Patient Safety: A Competitive Weapon in Hospital Management

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Analysis

Medical error—the third leading cause of death in the US

BMJ talk medicine
Medical error–the third leading cause of death in the US

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Tamil Nadu: Two die in Ambur due to absence of doctors in hospital

Two patients died before a doctor could attend them. Outraged by the loss of their loved ones, the family members of the deceased blocked the hospital, causing panic among other patients.

Pramod Madhav
Vellore
August 15, 2017 UPDATED: August 15, 2017 14:00 IST

Tamil News » Medical Negligence

Medical Negligence

Bangalore

பிறந்த குழந்தையுடன் TikTok வீடியோவில் நடனமாடிய செவிலியர்கள்...

ஒடிசா மருத்துவமனை மகப்பேரு வார்டில் TikTok

NDTV
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Woman Gets ₹ 15 Lakh Payout In "Medical Negligence" Case

In 2011, the woman moved the Maharashtra State Consumer Disputes Redressal Commission seeking compensation on account of "medical negligence" in treatment of her husband.

Mumbai | Press Trust of India | Updated: August 02, 2019 13:07 IST

TRENDING

Watch: David Warner's Epic Response To Sandpaper Chants In Edgbaston

How India's Shadow Banking Crisis Sent Auto Sector Into Tailspin

Delhi: Do...
cal negligenc...
er's death

Tiwari after examining the child, g...
soon after. Family members sta...
Tiwari gave a wrong medicine to h...

Service | • New Delhi |
8, 2018 4:39:04 am

Medical negligence in Bihar: Left hand fractured, plaster cast on right

ANI | Updated: Jun 26, 2019, 12:52 IST

DARBHANGA: A case of medical negligence from Darbhanga Medical College Hospital has come into light after an orthopaedic doctor plastered the wrong hand of the boy who fell from a mango tree.

But it comes to patient safety, the numbers are startling

…..1 in 10 patients will be harmed during a hospital stay

WHO, 2014

The risk of a hospital-associated infection is significant

In the USA, if you are admitted to a hospital, you have a 5% chance of contracting an HAI

2 million — People per year get an HAI during a hospital stay

Of these > 99,000 People die annually from HAIs

US$ 28 – 33 billion per year in healthcare costs

30% Of Intensive care Unit patients develop HAI

Not just a problem for Hospitals

Of 8.8 million Outpatient adverse drug events, more than 3 million are estimated to be preventable

James 2013

- Half the global burden of patient harm originates in primary and ambulatory care, with as many as four out of 10 patients facing safety lapses *(Slawomirski L et al 2018)*

- It is estimated that up to 80% of harm in primary care settings can be avoided. (*Slawomirski L et al 2018)*

- Poor-quality care imposes costs of US$ 1.4 trillion to 1.6 trillion each year in lost productivity in low- and middle-income countries (National Academies of Sciences, Engineering, and Medicine, 2018) At the political level, the cost of safety failure includes loss of trust in health systems, in governments and in social institutions. (Slawomirski L et al 2017)

Safer Primary Care

Technical Series

Patient Safety Definition

- The avoidance, prevention, and amelioration of adverse outcomes or injuries stemming from the processes of healthcare. These events include 'errors', deviations', and 'accidents.'

Quality Improvement
Raising the Ceiling
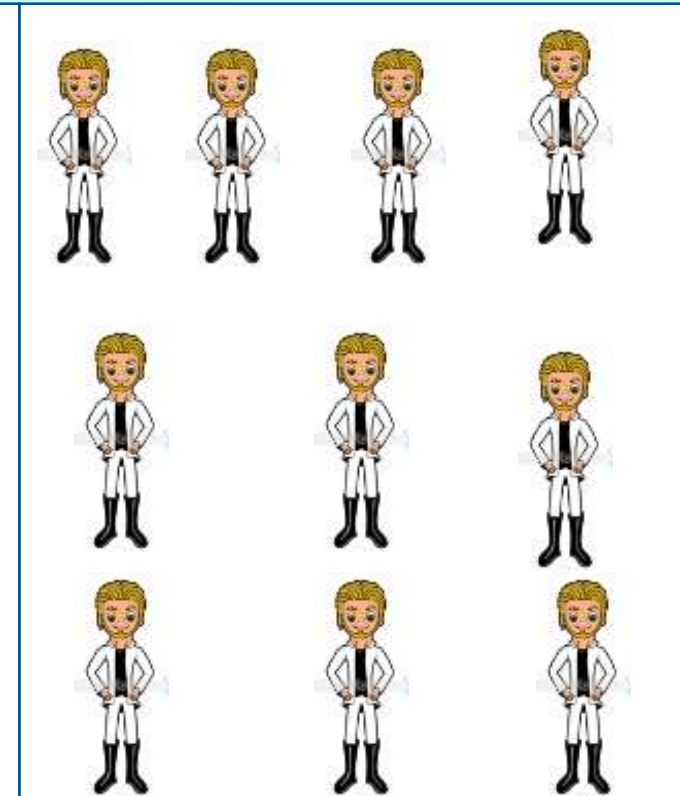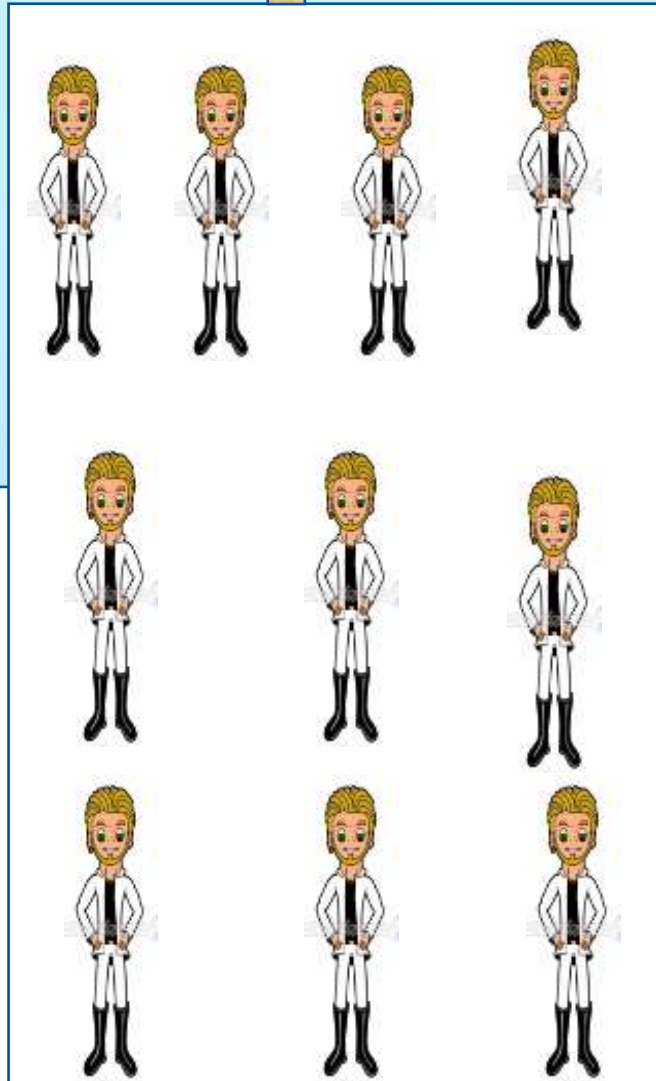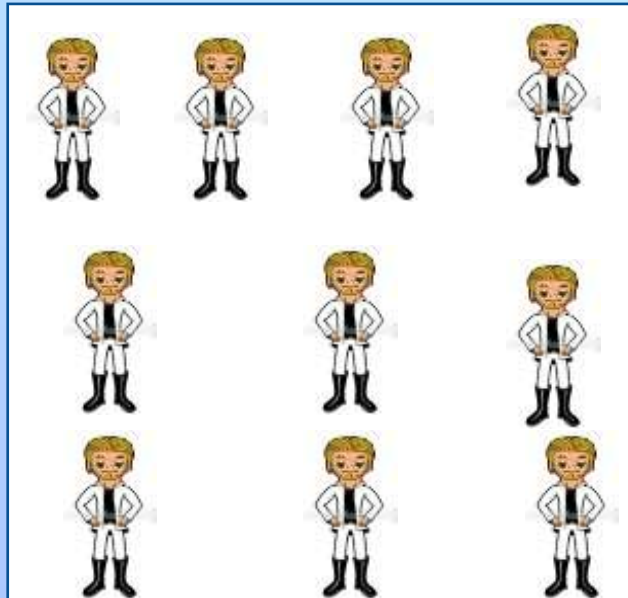
Patient Safety
Raising the Floor

THE ARROW

Government

Regulators

Latent Failures

Hospital

Management

Operational
Staff

Work

Actions

Active Failures

Adverse Event
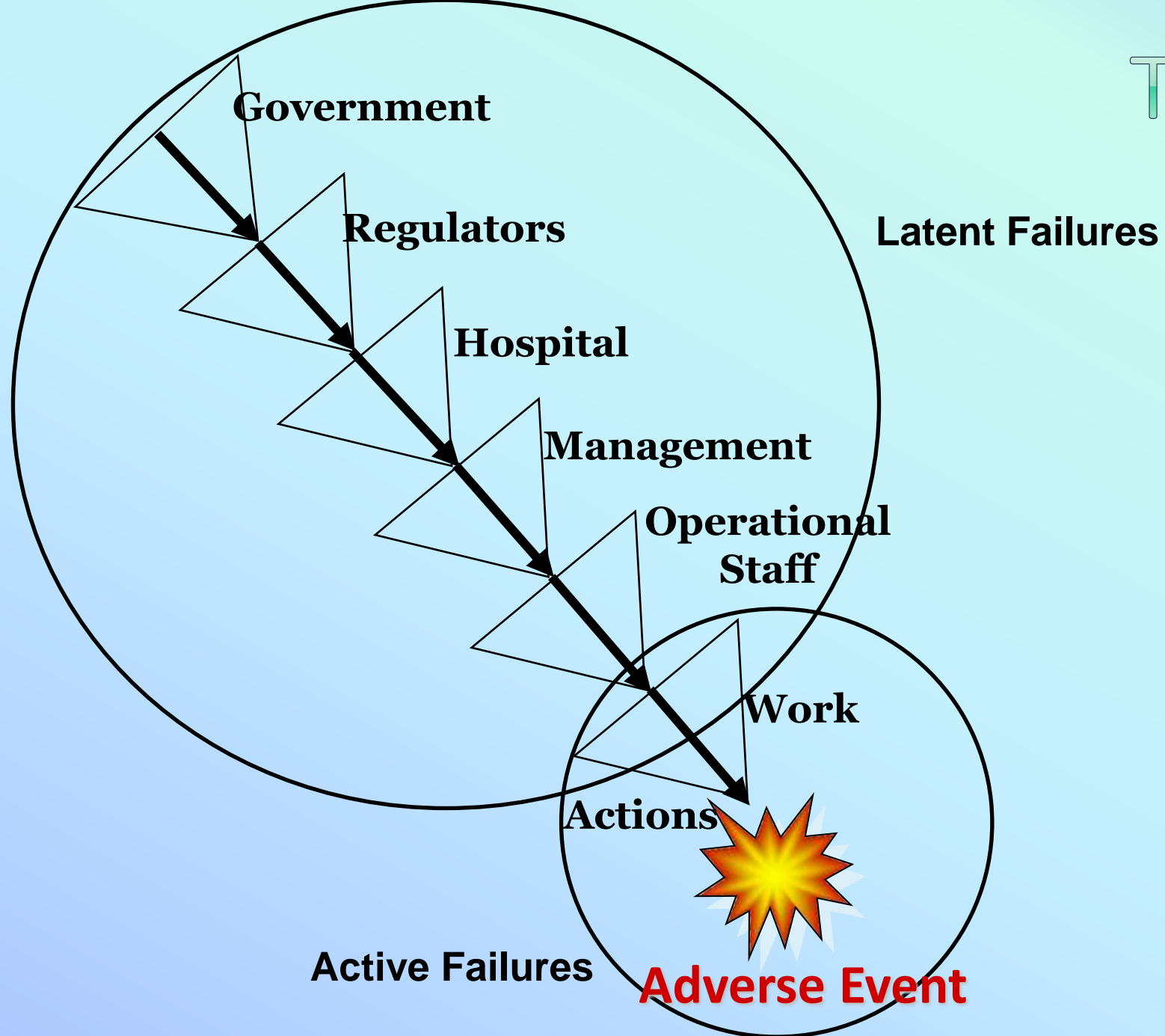
Patient Safety Systems

Some holes due to active failures

Other holes due to latent conditions

HAZARDS
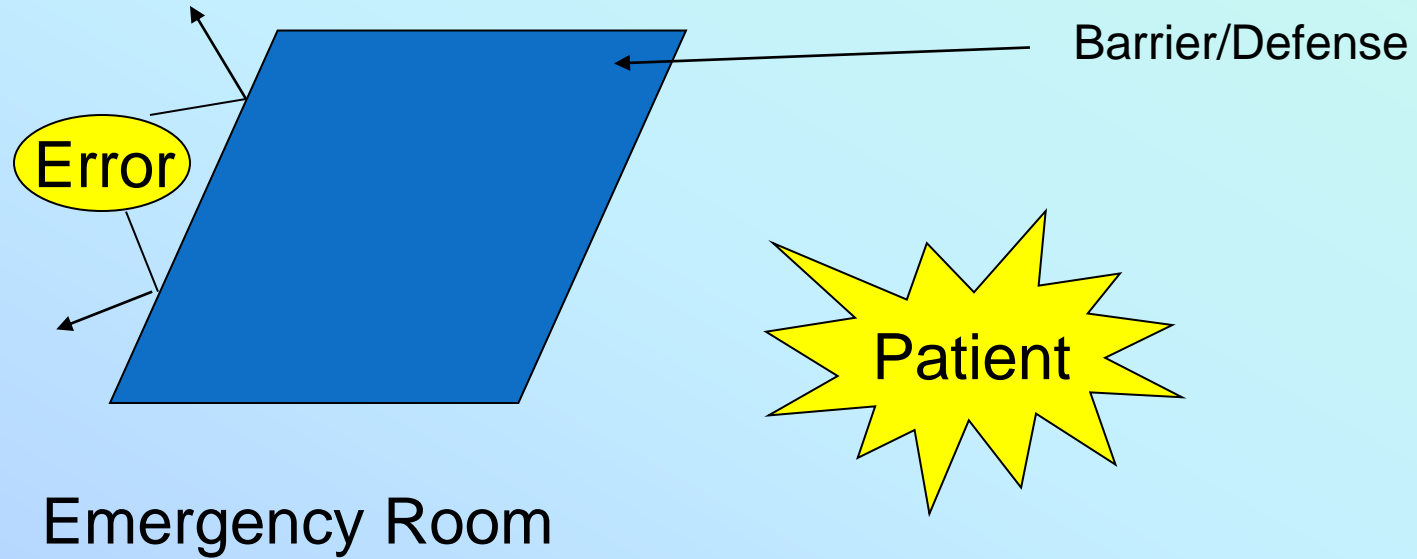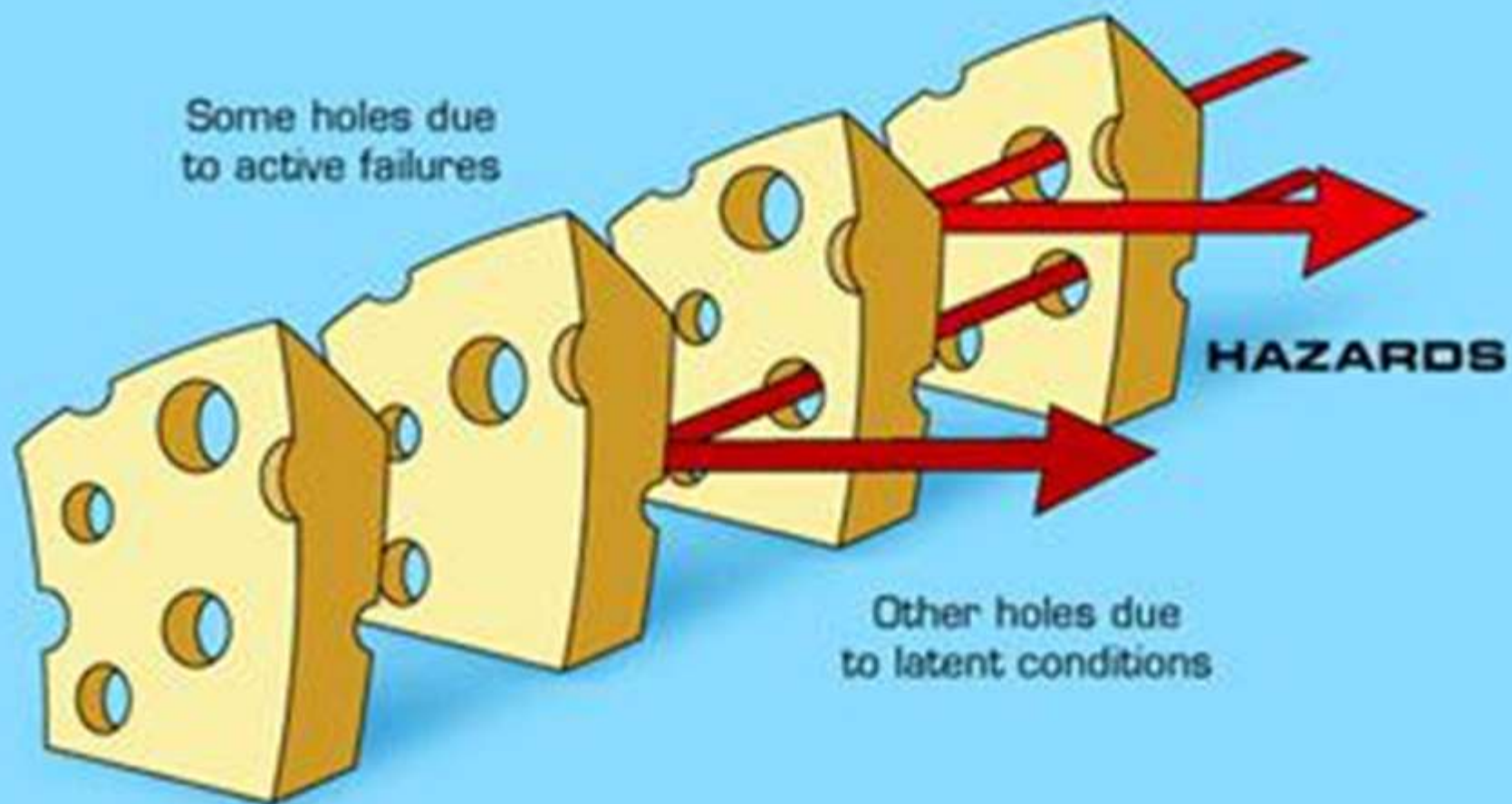
SUCCESSIVE LAYERS OF DEFENSES
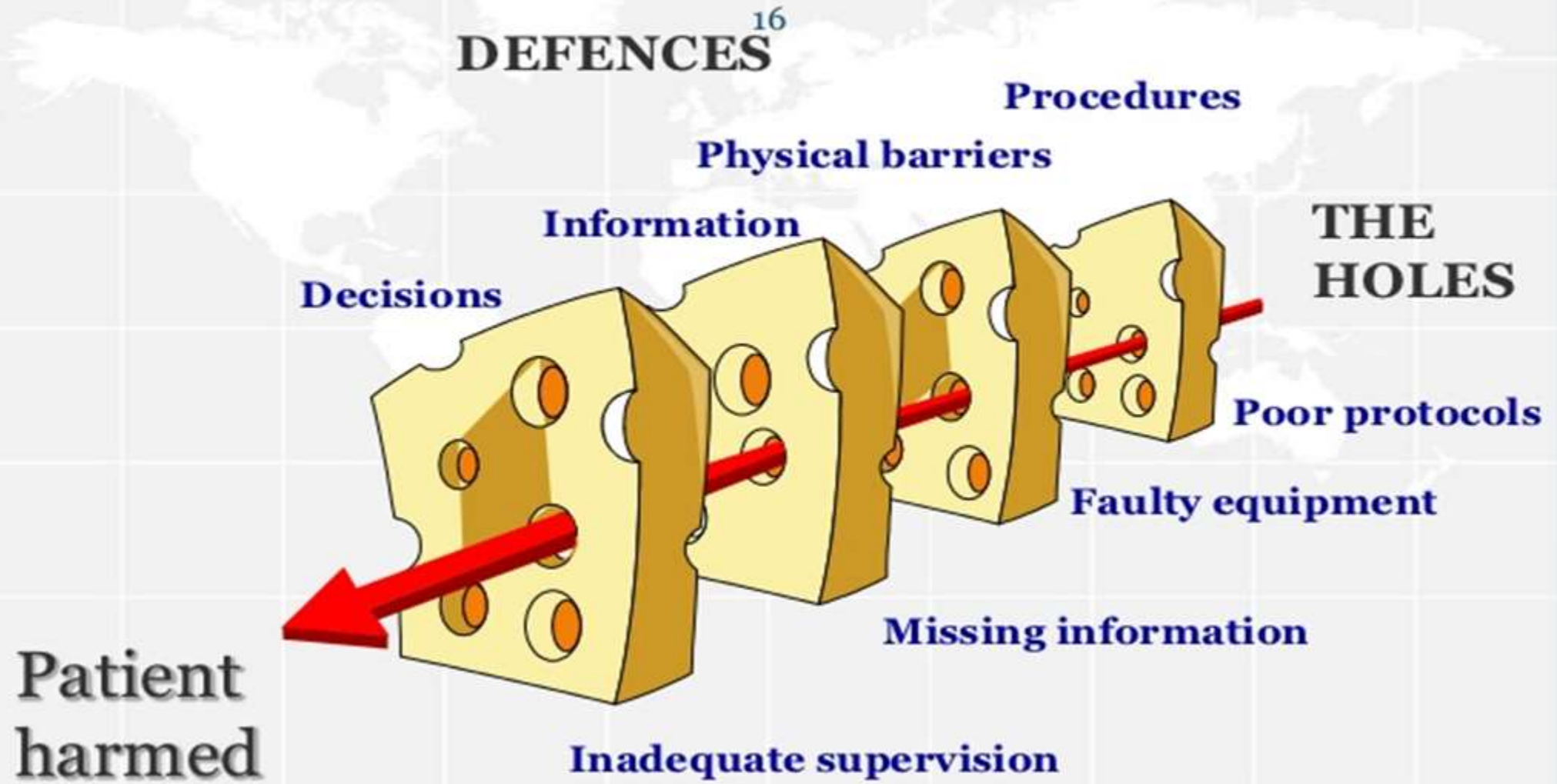
Types of Errors

System Errors (Latent)

- Heavy workload/Fatigue

- Incomplete or unwritten policies

- Inadequate training or supervision

- Inadequate maintenance of equipment/buildings

- Communication

Human Mistakes (Active)

- Action slips or failures (e.g. picking up the wrong syringe)

- Cognitive failures (e.g. memory lapses, mistakes through misreading a situation)

- Violations (i.e. deviation from standard procedures; e.g work-arounds)

DeLisa JA. Physiatry: medical errors, patient safety, patient injury, and quality of care. *Am J Phys Med Rehabil.* 2004(Aug);83(8):575-583

Types of Medical Errors

Medication errors: Errors can occur at any point in the medication use chain ordering stage, transcribing stage, dispensing stage or administration stage. A study in US showed that of these errors ordering stage (56%) and administration stage (34%) constitutes the most.

Surgical errors: Patient safety issues in surgery include those common to other fields (e.g.,) medication errors, nosocomial infections, communication mishaps), but also several specific to surgery (e.g., wrong-site surgery, retained sponges and instruments).

Diagnostic errors: Despite advances in laboratory testing, clinical imaging, and information technology, diagnostic errors remain commonplace. Clinicians' diagnostic and therapeutic actions are influenced by both patient-related and clinician-related (e.g., past experience) factors.

Human factors and errors at the person-machine interface: Human Factors Engineering (HFE) is the applied science of systems design. It is concerned with the interplay of humans, machines and their work environment. Thoughtful applications of HFE principles can help prevent errors are the person-machine interface.

Transition and Handoff Errors: Errors at the time of transitions (also known as handoff errors) are among the most common errors in healthcare. Handoffs can be site-to-site (eg., transferring a patient from primary care hospital to a secondary care hospital or vice versa) or person-to-person (eg. One Nursing Officer signing out to another when changing over the shifts). Therefore it is vital to hand over the patients either to a site or to a person with all possible information.

Teamwork work and communication errors: The provision if high quality, safe healthcare is increasingly a team sport. Well functioning teams are characterized by appropriate authority gradients and hierarchies that don't stifle the free flow of information. As long as effective teamwork and communication strategies are employed, the patient safety will not be compromised. High functioning teams use strategies such as effective introductions, debriefings and sharing their knowledge and experiences on patient care.

Hospital Acquired Infections – Recently infection control activities have been characterized by many as a subset of patient safety, implying that many healthcare associated infections are caused by medical errors (failure to adhere to evidence-based prevention strategies). The new field of patient safety can learn much from the older fields of hospital epidemiology and infection control – particularly, the use of standardized definitions, the importance of data collection and analysis, and the key role of professionals to monitor safety problems and implement safe practices.

Other complications of healthcare - There are several other complications of healthcare under the patient safety umbrella. These include pressure ulcers, patient falls and Venous Thromboembolism (VTE).

Culture – The Content for Team Success

Culture is the compass, team members use to guide their behaviors, attitudes, & perceptions on the job.

- What will I get praised for?
- What will I get reprimanded for?
- What is the "right" thing to do?

Culture is Complex

Resources allocation practices

Communication Patterns & Languages

Error detection & Correction Systems

Safety Culture

Teamwork Processes

Feedback, reward & Corrections Systems

Formal and informal Leadership

Schein, 2010
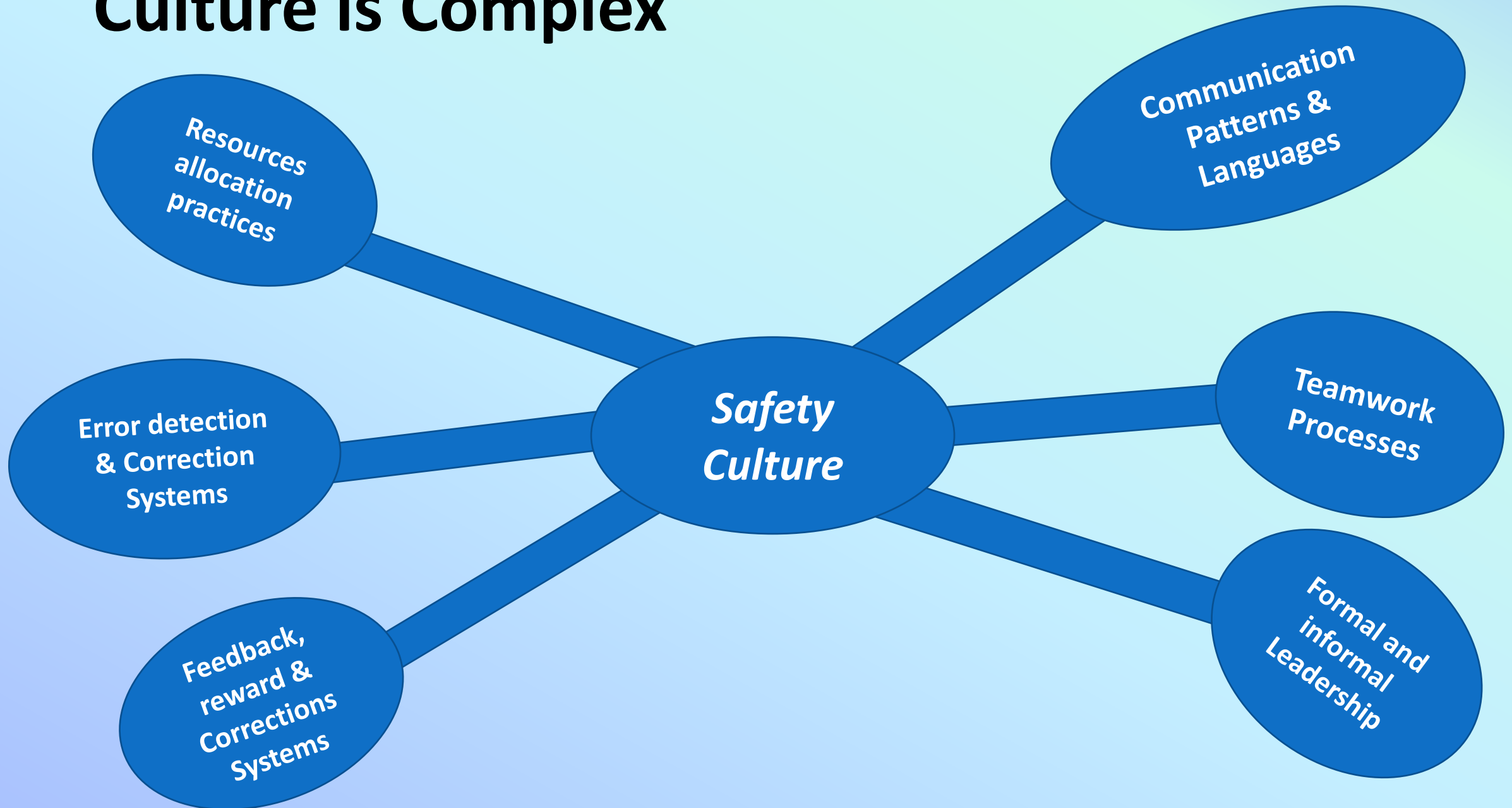
Just Culture – Where is the Balance?

Name
Shame
Blame

Amnesty

Blame – Free

It's the system's fault. We cannot hold the provider accountable

Punitive

It's the provider's fault

Types of behaviors and responses

Behaviour	**Human Error**	**At Risk Behavior**	**Reckless Behavior**
Intent	**Product of our current system design**	**Unintentional risk – taking**	**Intentional risk taking**
Manage by….	Manage through changes in: • Processes • Procedures • Training • Design • Environment	**Manage through:** • **Removing incentives for at-risk behaviors** • **Creating incentives for healthy behavior** • **Increasing situational awareness**	**Manage through:** • **Remedial Action** • **Disciplinary action**
Overall response	**Console**	**Coach**	**Discipline**

Intentions matter and should drive our responses

Marx, 2007

THE EVOLUTION OF SAFETY CULTURE

Generative
Safety is how we do business round here – safety is inherent part of the business

Proactive
Workforce involvement starts. We work on the problems that we still find

Calculative
Safety is driven by Mx systems with collection & analysis of data. Primarily driven by top Mx. rather than looked by the workforce

Reactive
Org. Start to take safety seriously but there is only action after incidents

Pathological
Who cares as long as we are not caught

Leadership in Patient Safety Desired Roles

Willing to meet monthly (Minimum)

Participates in executive rounds

Member of the patient safety & Quality Team

Reviews safety data summaries

Supports Adaptive Efforts

Ensures team has resources to reduce risks

Supports technical efforts

Collaborates with team on solutions

More Effective Communications

Handoffs

On Average, last 35 seconds

0 : 35

22% Handoff Communication Failures

- Over 1/5 include omissions or inaccurate information
- Most do not include questions from handoff recipients
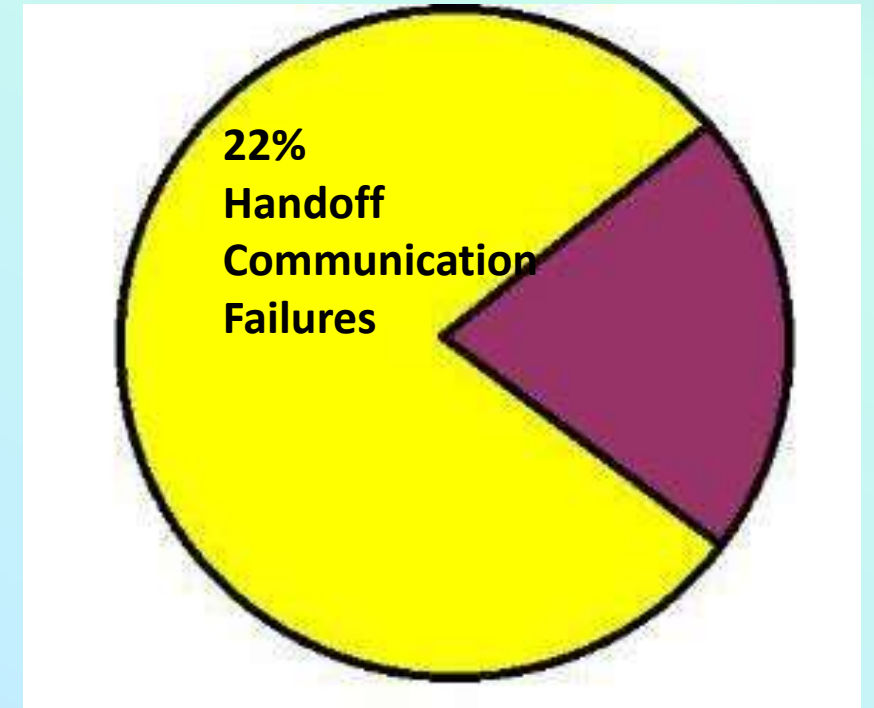
Chang et al. 2010: Horwitz, et al 2009

Teams drive success in safety work

Science of Safety

TEAMS!

Proactively Seeking different views

Respecting the value we each bring

Continuously focusing on teamwork

Situation Awareness   –   STEP Approach

Status
of the patient

Team
Members

Environment

- Patient history
- Vital Signs
- Medications
- Physical Exam
- Plan of care
- Psychosocial condition

Progress
towards
goal

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HOSPITAL

EMERGENCY

Situation Awareness   –   STEP Approach

Status
of the patient

Team
Members

Environment

- Fatigue
- Workforce
- Task performance
- Skill level
- Stress level

Progress
towards
goal

illustrations-of.com   #1121133

HOSPITAL

EMERGENCY

Individual factors that predispose to error

- Limited memory capacity

- Further reduced by:
  - fatigue
  - stress
  - hunger
  - illness
  - language or cultural factors
  - hazardous attitudes

Don't forget ....

If you're
- **H** ungry
- **A** ngry
- **L** ate

  or

- **T** ired .....

H
A
L
T

A performance-shaping factors "checklist"

- **I**   Illness
- **M**   Medication
  - prescription, alcohol and others
- **S**   Stress
- **A**   Alcohol
- **F**   Fatigue
- **E**   Emotion

Am I safe to work today?

Jensen, 1987

Situation Awareness – STEP Approach

Status
of the patient

Team
Members

Environment

- Facility Information
- Administrative Information
- Human Resources
- Triage acuity
- Equipment

Progress towards goal

Situation Awareness   –   STEP Approach

Status
of the patient

Team
Members

Environment

Progress
towards
goal

- Status of team's patient(s)?
- Goal of Team?
- Actions completed?
- Actions that are needed?
- Plan still appropriate?

How to use event reporting data

Finding System Defects

Monitoring New Processes

Identifying good catches

Monitoring policy compliance

Monitoring policy effectiveness

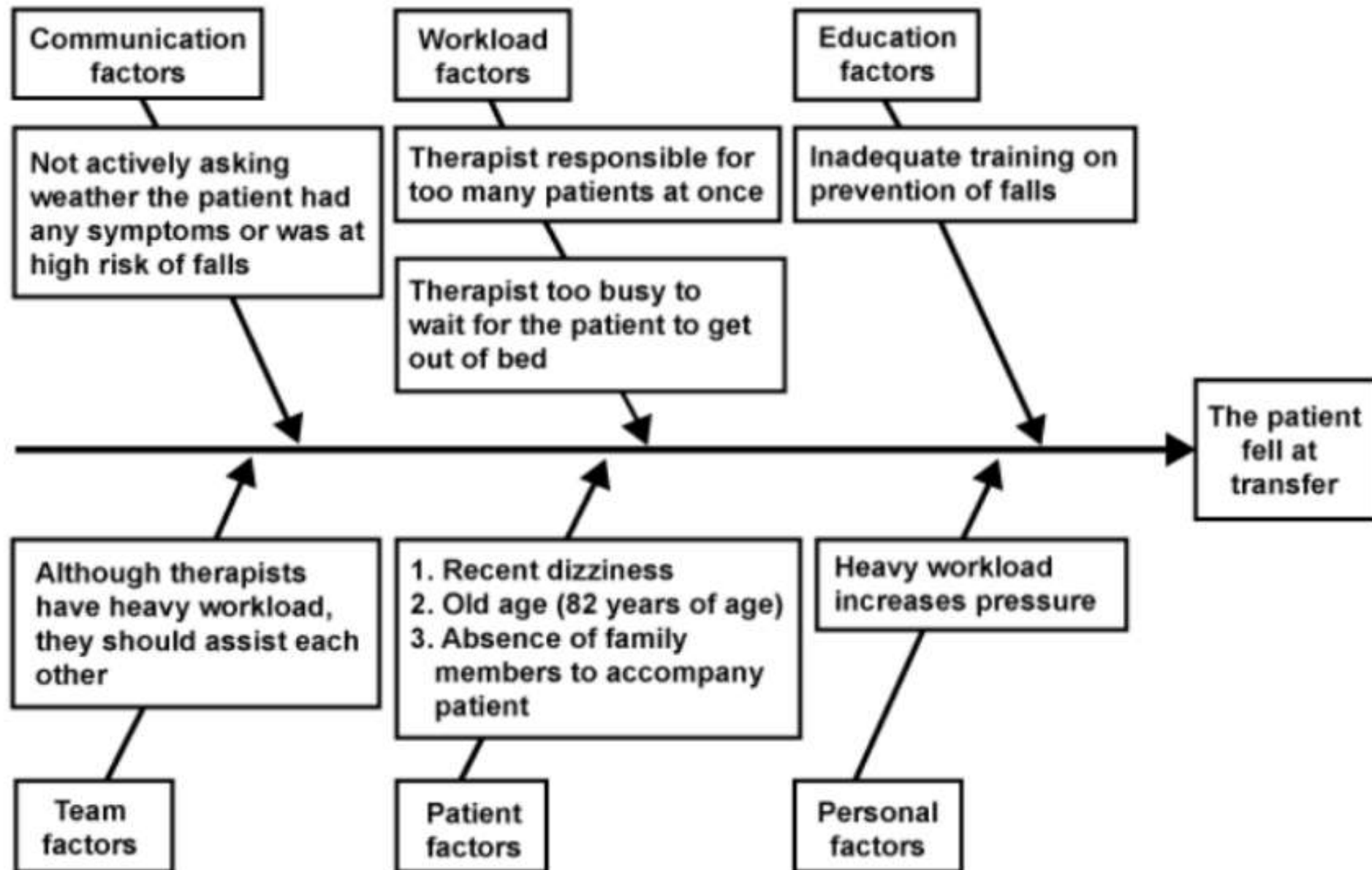Conducting deep dives

Trends after change

Root Cause Fishbone Diagram: Patient Fall

Communication factors

Not actively asking weather the patient had any symptoms or was at high risk of falls

Workload factors

Therapist responsible for too many patients at once

Therapist too busy to wait for the patient to get out of bed

Education factors

Inadequate training on prevention of falls

The patient fell at transfer

Although therapists have heavy workload, they should assist each other

1. Recent dizziness
2. Old age (82 years of age)
3. Absence of family members to accompany patient

Heavy workload increases pressure

Team factors

Patient factors

Personal factors

Control Plan

Y	X	Specification	Monitoring	Reaction Plan
Decrease Falls		Decrease falls by 50%		
	Lack of protocol	100% protocol roll out in all units	Monthly	Process will reinforce Protocol roll out in all units if < 100% for 2 consecutive months
	Lack of training	90% of units trained in new protocols	Monthly	HEO will ensure all staff educated
	Lack of routine assessment	100% compliance with routine assessment	Weekly	

Implementation – 4 E's

Engage

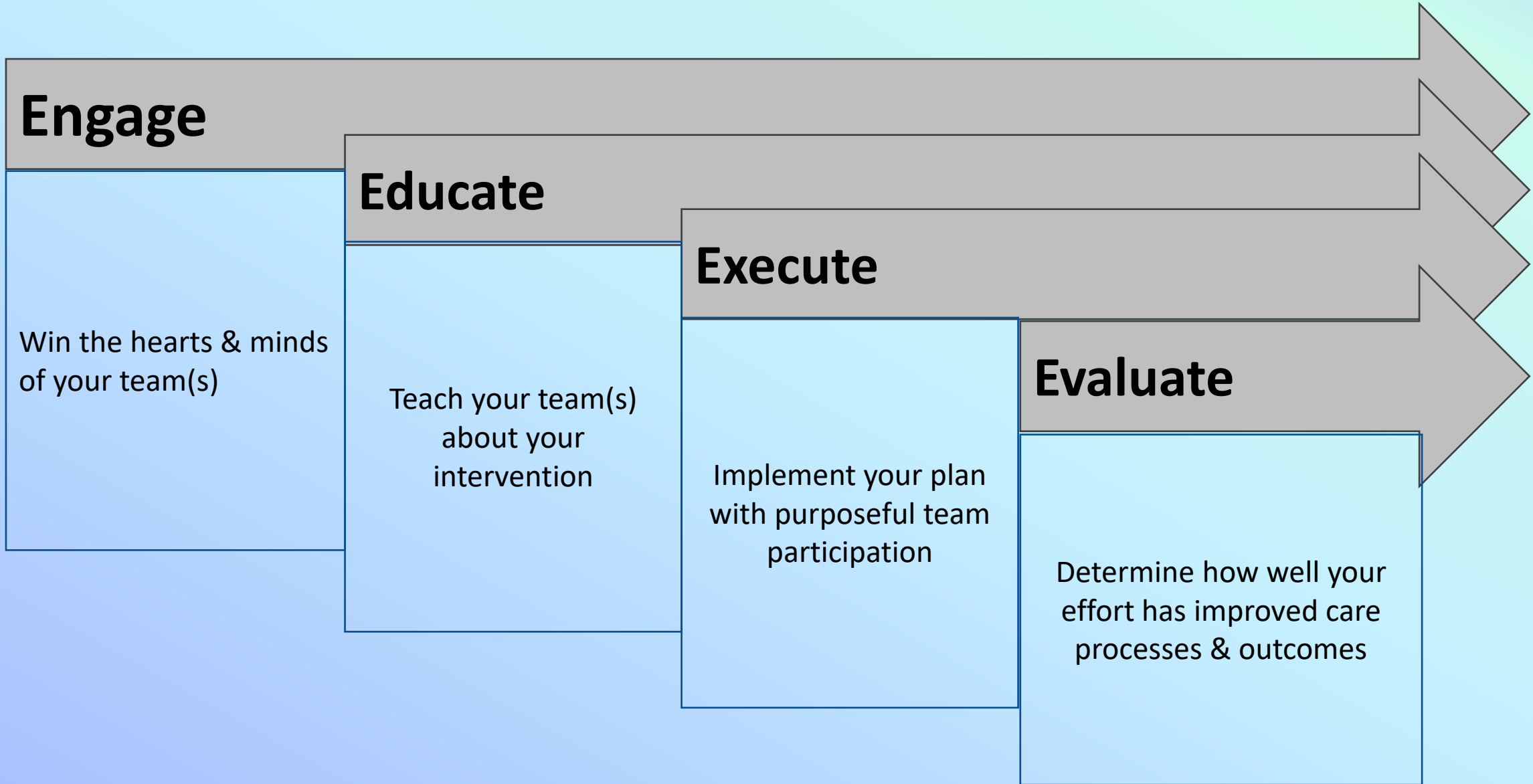Win the hearts & minds of your team(s)

Educate

Teach your team(s) about your intervention

Execute

Implement your plan with purposeful team participation

Evaluate

Determine how well your effort has improved care processes & outcomes

'Mantra' of Quality Improvement

Don't Give up!!!
the beginning is
the always hardest

Thank You