

- A study of two UK hospitals found that 11% of admitted patients experienced adverse events of which 48% of these events were most likely preventable if the **right knowledge was applied**.
- The **under-utilization** of healthcare data- information- knowledge contributes to improper clinical decisions, medical errors, under-utilization of resources and raise in healthcare delivery costs

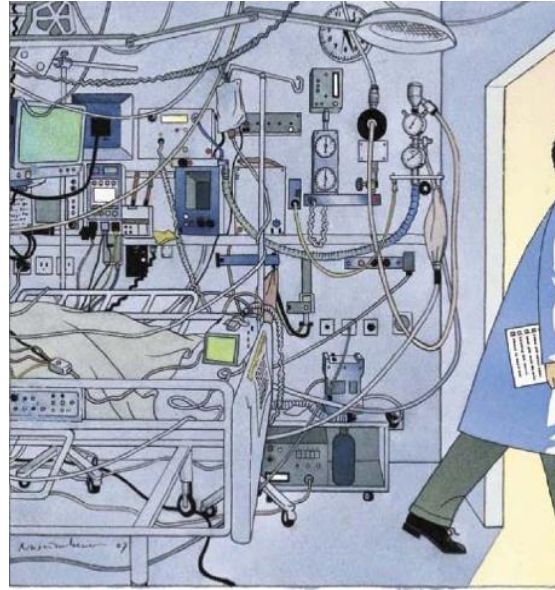


How safe is your hospital?

- Take 3 to 5 minutes to think about safety in your hospital or organization
- List 3-5 risk process or areas



Aircraft Vs. ICU



*“Modern healthcare is the **most complex human activity** there is, due to interpersonal relationships between many different clinicians with different expertise and interests, and we haven’t figured out how to make that work well.*

We have come to a full stop against a complex environment that resists accepting change on the scale clearly required”

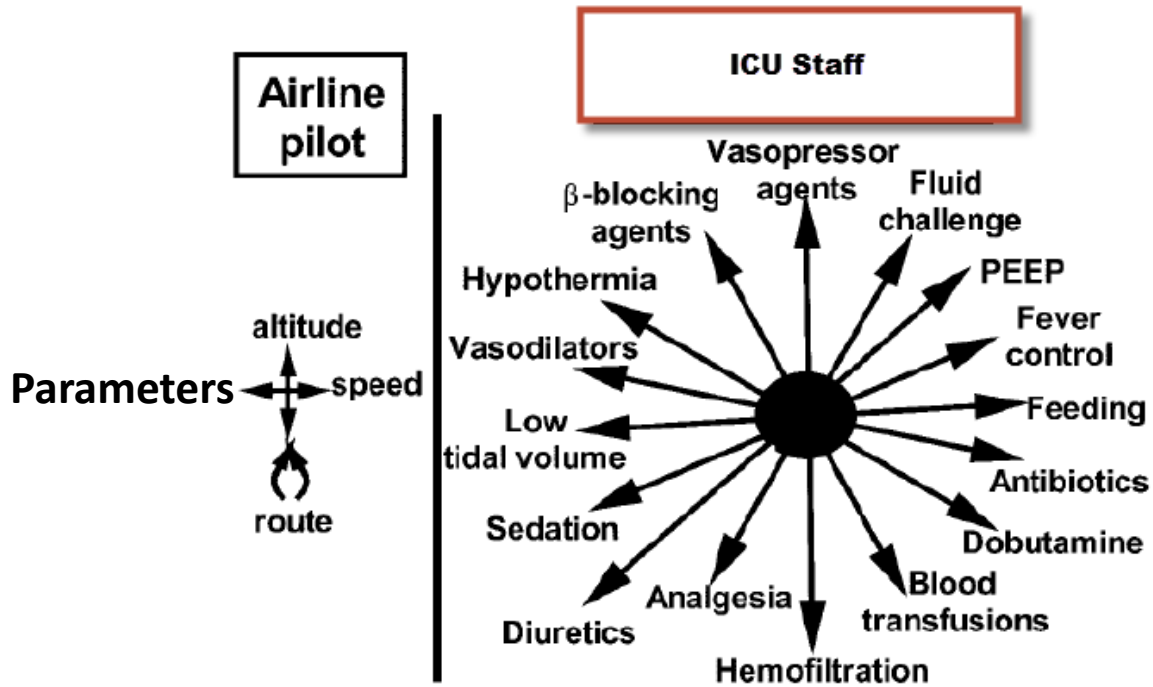
Lucian Leape, MD

Founder of the Modern Patient Safety Movement

Adjunct professor of health policy at Harvard University

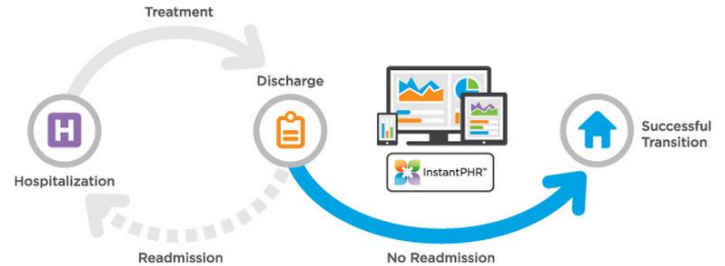
"Error in Medicine," published in JAMA, 1994





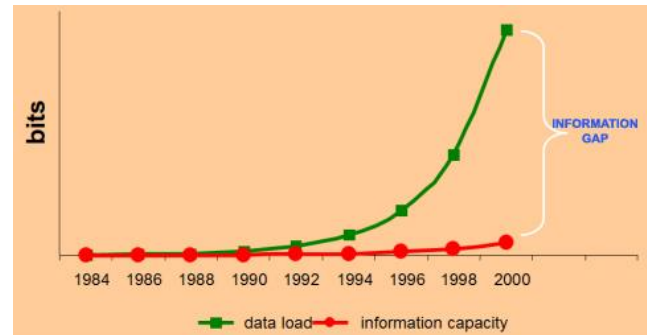
Safety Issues

- Medication errors
- Failure to rescue
- Readmissions
- Falls
- Pressure ulcer
- Sentinel events
- Hospital acquired infections
- Under reported incidents

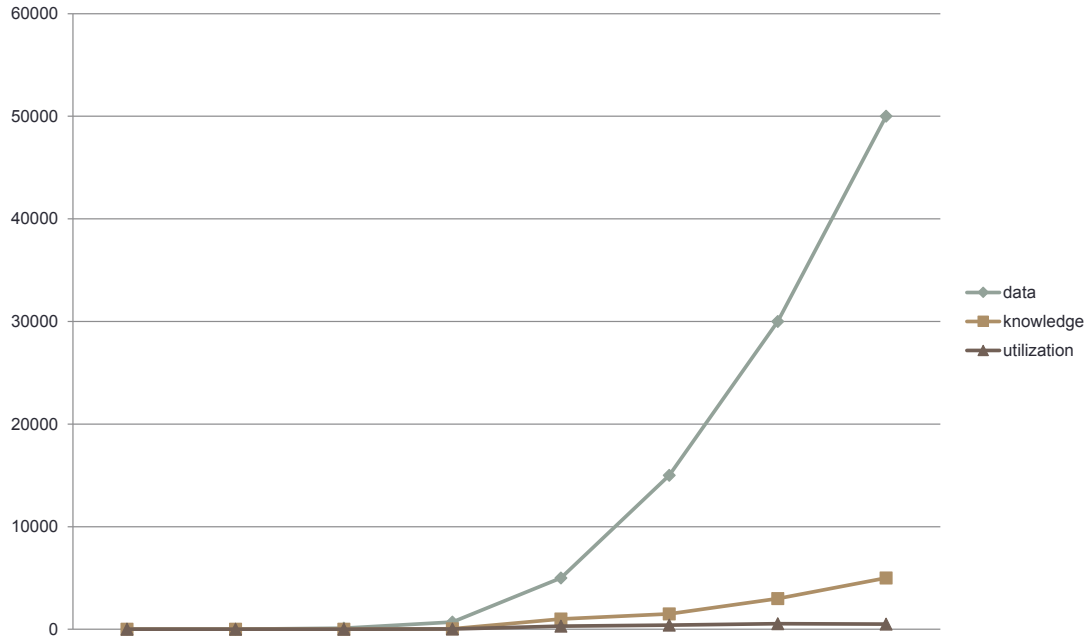


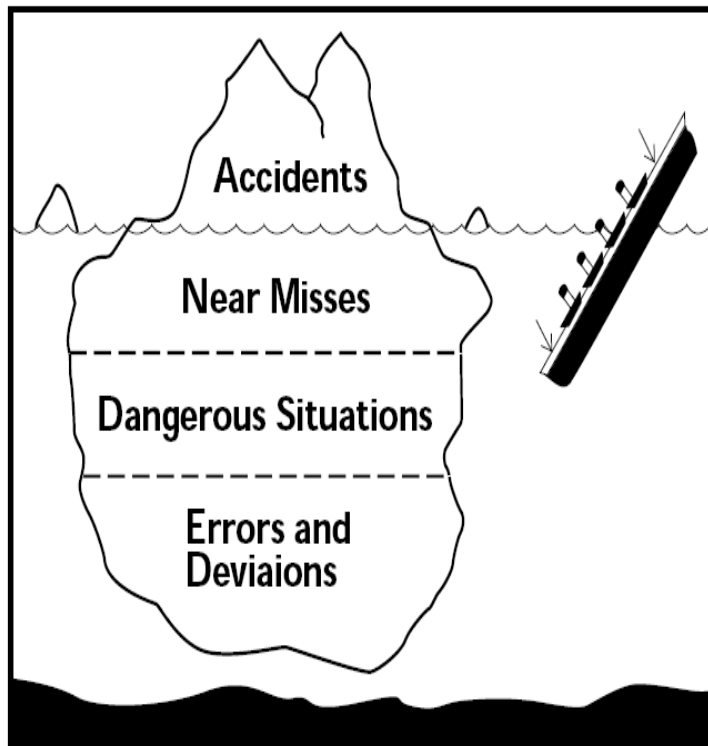
Flood of Information

- Huge gap in data acquisition and information \rightarrow knowledge capacity



Data – knowledge - utilization

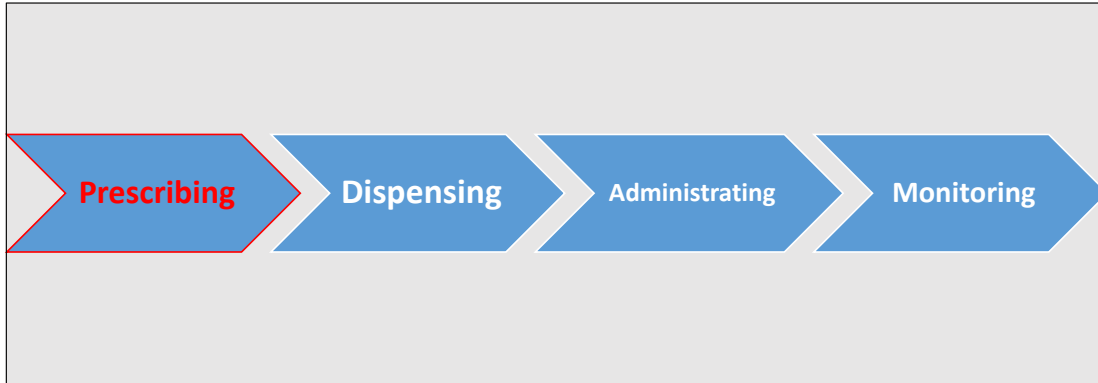




Battles JB, Kaplan HS, van der Schaaf TW, Shea CE. The attributes of medical event-reporting systems. *Arch Pathol Lab Med.* 1998;122:231-238.



i.e. Medication process

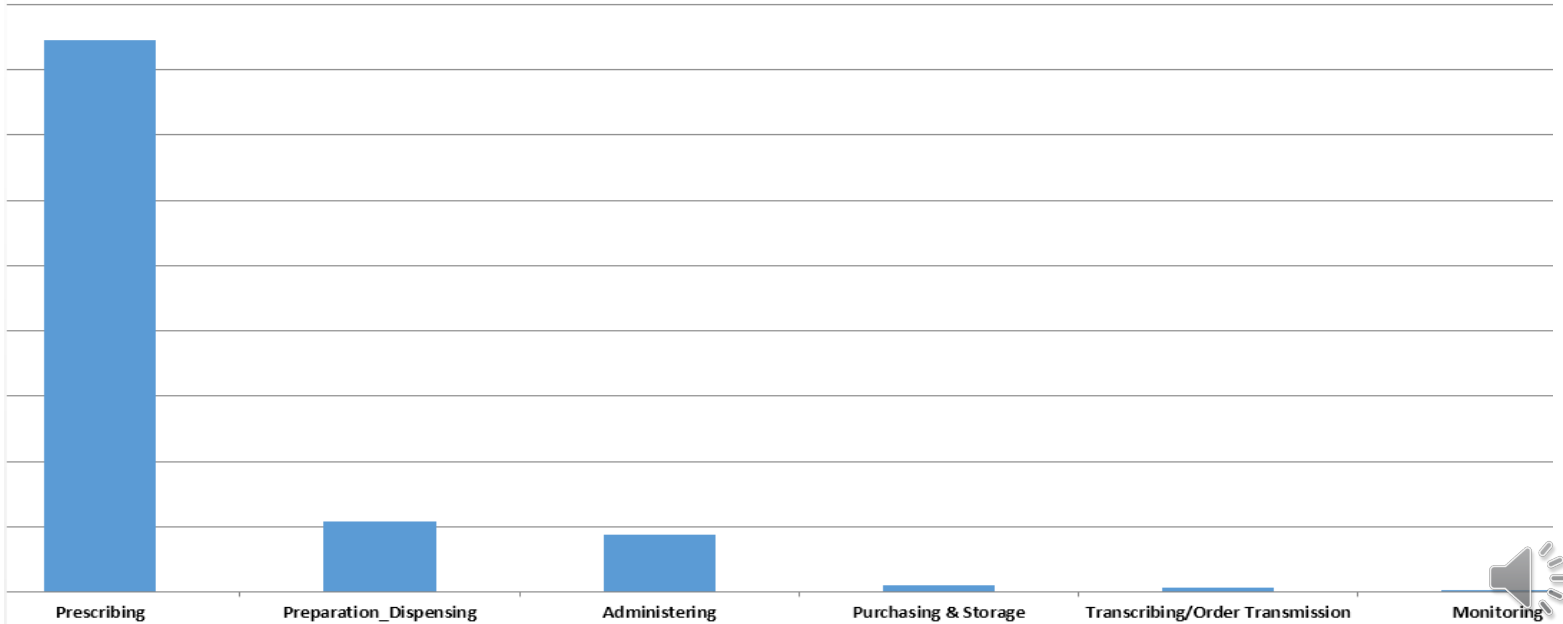


Medication errors (MEs) are common and considered one of the highest risk factors that threaten patients in hospitals. The majority of these errors are considered common during prescribing medication stage (Shulman et al, 2005).

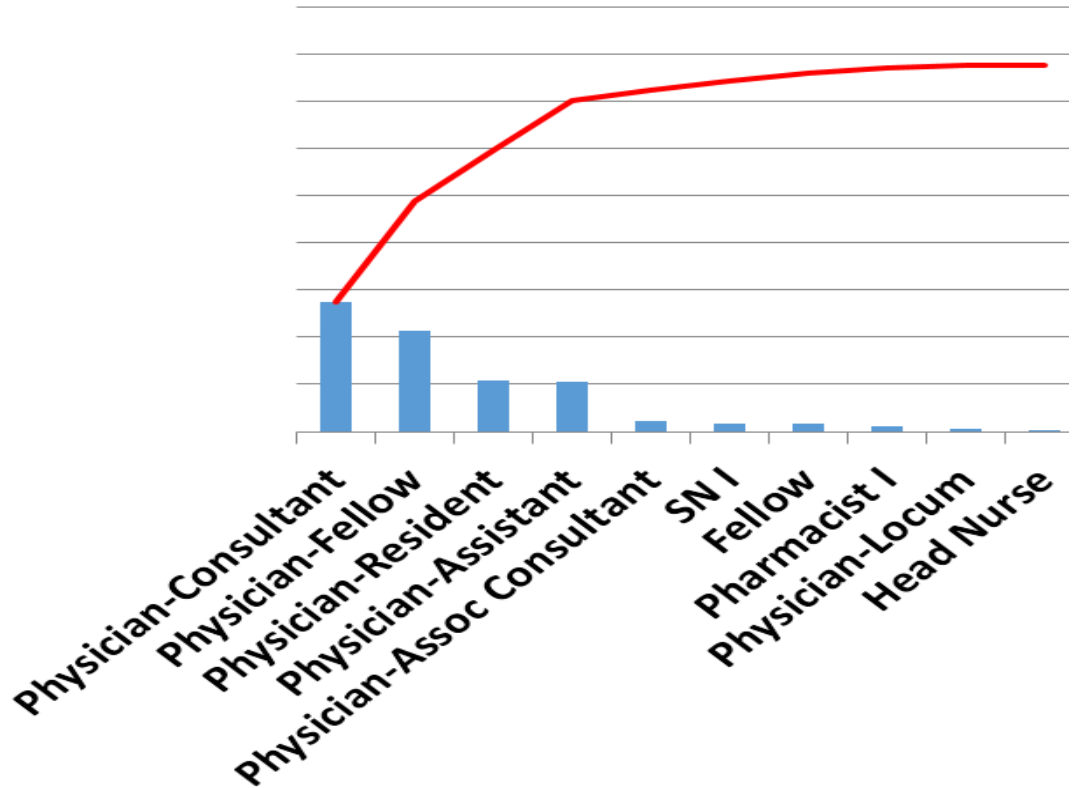


Where did it happened?

Medication by stage Example



Who did it?

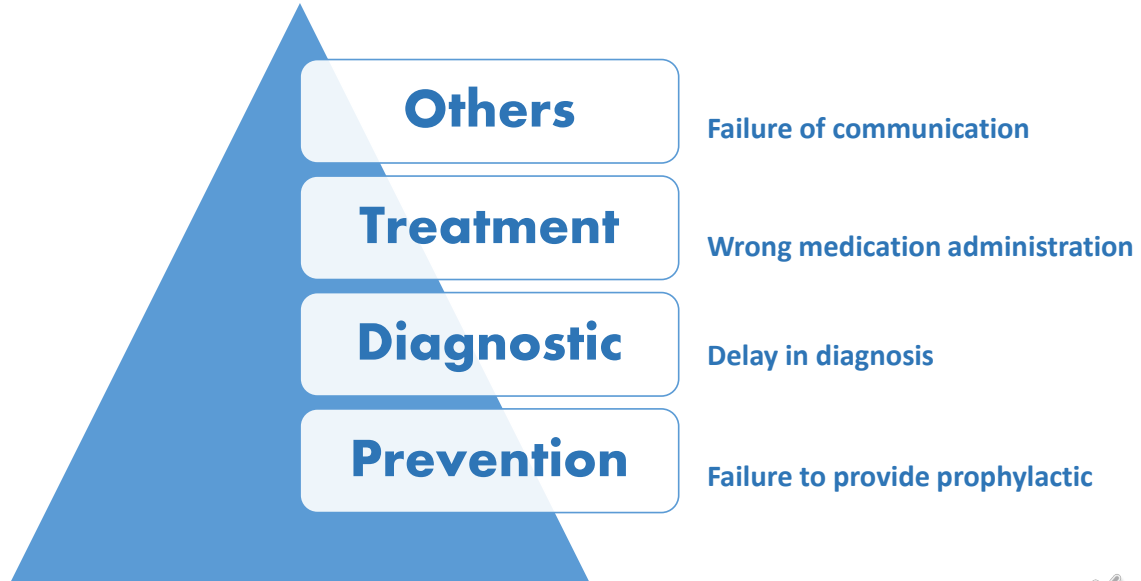


Prof. Lucian Leape MD

- Incompetent people are, at most, **1%** of the problem.
- The other **99%** are good people trying to do a good job who make very simple mistakes
- It's the processes that set them up to make these mistakes.



Error types



Air safety reports

Volume of reports and risk
British Airways data 1994 -1999



Key ■ Total number of reports ■ High and medium risk events (as a percentage of the total number of events)

