Owensboro Health

- 477 Bed Regional Hospital
- 32 Bed ICU
- 30 Transitional Care Beds
- Level III Trauma Center
- Level III NICU
- Largest employer west of Louisville in the Commonwealth of Kentucky
Bill J. Bryant, MD FAAFP CPPS CMD

• CAQ (Geriatrics)

• Owensboro Health
  – Chief Quality & Patient Safety Officer
  – Medical Director of the Transitional Care Center

• Bill.Bryant@OwensboroHealth.org
Focus on Delirium and Care of the Aging: A Crosscutting Approach

November, 2016
“one of the most challenging patients in health care is the “agitated delirious patient.”

Just as challenging, for different reasons, is the lethargic confused patient who “just isn’t getting better”.

The patient ... was both.

Joseph H. Flaherty, MD
Did you know?

More than 7 million hospitalized Americans suffer from delirium

American Delirium Society website. Accessed 2/7/16
Delirium is an **acute** decline in **cognitive function** and **attention** and represents **acute brain failure**.

Consider Acute Kidney Failure analogy
Objectives:

Define delirium and hospitalization associated disability as geriatric syndromes, and their negative impact on clinical and functional outcomes of the older patient.

By considering current limitations and shortcomings within a historical perspective, promote an innovative vision for a more holistic model of management for the frail elderly patient to achieve optimal outcomes.

Describe the organizational crosscutting impact of this model in reducing harm events and improving quality outcomes.
Innovation

A new idea, **device**, or method
Innovation

A *new idea*, device, or method
To do things differently, we must see things differently.
This is not my mom!

https://www.youtube.com/watch?feature=player_detailpage&v=9QURzexhWP4
Delirium: A Symptom of How Hospital Care Is Failing Older Persons and a Window to Improve Quality of Hospital Care

Sharon K. Inouye, MD, MPH, Mark J. Schlesinger, PhD, Thomas J. Lydon, PhD
A Prediction

- 1900 • 47 yrs
- 1925 • 57 yrs
- 1950 • 68 yrs
- 1975 • 73 yrs
- 2000 • 78 yrs
- 2012 • 78.8

“Third leading cause of death behind heart disease and cancer”

Journal of Patient Safety, September 2013, Volume 9, Issue 3

251,000

2016

Martin Makary. BMJ 2016;353:i2139

A Prediction

(Life Expectancy average of male and female ages)
...frail patients are at risk for marked and often disproportionate decompensation,...

adverse events, procedural complications, prolonged recovery, functional decline, disability, and mortality.
(Life Expectancy average of male and female ages)  
The challenge: geriatric medicine is a young discipline...

IOM Report:
- Scarcity of faculty
- Few providers choose this career
- Decreasing number...
  - entering training programs
  - choose to recertify
Hospitalists care for elderly patients daily, but few have specialized training in geriatric medicine.

Ten Ways to Improve the Care of Elderly Patients in the Hospital. Angelena Maria Labella et al. Journal of Hospital Medicine 2011; 6: 351-357.
13% of population

8% of hospital discharges

1.8% of population

40% of hospitalized patients

Source: UpToDate: Accessed 1/15/2016
Agency for Health Care Policy and Research. Rockville, MD 2010
Pediatrics

Geriatrics

Geriatrics is not “Internal Medicine Lite”
Review: Postoperative Delirium in Older Adults: Best Practice Statement

Sharon K. Inouye & Thomas Robinson
The hallmark of delirium is **acute** cognitive **change** from baseline. (AD = Alzheimer’s Disease)
Delirium is a serious complication for older adults...

...an episode of delirium can initiate a cascade of deleterious clinical events ...

including other major postoperative complications,

prolonged hospitalization,

loss of functional independence,

reduced cognitive function,

and death.
Terra Crabtree’s Video here

• here is the YouTube link
  – https://youtu.be/bh5-cey-uYY

• Here is the Dropbox link:
  – https://www.dropbox.com/s/fa8j8of4oqe7wt7/Terra%20Edit.mp4?dl=0
Delirium is Serious

Often Fatal: Higher mortality rates

- at 1 month (14% vs. 5%),
- at 6 months (22% vs. 11%)
- at 23 months (38% vs. 28%);

- Compared to hospitalized patients with no delirium after adjusting for age, gender, race, and comorbidity

Review: Postoperative Delirium in Older Adults: Best Practice Statement
Sharon K. Inouye MD
Thomas Robinson, MD, MS, FACS
February 2015 Volume 220, Issue 2, pages 136–148.e1
Delirium initiates a cascade of deleterious clinical events

Longer hospital lengths of stay
  • (21 vs. 9 days)

Higher probability of long-term care
  • at discharge
    • 47% vs. 18%
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11% and
  • 6 months
    • 43% vs. 8%
  • 15 months
    • 33% vs. 11%

Compared to hospitalized patients with no delirium after adjusting for age, gender, race, and comorbidity.

A higher probability of developing dementia at 48 months
  • 63% vs. 8%
Rates of persistent delirium...

- at discharge = 45%
- 1 month = 33%
- 3 months = 26%
- 6 months = 21%

Among hospitalized patients who survive their delirium episode
Delirium is often...

- considered a less serious event
- not recognized
...It is imperative that clinicians caring for surgical patients understand optimal delirium care.
Delirium...

- is preventable in up to 40% of cases.
Delirium and the “Know-Do” Gap...

...Hshieh et al combined the results from 14 high quality trails studying multicomponent non-pharmacological interventions involving 4267 patients and found that these simple interventions reduced delirium by 53%.

Delirium and the “Know-Do” Gap...

These results are even more striking considering that delirium is the number one predisposing factor for falls.

...Hshieh et al were able to demonstrate a 62% reduction in falls owing to these interventions...

Consider if a new medication or technology achieved such outcomes.

Geriatric Syndromes

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Incontinence</td>
<td></td>
</tr>
<tr>
<td>Cognitive impairment</td>
<td></td>
</tr>
<tr>
<td>Delirium</td>
<td></td>
</tr>
<tr>
<td>Falls</td>
<td></td>
</tr>
<tr>
<td>Pressure ulcers</td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td></td>
</tr>
<tr>
<td>Weight loss</td>
<td></td>
</tr>
<tr>
<td>Anorexia</td>
<td></td>
</tr>
<tr>
<td>Functional decline</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
</tr>
<tr>
<td>Multimorbidity.</td>
<td></td>
</tr>
</tbody>
</table>

are clinical conditions common in older adults that share underlying causative factors and involve multiple organ systems.

They include a number of clinical conditions that, unlike traditional syndromes, do not fit a discrete disease category.
A **geriatric syndrome** is a multifactorial condition occurring primarily in frail elderly which is usually due to multiple contributing factors and results from an interaction between patient-specific impairments and situation–specific stressors.

**Complexity**

“Ten Evidence Based Pearls for care of the older hospitalized patient”

Ten Ways to Improve the Care of Elderly Patients in the Hospital. Angelena Maria Labella et al. Journal of Hospital Medicine 2011; 6: 351-357.
Polypharmacy: Discussion:

- ...medications may contribute to or exacerbate geriatric syndromes alone or through drug-drug or drug–disease interactions.

Complexity

Guidelines Abstracted from the American Geriatrics Society Guidelines for Improving the Care of Older Adults with Diabetes Mellitus: 2013 Update. American Geriatrics Society Expert Panel on the Care of Older Adults with Diabetes Mellitus
"Any symptom in an elderly patient should be considered a drug side effect until proven otherwise."

J. Gurwitz, 1995
Paradigm of Geriatric Syndromes

...rarely explained by a single cause.

Can we check a urine????

Simplicity

Covinsky et al JAMA. 2011; 306(16):1782-1793
As common as UTIs are in nursing home residents, asymptomatic bacteriuria is more common, occurring in > 30% of NH residents, and 100% of those chronically catheterized.

Every day, frail older patients are evaluated with unnecessary urine tests, incorrectly labeled with a UTI diagnosis, and treated with potentially harmful therapy.

Scapegoating of UTIs for the myriad behavioral and functional changes that occur commonly in frail older patients may delay identification of the correct diagnosis.

Heidi L. Wald, MD
U. of Colorado School of Medicine
This approach differs from the traditional medical approach...

Comparison of Two Approaches to Geriatric Syndromes using Falls as an example

New way of thinking

Geriatricians think and see things differently

Ten Ways to Improve the Care of Elderly Patients in the Hospital. 
Angelena Maria Labella et al. 
Journal of Hospital Medicine 2011; 6: 351-357.
It ain’t what you don’t know that gets you into trouble.

It’s what you know for sure that just ain’t so.

Mark Twain
A potent risk factor for the Hospitalization Disability Syndrome

30% of adults > 70 y.o. hospitalized for a medical illness are discharged with an ADL disability they did not have before becoming acutely ill.

> 50% of adults > 85 y.o. leave the hospital with a major new ADL disability

Covinsky et al JAMA. 2011; 306(16):1782-1793
A “Cascade to dependency”...

Functional decline during hospitalization is ... associated with poor prognosis.

- In one study of elderly patients with new ADL disability at discharge, over 40% were dead by 12 months after discharge, and only 30% returned to baseline function.
1 in 5 older adults is taking potentially inappropriate medications in the office and community settings.

In 45 days period after hospitalization an event identified in nearly 1 in 5 discharges. 
> 1/3 ADEs considered preventable
More severe events were more likely to be preventable...

1 in 6 hospital admissions of older adults is because of an adverse drug event
(4X > younger persons).

> 75 yo: 1 in 3 hospital admissions is because of an adverse drug event

Estimated that 12-17% of general medical patients experience ADEs after hospital discharge,
• a large percentage of which may be preventable.

1 in 6 older patients experiences an adverse drug event while in the hospital
Medications to Avoid or Use with Caution in Older People

>40 medications or medication classes

Divided into 5 categories

Journal of American Geriatrics Society. 2015

- The systematic process of identifying and discontinuing drugs in instances in which *existing or potential* harms outweigh existing or potential benefits...
- Is part of the good prescribing continuum which spans therapy initiation, dose titration, changing or adding drugs, and switching or ceasing drug therapies.
Adapted from Ian Morrison: 
Hospitals in Pursuit of Excellence. Accelerating Performance Improvement. HRET. April 2013 
Accessed 10/15/16
IMPACT Act:

- Use of Standardized Assessment data no later than

<table>
<thead>
<tr>
<th>SNF: October 1, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRF: October 1, 2018</td>
</tr>
<tr>
<td>LTCH: October 1, 2018</td>
</tr>
<tr>
<td>HHA: January 1, 2019</td>
</tr>
</tbody>
</table>

- Functional Status
- Cognitive Status
- Mental Status

(More...)
A Prediction:

Value = Quality / Cost

- 60-90-120-365 Day Mortality
- 60-90-120-365 Day Readmission
- Functional Outcomes
  - Cognitive
  - Mental
  - Physical
- Hospital Acquired Infection
- Harm Events
- Communication & Coordination of Care

- Medicare Spending Per Beneficiary expansion
- 60-90-120-365 Days
  - Total Cost
  - Ambulatory
    - Imaging
    - Laboratory
  - Hospitalization
  - Skilled Nursing Facility
  - Home Health, Etc.
Adapted from Ian Morrison:
The Second Curve. Managing the Velocity of Change
Evidence Based Medicine:
- Geriatrics Principles
- Internal Medicine Principles

Safety & Reliability Focus
- First do no harm
- Less is more

Patient Centered Care
- Optimal Outcomes for Older Patients
Adapted from Ian Morrison: The Second Curve. Managing the Velocity of Change
Relentless Mindfulness