Preventable Hospital Mortality

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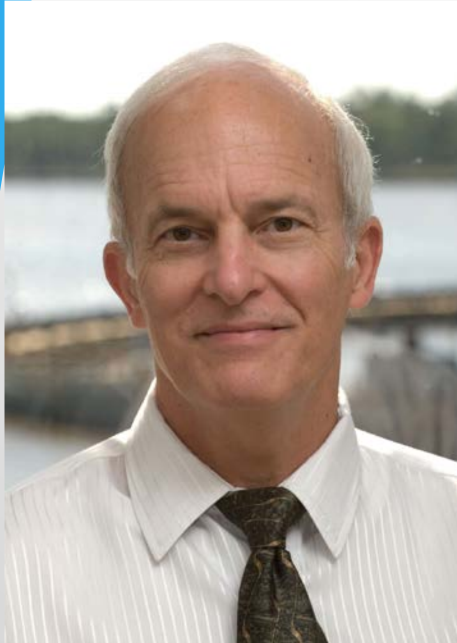
Preventable Hospital Mortality

Take Home Points:

- We know far too little about this subject.
- But we do know, that preventable deaths occur far too often.

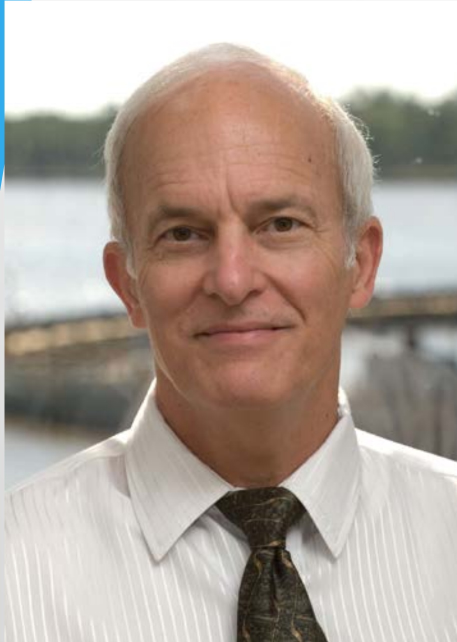
No One Is Counting



John James, PhD - 2013

- The medical profession was largely silent after the 1999 IOM report.
- In 2013, a NASA Scientist, a Father whose child died from a medical error published an updated estimate and refocused medicine on this problem.
- The estimate has been both widely praised and criticized.
- But most importantly it took a patient advocate to refocus medicine on this problem.

No One Is Counting



John James, PhD - 2013

Between 210,000 and 440,000 preventable deaths each year.

Based on four studies using the Global Trigger Tool.
-- OIG, 2008. N = 278
-- OIG, 2010. N = 838
-- Classen, et al.   N = 795
-- Landrigan, et al. N = 2341

Two studies did not determine preventability.
-- 2008 OIG (pilot study for the 2010 report).
-- Classen et al. (State 100% of deaths caused by adverse events should be considered preventable).
Weighted the Studies Based Upon Size of the N.

No One Is Counting

Leah Binder - 2016

206,021 preventable deaths each yr.

- The LeapFrog Group measures hospital safety using a total of 16 publicly reported metrics including;
  - laboratory reporting of Methicillin-resistant Staphylococcus aureus and Clostridia Difficile,
  - 3 Hospital Acquired Conditions and
  - 7 Patient Safety Indicators.

No One Is Counting

M Makary & M Daniel - 2016

251,454 preventable deaths each yr.

Based on Four studies.

-- Health Grades. 2004. N = 37 Million

-- OIG, 2010. N = 838

-- Classen, et al. 2011. N = 795

-- Landrigan, et al. 2010. N = 2341

Weighted the Studies Equally.

No One Is Counting

Kevin Kavanagh, et al. - 2017

163,156 preventable deaths each yr.

Based on Two studies which determined preventability and used the Global Trigger Tool.

-- OIG , 2010. N = 838

-- Landrigan, et al. 2010. N = 2341

Weighted the Studies Based Upon Size of the N.

No One Is Counting

- All of these studies used very different methodologies.
- However, they all came up with numbers which are far too high.
- Over 100,000 preventable deaths per year.

Reaction To These Publications

John James' Article Spurred The AHA:

- **American Hospital Association (AHA):** "Still, hospital association spokesman Akin Demehin, said the group is sticking with the Institute of Medicine's estimate."
- "Asked about the higher estimates, a spokesman for the American Hospital Association said the group has more confidence in the IOM's estimate of 98,000 deaths." (Allen M., Propublica. Sept. 19, 2013. https://www.propublica.org/article/how-many-die-from-medical-mistakes-in-us-hospitals)

1999 Institute of Medicine (IOM) report —found an annual incidence of preventable deaths between 44,000 to 98,000.

Reaction To These Publications

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There is a problem and there has been little or no improvement since 1999.

Reaction To These Publications

- The main reaction I have heard is not a commitment to invest more resources into patient safety.
- But instead the generation of a myriad of excuses justifying the status quo.

Anesthesia Patient Safety Foundation History

Since its inception in the mid 1980's, the Anesthesia Patient Safety Foundation has emulated many of the safety tenets of the aviation industry, such as techniques in critical incident analysis.

"A seminal publication from Harvard in 1978 described the use of the aviation-inspired critical incident analysis technique to understand the causes of anesthesia-related mishaps and injuries."

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- The error did not cause the fatality. Causality is difficult to prove. But does it matter?
- In the airline industry all factors are found and corrected.
- Proving causality is not required, events are not mitigated but dealt with seriously and corrected.

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Used with permission, The Atlantic, Sept. 2018 – Illustration by Denise Nestor

Is the Dinosaur-Apocalypse Story Wrong?

Was the extinction caused by:

- Volcanoes -- Deccan Volcanism hypothesis ?
- Or an Asteroid Impact ?

Both Events Occurred. Why does just one have to be responsible ?

Bosker B. The Nastiest Feud in Science. The Atlantic. Sept. 2018 Issue. https://www.theatlantic.com/magazine/archive/2018/09/dinosaur-extinction-debate/565769/

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- It is the patient’s fault because of poor Life Choices.
- Do we discount those who die in a train accident because they did not choose the safer mode of transportation, flying?

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- She was very sick or old and only had a short time to live.
- In a fatal crash of an airplane carrying 200 passengers, do airline companies only count 190 deaths because the other passengers were old and frail?

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- This was a very hard and complex case.
- The most dangerous portion of flying is the take off and landing. Do airlines discount deaths if a passenger flies a long distance with multiple connections?

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- European and Canadian studies have shown that the medical profession is doing well in preventing errors.
- The U.S. Healthcare System is fragmented and extrapolations are not valid. In the airline industry, data regarding preventable fatalities is not used from foreign carriers to determine the safety of the United States airline industry.

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Common Excuses Used To Justify Poor Performance

What if They Were Used in Aviation?

- **Full Disclosure:** In the airline industry all events which cause harm are fully disclosed.
- If your parked car gets sideswiped, is it acceptable for the driver to leave the scene? What if someone was injured?

The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

Are the Numbers Too Low ?

- **Who Commits the Error.**
  -- Fatalities caused by governmental approval of unsafe drugs and devices.
- **Diagnostic Errors.**
  -- A factor in up to 5% of hospital deaths.
  (Shojania, BMJ Qual Saf, 2016).
- **90% of adverse events are missed** in studies based solely on voluntary reporting or PSIs may underestimate the problem. (Classen, et al. 2010.)

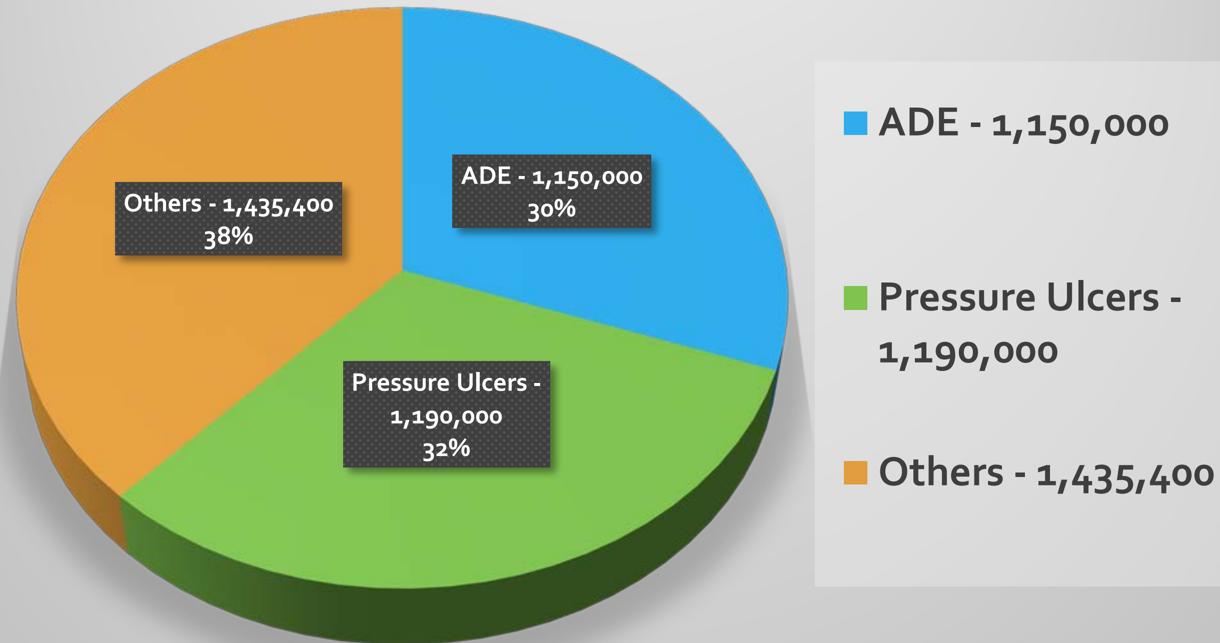
The Preventable Error Must Stand By Itself Must Be Separated From the Context of the Patient

We Can and Must Do Better

- **Little Standardization.** There is a resistance to setting standards. This July the AHRQ's National Guideline Clearinghouse shut down.
- **Aversion to Checklists.**
- **Poor Working Environment.**
- **Understaffing of Nurses.**

The Leapfrog Group study estimated 33,429 lives would be saved if all hospitals performed at a similar level to hospitals which achieved a safety score of "A"

We Can and Must Do Better



AHRQ: National Scorecard on Rates of Hospital-Acquired Conditions 2010 to 2015: Interim Data From National Efforts To Make Health Care Safer https://www.ahrq.gov/professionals/quality-patient-safety/pfp/2015-interim.html

We Can and Must Do Better

- Detractors will state there is only a little over 700,000 deaths each year in hospitals. (Hall: NCHS Data Brief. 2013)
- If you don't believe the figure of 200,000,
- Then what about the low range of the IOM figure? That of 44,000.
- Is that too many preventable deaths?

We Can and Must Do Better

- How about 10,000 ?
- Or 5,000 ?

We Can and Must Do Better

- What would happen to an airline company which had 5 preventable deaths and refused to acknowledge them or change practices?

If we do not change our direction,

we are likely to end up where we are headed.

Ancient Chinese Proverb

Thank You!