HOSPITALS MAY BE HAZARDOUS TO YOUR HEALTH
What is an Error?

- a mistake
- the state or condition of being wrong in conduct or judgement
- "Do you remember that patient you sent home ....??"
- Medical error can be defined as the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.
Medical Error

J Reason
- Execution
- Planning

L Leape
- Commission (e.g. giving penicillin to a patient with an allergy)
- Omission (e.g. no antibiotics for a septic patient)

Neither account for circumstances outside the physicians control (e.g. appropriate treatment of sepsis with antibiotics but results in anaphylaxis)

Error in medicine. Leape LL JAMA. 1994 Dec 21; 272(23):1851-7
The Cost of Error

- Approximately 200,000 Americans die from preventable errors each year.
- Direct costs of $17 billion in additional medical spending e.g. prescription drugs, in-hospital costs.
- The economic impact – Approximately $1 TRILLION a year when quality-adjusted life years (QALYs) are applied to those that die!
- Would rank as the 5th leading cause for death in US.

Why is the ER so high risk?

**Patient**
- Incomplete history
- Unknown patient
- Unexpected visit
- NESP

**Staff**
- Fatigue (shift work, breaks)
- Interruptions
- Handover
- Need for rapid treatment
- Management of multiple simultaneous patients

**Environment**
- High level of ambient noise
- Multiple patients / visitors / staff interactions
- Chaotic environment
- Overcrowding
- IT issues
- Triage
- Equipment e.g. standardisation

**Illness**
- Many harmless pathologies mimic serious pathologies
- Many significant illness have a harmless appearance
- Need for rapid assessment and intervention
Swiss Cheese

- Organisational factors
- Unsafe supervision
- Preconditions
- Unsafe acts

Bang!
Types of Error

- Diagnostic
- Latent
- Preventative
- Procedural
- Communication
- Cognitive
Cognitive Error
Cognitive Error

- Anchoring
- Availability
- Fixation
- Confirmation
- Visceral
- Anchoring
- Fixation
- Anchoring
Doctor please tell me boy or girl? i want to update status on facebook
Remembering the rare and vivid cases

E.g. a patient dying in surgery (a vividly emotional experience)

Memorableness = HIGH

Future probability of a rare event = LOW
Mr CC
Hx schizophrenia
1st presentation: April 2015
Headache / neck pain
Ct brain and bloods normal
Referred to psych
Outpatient MRI
May 2015 c spine xr
Confirmation Bias

Did you read my paper on confirmation bias?

Yes, but it only proved what I already knew.

The answer is clearly NO!
Mr TB

38 yo man

3 presentations to make the correct diagnosis

Hx chronic pain(post mva), ivdu, bipolar on lithium

Agitated, confused, aggressive, drowsy

Now being palliated
Chinese whispers video
Do No Harm

Primum non nocere
1950’s medical errors were largely considered “diseases of medical progress” and dismissed as “the price we pay for modern diagnosis and therapy.”

1960’s medical errors were a more noxious event and potentially compensatable

1990’s three major studies into patient safety and the term “adverse event”

Hazards of modern diagnosis and therapy: the price we pay. BARR DP J Am Med Assoc. 1955 Dec 10; 159(15):1452-6

Unintended injury or complication that results in disability, death, or prolonged hospital stay and is caused (including acts of omission and acts of commission) by health care management rather than the patients disease (Quality in Australian Health Study, 1995)

Only preventable adverse events are attributed to medical error


Near Miss

- Any event that could have had an adverse patient consequence but did not, and was indistinguishable from a full-fledged adverse event in all but outcome
Adverse Patient Outcomes

Good Luck

Resilient Patient

Error Identified
Myths about ERrors

- Bad people make errors
- Errors are random and highly variable
- Errors of highly trained professionals are very rare
- The errors of highly trained professionals are sufficient to cause bad outcomes
- More commonly errors are caused by faulty systems, processes and conditions that lead people to make mistakes or fail to prevent them
Errors are subject to

Hindsight bias

Outcome Bias
Patient Safety Practices

- Preoperative / anaesthesia / procedural sedation checklists
- Hand hygiene
- Avoid hazardous abbreviations
- Drug prescription and dispensing error reduction
- Barrier precautions to prevent healthcare associated infections
- Use of real time ultrasound for cvc placement
- VTE prophylaxis
- Pressure ulcer care
- Falls prevention
