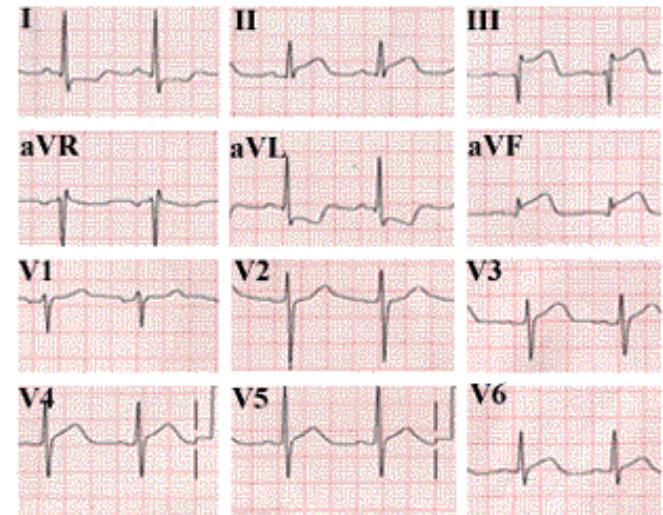
Findings

- ▶ “...basic nursing care was long gone.”
- ▶ Inability to provide basic nursing care:
 - Hydration
 - Continence care
 - Comfort Care



Findings

- ▶ “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.”



Findings

- ▶ “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

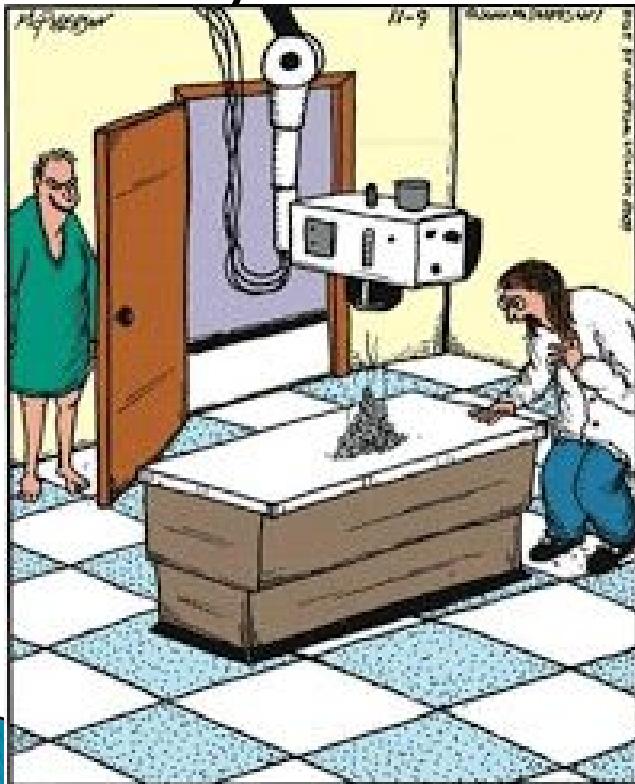


Discussion

- ▶ 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

Discussion

- ▶ Need to develop an interdependence between nurse's and caregivers to ensure patient safety.

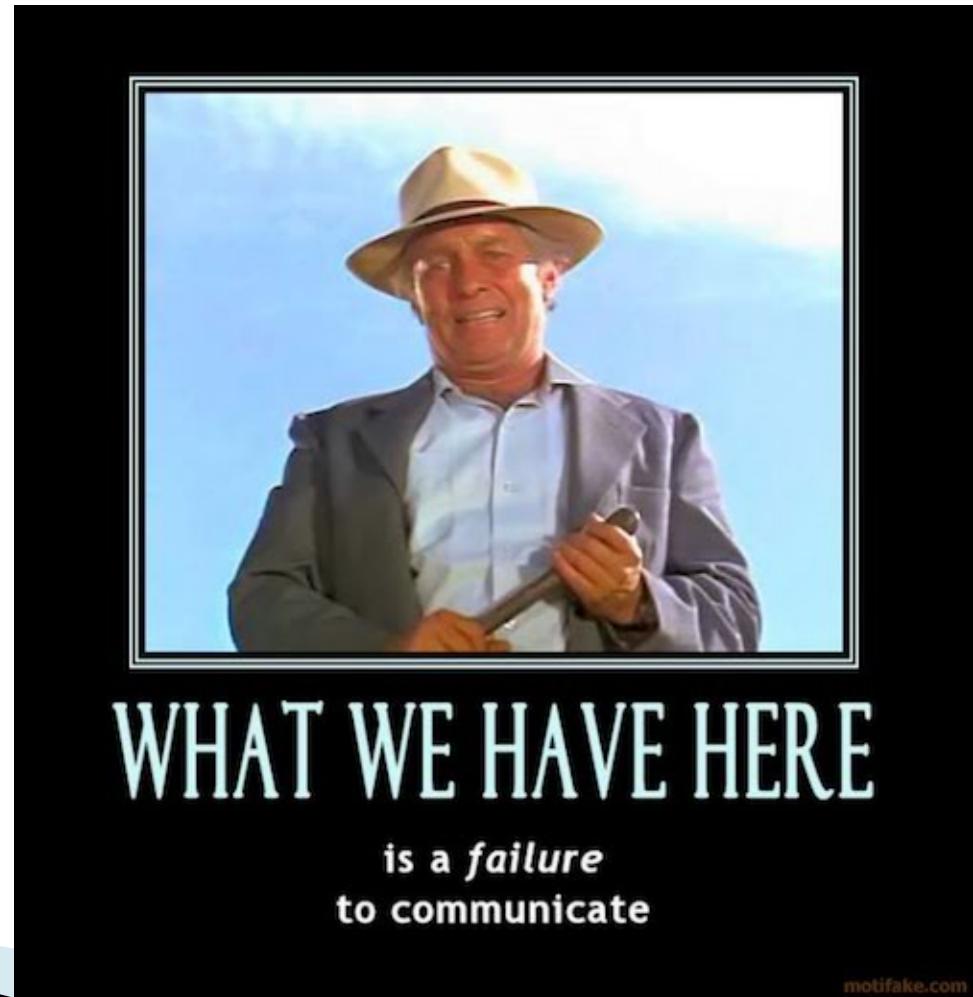


Having dumped the bag of ashes on the table, Stew hid behind the door and waited for the X-ray technician's reaction.



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??





SARATOGA
SPRINGS

The sign features the words "SARATOGA" and "SPRINGS" in large, white, serif letters. These letters are partially submerged in a dense bed of vibrant red flowers, likely geraniums, which is itself situated on a low, grey stone wall. Behind the flowers, there is a small, dark, rectangular plaque or plaque holder. The entire arrangement is set against a backdrop of lush green trees and foliage, with a paved road visible in the foreground.