

# *What is a medical error?*

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# Medical Error



*"I know it when I see it." -1964*



# Disclosures



None

Other than as a resident, it is something I think about every patient I see, every surgery I participate in, and every family member I talk to.

Is it just me?

## Medical Errors in Orthopaedics

Results of an AAOS Member Survey

By David A. Wong, MD, MSc, FRCS(C), James H. Herndon, MD, S. Terry Canale, MD, Robert L. Brooks, MD, PhD, MBA, Thomas R. Hunt, MD, Howard R. Epps, MD, Steven S. Fountain, MD, Stephen A. Albanese, MD, and Norman A. Johanson, MD

2009 AAOS member survey:

- 53% observed a medical error in the last 6 months
  - 60% by the reporting MD, 37% by a nurse, 19% by another orthopaedic surgeon, house staff in 13%.

# Medical Error

**TABLE V How Would You Classify This Event?\***

★ Communications failure	24.7%
★ Equipment and/or instrumentation problem in operating room	20.0%
Improper technique and/or physician impairment	12.7%
Patient injury event	10.6%
★ Equipment problem with implants	9.0%
Wrong-site surgery	8.2%
Medication error	8.2%
Transition-of-care problem	6.3%
Imaging studies problem	6.1%
Blood or tissue event	5.5%
Adverse drug reaction	5.3%
Patient identification problem	2.0%
Antibiotic prophylaxis event	1.6%
Other	17.8%

\*Multiple responses were accepted.

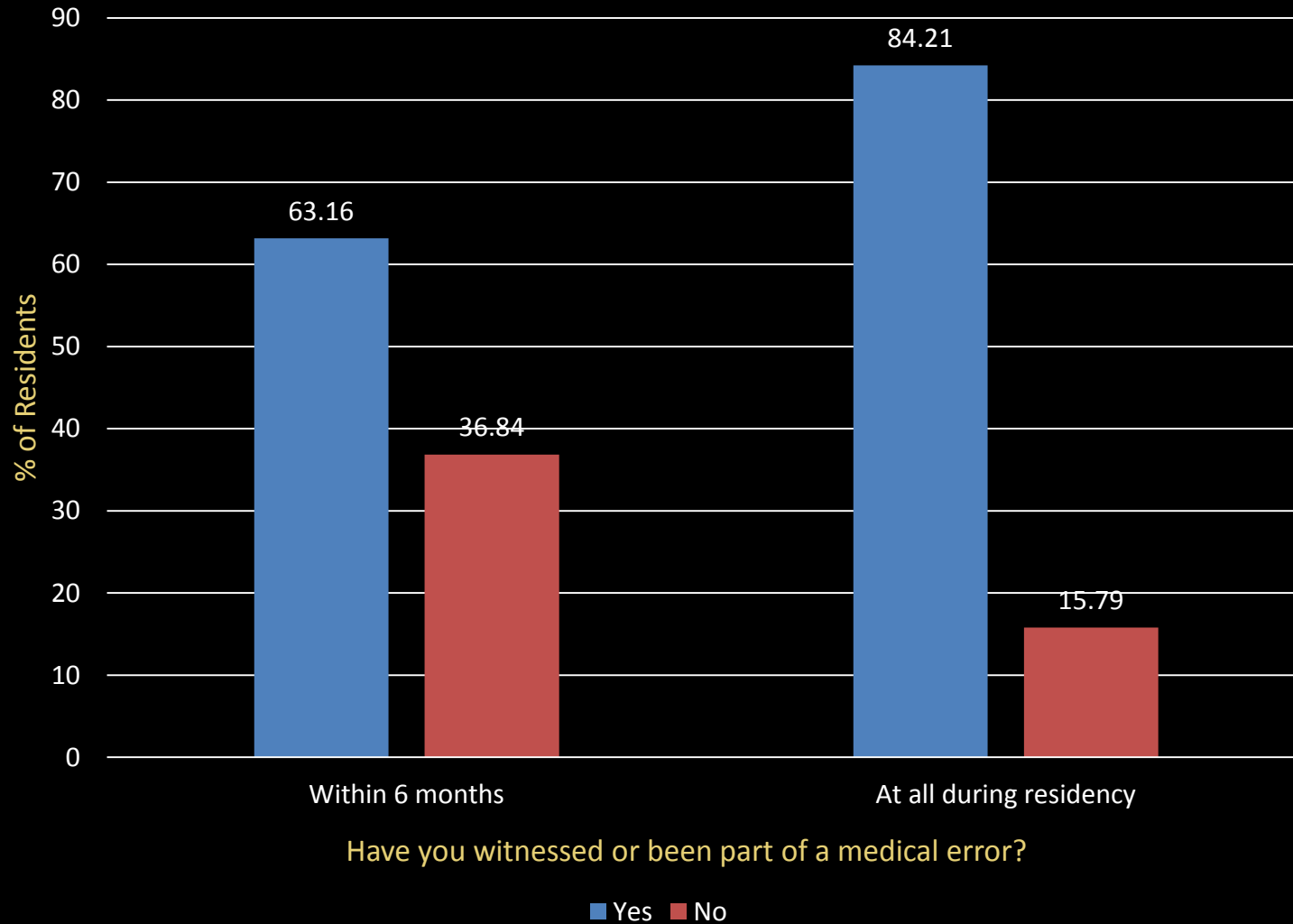
**TABLE VI What Was the Outcome of the Incident?**

No adverse event	41%
Near miss	9%
★ Adverse event with short-term morbidity	29%
★ Adverse event with permanent morbidity	14%
★ Death	3%
Unknown or no response	4%

**TABLE VII Did the Incident Result in Litigation?**

★ Yes	4%
No	57%
Undetermined or potentially	30%
Unknown or no response	9%

# Medical Error



# Medical Error



44,000-98,000 patient  
deaths/year from medical error

Institute of Medicine<sup>1</sup>:

**Error of execution**- the failure of a planned action to be completed as intended.

**Error of planning**- the use of a wrong plan to achieve an aim.

**Error of omission**- not doing something that ought to be done.

**Error of commission**- doing the wrong thing.



# How bad is the problem?

- Medical errors estimated to cost \$17-29 billion
- Average adverse drug event costs \$2262 per patient and increases LOS by 1.9 days
- If it is a *preventable* ADE, cost was \$4685 and LOS is increased by 4.6 days.
  - Difference is \$2423 and 2.7 days. Excludes costs of injuries, lost income, or legal fees.

# Who is at risk?

- Age over 64 (greater burden of comorbid illness or frailty).
- Complex interventions (potentially life-saving interventions)
- Being cared for in the emergency department (locum tenens, acutely ill)
- Longer LOS (Risk increases 6% each day spent in the hospital).
- ICU status

- Makary MA, Daniel M. Medical error-the third leading cause of death in the US. BMJ 2016;353:i2139.

Table 1| Studies on US death rates from medical error since the 1999 IOM report and point estimate from pooled results

Study	Dates covered	Source of information	Patient admissions	Adverse event rate (%)	Lethal adverse event rate (%)	% of events deemed preventable	No of deaths due to preventable adverse event	% of admissions with a preventable lethal adverse event	Extrapolation to 2013 US admissions†
Health Grades <sup>11</sup>	2000-02	Medicare patients	37 000 000	3.1	0.7*	NR	389 576	0.71	251 454
Office of Inspector General <sup>12</sup>	2008	Medicare patients	838	13.5	1.4	44	12	0.62	219 579
Classen et al <sup>13</sup>	2004	3 tertiary care hospitals	795	33.2	1.1	100	9	1.13	400 201
Landrigan et al <sup>14</sup>	2002-07	10 hospitals in North Carolina	2341	18.1	0.6	63	14	0.38	134 581
Point estimate from all data	2000-08	—	—	—	—	—	—	0.71	251 454‡

NR=Not reported.

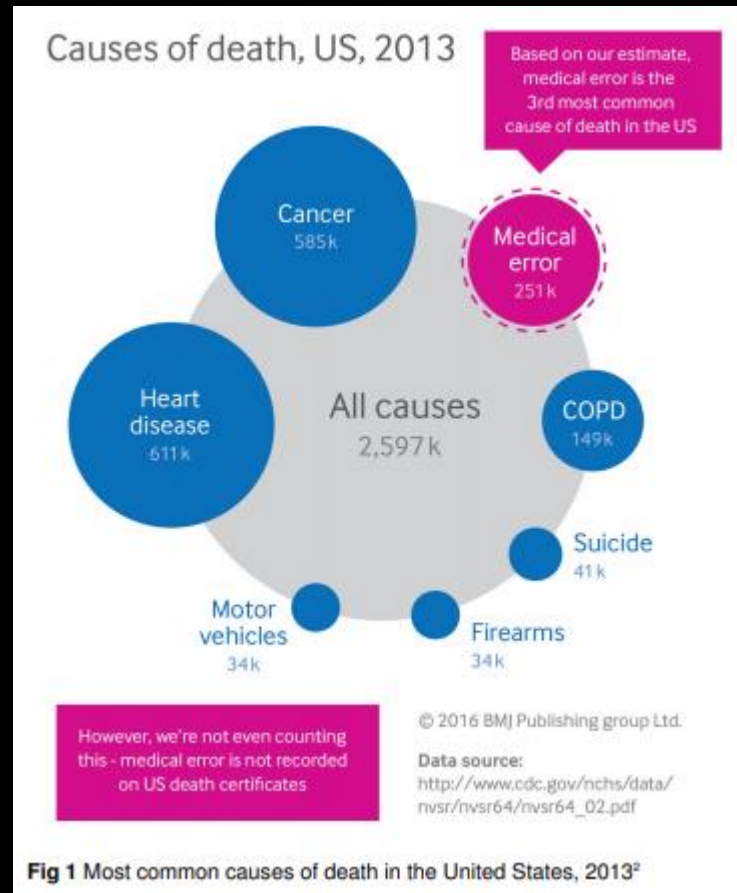
\*All were considered preventable.

†Total number of US hospital admissions in 2013 was 35 416 020.<sup>15</sup>

‡Total number of people who died from a preventable lethal adverse event calculated as a point estimate of the death rate among hospitalized patients reported in the literature extrapolated to the reported number of patients hospitalized in 2013.

# Medical Error

- Makary MA, Daniel M. Medical error-the third leading cause of death in the US. BMJ 2016;353:i2139.



# To the public

## Fatal Medical Errors Said To Be More Widespread

By Paul Davies Staff Reporter of THE WALL STREET JOURNAL

A new study coming out today estimates that the number of patients who died from medical errors is more than double the findings in a 1999 report that sparked widespread concern.



## Medical Errors Are The Third Leading Cause Of Death — How You Can Avoid Them



By Cary A. Present, M.D.

By ALAN MOZES / HEALTHDAY / July 10, 2018, 4:46 PM

## Doctor burnout behind many medical errors, study finds

## Woman's skin 'melts off' after medication error

 USA TODAY NETWORK Andy Pierrotti and Julie Wolfe, WXIA-TV, Atlanta

Published 4:32 p.m. ET May 10, 2017 | Updated 4:33 p.m. ET May 11, 2017

## Losing My Leg to a Medical Error

I lost my leg because of a preventable error. The loss of a limb is traumatic, and I experience waves of sorrow and regret. I struggle with continual pain in my residual limb, and am trying to learn how to walk with my prosthesis. My work as a physician has been put on hold.

By FREDERICK S. SOUTHWICK FEB. 19, 2013

# To the public



# To the legal system

- Prosecution is pursued under the tort system:
  - To compensate plaintiffs injured by negligence
  - Discourage the practice of negligence
  - Exact corrective justice
- To prove negligence
  1. Legal duty on the part of the doctor to provide care/treatment
  2. A breach of such duty (failure to adhere to standards of the profession)
  3. Relationship between a breach of that duty and injury to the patient
  4. Damages exist as a result of the injury that the legal system can redress



# To the legal system

- 2007 survey of arthroplasty surgeons:
  - >70% have been sued at least once for medical malpractice
- Review of 1452 closed malpractice claims
  - 37% of claims did **not** involve medical errors
  - 72% of those that did not involve medical errors **did not result in compensation**
  - Claims not involving errors accounted for 13-16% of total cost
  - 73% of those that did involve an error **did result in compensation**
  - \* Over 80% of claims did not involve **negligence**\*



# Medical Error

Near miss

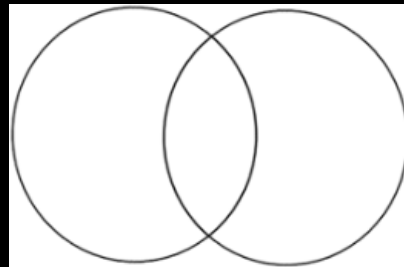
Malpractice

What a medical error is not...  
(necessarily)

Adverse event

Negligence

Complication



# Adverse event

An injury caused by **medical management** rather than the underlying condition of the patient.

Can be attributed to error, which is a **preventable adverse event**.

A **Negligent adverse event** is a preventable adverse event that meets legal criteria for negligence.

# Negligence

When there is a wholly irresponsible disregard of a serious risk to others, of which the defendant is aware or “to which he made himself willfully blind.”



# Complication

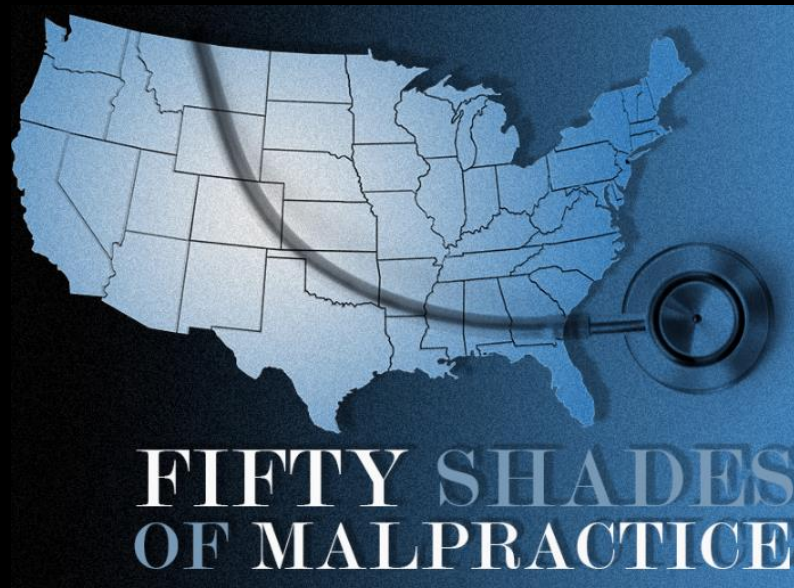
Any undesirable, unintended and direct result of an operation affecting the patient.



*"It's just temporary.  
Next time, don't take your Rogaine and Viagra at the same time."*

# Medical Malpractice

Any act or omission by a physician during treatment of a patient that deviates from accepted norms of practice in the medical community and causes an injury to the patient.



# Near Miss

An event that almost leads to patient harm, but is avoided because of luck or timely interception.



# *Medical Error*

## *Summary*

“We are aware of no study showing that medical care can be provided without error. In fact, the more closely we examine patient care, the more error we find. **No setting is free from hazards** and no specialty is immune, and patients are at risk no matter what their age, sex, or health status.”

— Weingart SN, Wilson RM, Gibber RW, et al. Epidemiology of medical error. BMJ 2000;320:774-7.



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# *Medical Error*

## *Summary*

What is a medical error?

It is **devastating** if it happens to **you**.

It is **devastating** if it happens to **your patient**.

It is perceived as a **public health crisis** that is increasing in **occurrence** and why I am able to talk to you today.



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# *Medical Error*

Thank you!



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# Medical Error

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