PATIENT SAFETY

ATTENTION TO DEVICES & EQUIPMENT

Dr. Uma Nambiar

MS, MCh, MBA

CEO, SL Raheja Hospital (Fortis associate)

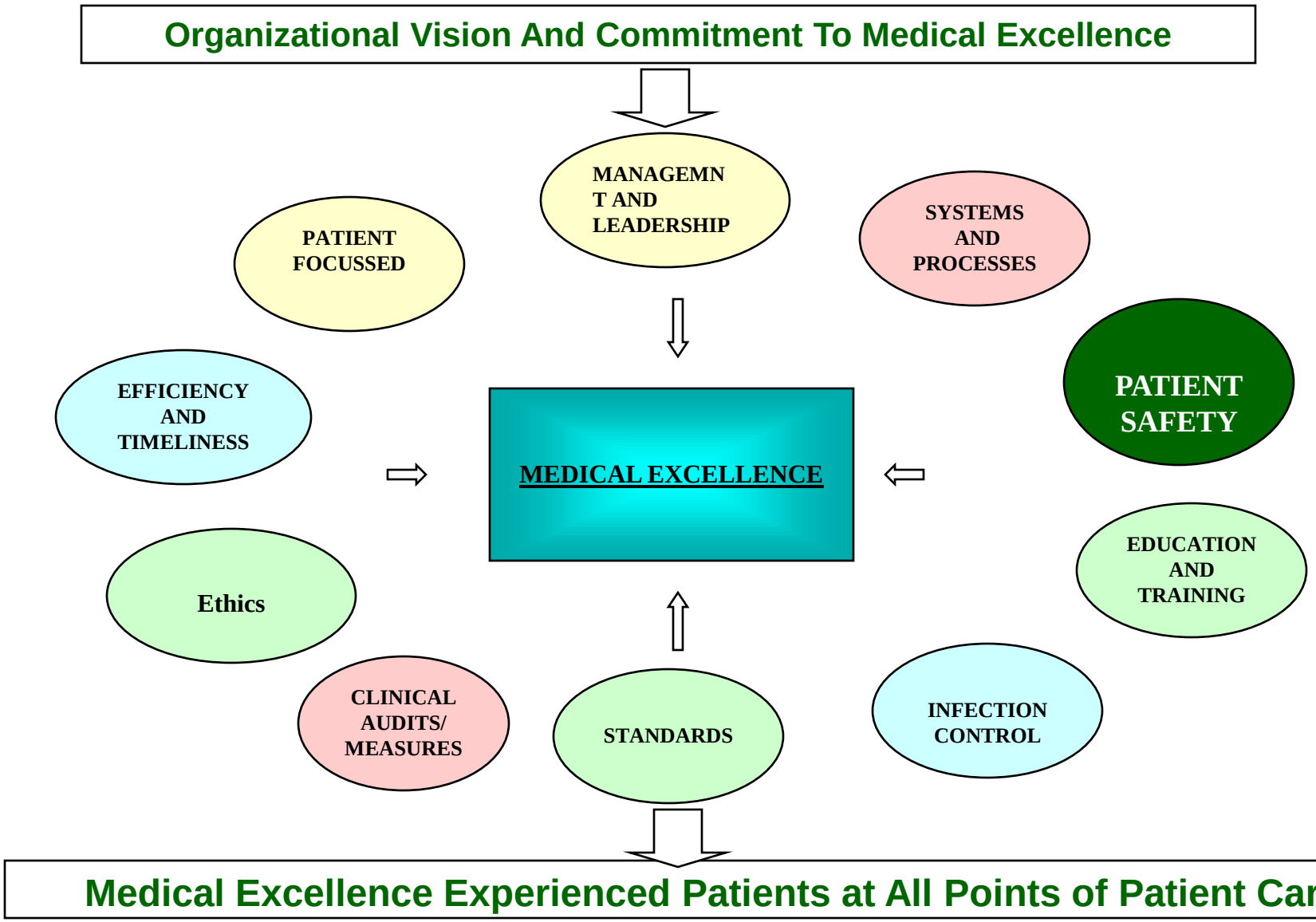
&

Director, Mumbai Zone , Fortis Healthcare Ltd

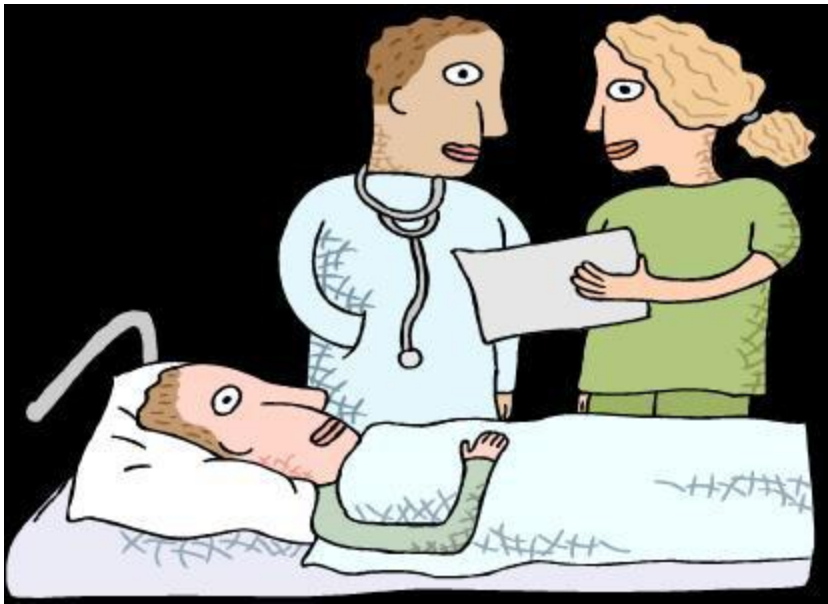
Mumbai

Fortis

PRIMUM NON NOCERE


Organizational Vision And Commitment To Medical Excellence
MANAGEMN T AND LEADERSHIP
PATIENT FOCUSSED
SYSTEMS AND PROCESSES
EFFICIENCY AND TIMELINESS
PATIENT SAFETY
MEDICAL EXCELLENCE
Ethics
EDUCATION AND TRAINING
CLINICAL AUDITS/ MEASURES
STANDARDS
INFECTION CONTROL
Medical Excellence Experienced Patients at All Points of Patient Care

Why Worry About Patient Safety ?




Never Events


30 Safe Practices

Deaths Per 100 Million Hours

• Being pregnant	1
• Traveling by train	5
• Working at home	8
• Working in agriculture	10
• Being in traffic	50
• Working in construction	67
• Flying on a commercial airplane	100
• Being hospitalized	2000

Product or Device Events

Patient death or serious disability associated with use of contaminated drugs, devices or biologics provided by the facility

Patient death or serious disability from patient care device in which the device is used or functions other than as intended

Patient death or serious disability from intravascular air embolism

Environmental Events

Patient death or serious disability associated with an electric shock

Environmental Challenges

- Rapidly changing environment
  - Affordability
  - Accountability
  - Challenges of Cost control
  - 'Tight' business models
  - Changing demands of patients

Env. Changes ..contd..

- Accreditation of healthcare systems(NABH, JCI)
- Fire safety norms (NFPA: USA)
- Rapidly changing technology
- Easy availability and affordability of expensive technology
- Evolving knowledge wrt HFE
- Pressure: latest and the best: short learning curves

Why Patient Safety?

Patient satisfaction
Reduced ALOS
Reduced wastes.. lean organisation
Better ARPOB
Higher profits
Higher ability for further investment
Improvement of facilities
Better patient care…
Patient Delight…

Patient Life Cycle & Patient safety

Patient Safety	Patient Treatment	Patient Comfort

• Information Safety
• Communication Safety
• Medication Safety
• Diagnostic Safety
• Treatment Safety
• Environmental Safety
	• Diagnosis
	• Investigation
	• Treatment
	  • Medical
	  • Surgical
	• Outcome
		• Admission
		• Discharge
		• Housekeeping
		• F & B
		• Others

Patient safety is the sustained, proactive process of identifying, avoiding and rapidly resolving errors, omissions, mishaps and miscommunications that could affect a patient's healing, health or well-being at any point, at any time, in any care setting.

Domains	Objective : Six International patient safety goals
Information Safety	Identify patients correctly – Ensure availability of secure, up-to-date, complete and **accurate medical records** for every patient.
Communication Safety	Improve effective communication - Sharing of relevant, real-time information to all authorized, interested parties with particular focus on the need to improve hand-off communications.
Medication Safety	Improve safety of high alert medications - Dockside-to-bedside medication administration strategy, designed to ensure the "five-Rights"- Right patient, Right medication, **Right dose**, Right route and Right time.
Diagnostic Safety	Eliminate wrong site, wrong patient, wrong procedure surgery - Gathering and interpretation of data that supports optimal patient care planning and treatment.
Treatment Safety	Reduce the risk of Healthcare acquired infections - Accurate capture, recording, executing & sharing of data to support patient safety.
Environmental Safety	Reduce the risk of patient harm resulting from fall or any other injuries - Safety of patient's environment, from staff management and **equipment tracking**.

HOW?

- Correct Patient Identification
- Effective Communications
- Eliminate Medication Errors
- Eliminate wrong site, wrong patient & wrong procedure
- Control over Hospital-Associated Infections (HAIs)
- Prevent Falls
- Prevent Adverse Events

Limited address in IPSG

- Quality of manpower
- Device safety
- Accountability of clinical care
- Documentation
- Culture of medical quality

Fortis

Health care system:

Infrastructure: equipments **40: 60**

Man: Tool **50:50**

Challenges:

- Cost over quality
- Skilled Manpower to operate, repair/ maintain these equipments is not available in all settings
- Medical device safety : norms and knowledge
  application in practice
  HFE

Evolution….
The list is adding up like never before..

EQUIPMENT SAFTEY

Operator training
Electrical safety
Mechanical safety
Other safety parameters
Performance assurance
Using correct disposables
Cleaning/disinfection/ sterilisation prior to reuse
Acquiring suitable equipment
Initial inspection on delivery for manufacturing defects
Maintenance
Handling & operation of equipment
SOPs to follow when an accident has occurred

CE: *conformite europeenne*

single/ double use

concomitant use

Concerns…

- Electrical safety:
  - Gross shock
  - Micro shock

- Excessive temperature, fire /others

Electrical safety

international guidelines/standards IEC 60601..
maintenance in hospitals .. IEC 62353/ IS 8607

Mandatory reproting of accidents related to devices (must in UK)

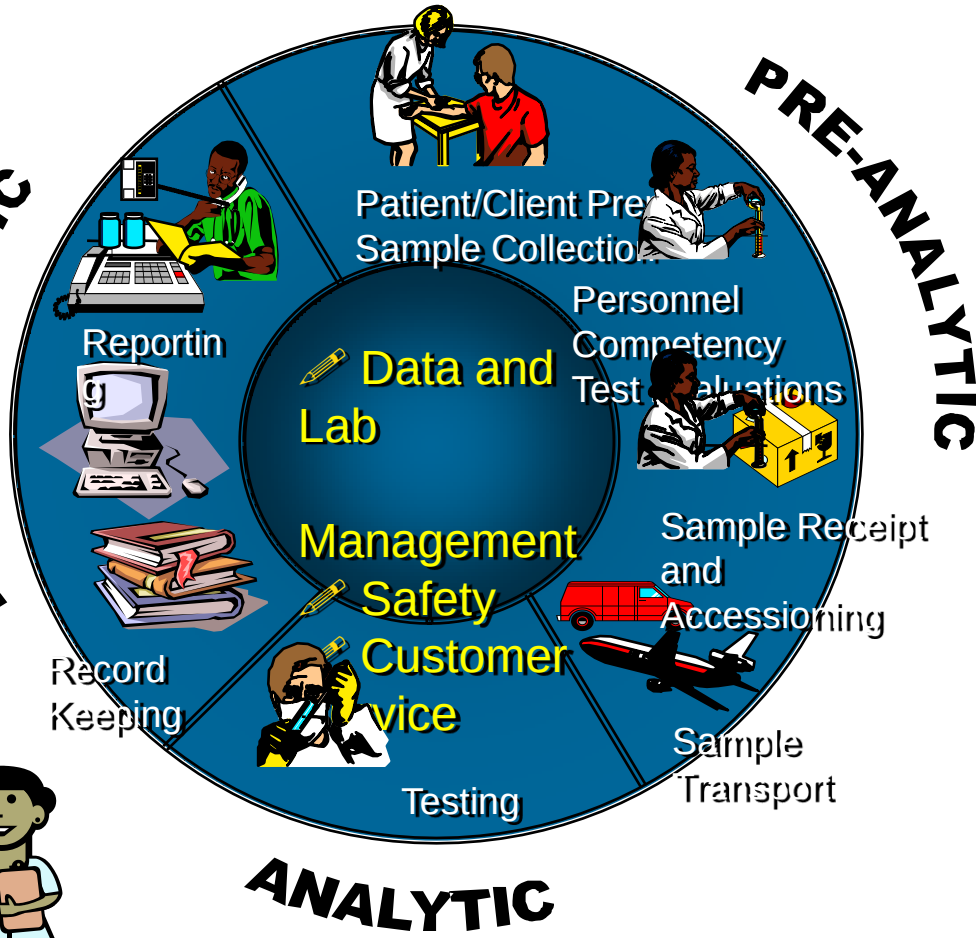
Concerns…

- Mechanical hazards
- Radiation hazards
- Explosion

Concerns…

- Infection

Concerns: Accuracy & Patient Safety



Concerns: Accuracy & Patient Safety

Documentation & Reporting

- standard formats
- Mandatory reporting
- Knowledge sharing limited

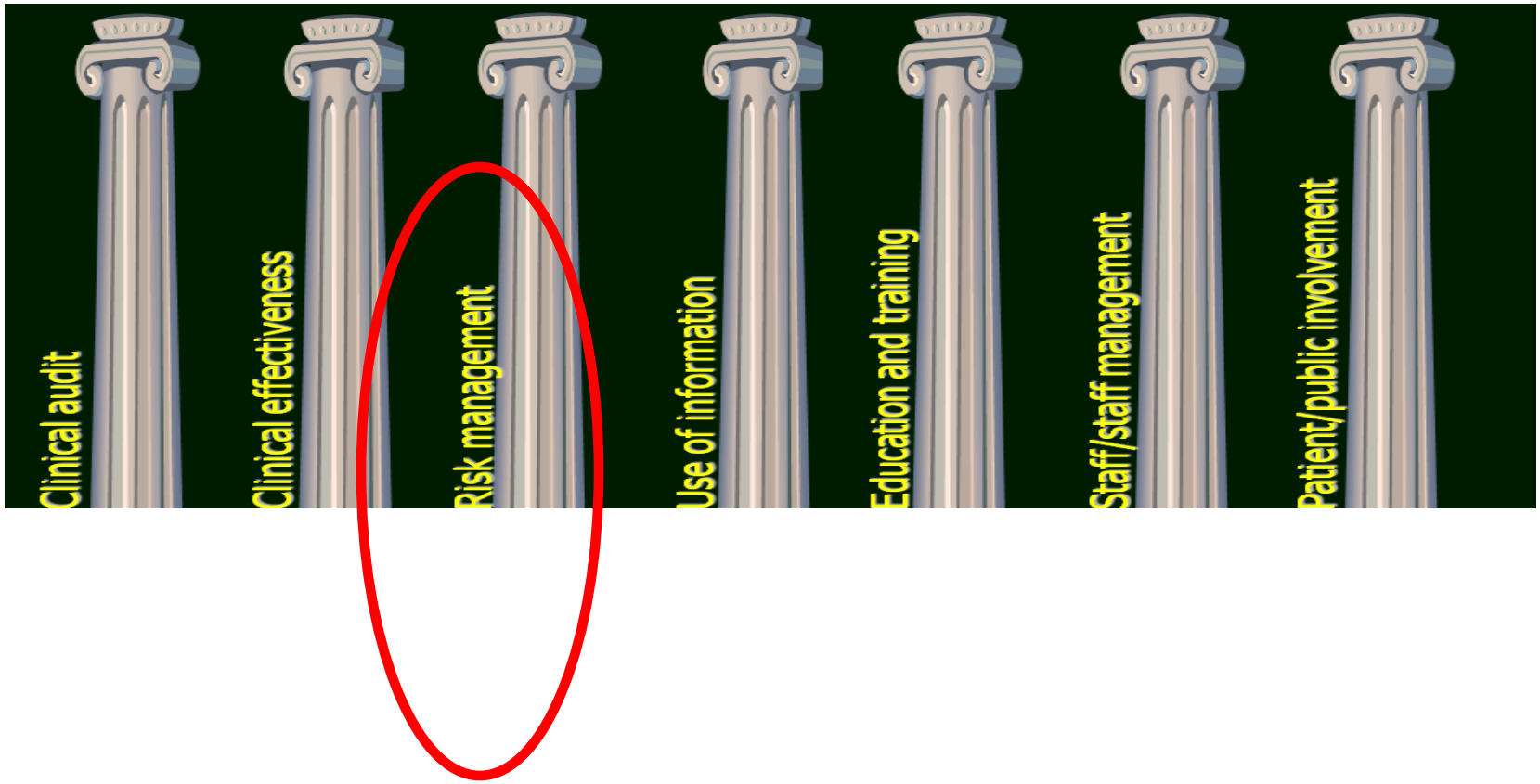
Clinical care: accountability

- Determination of standards of care
- Clinical protocols and care pathways
- Lack of Outcome based approach: generic
  specific

Culture of medical quality

- Improved patient safety and outcomes
- Clinical governance: framework to assure & improve quality of clinical outcomes (cornerstone of clinical excellence)

The 7 pillars of Clinical Governance



Based on NHS

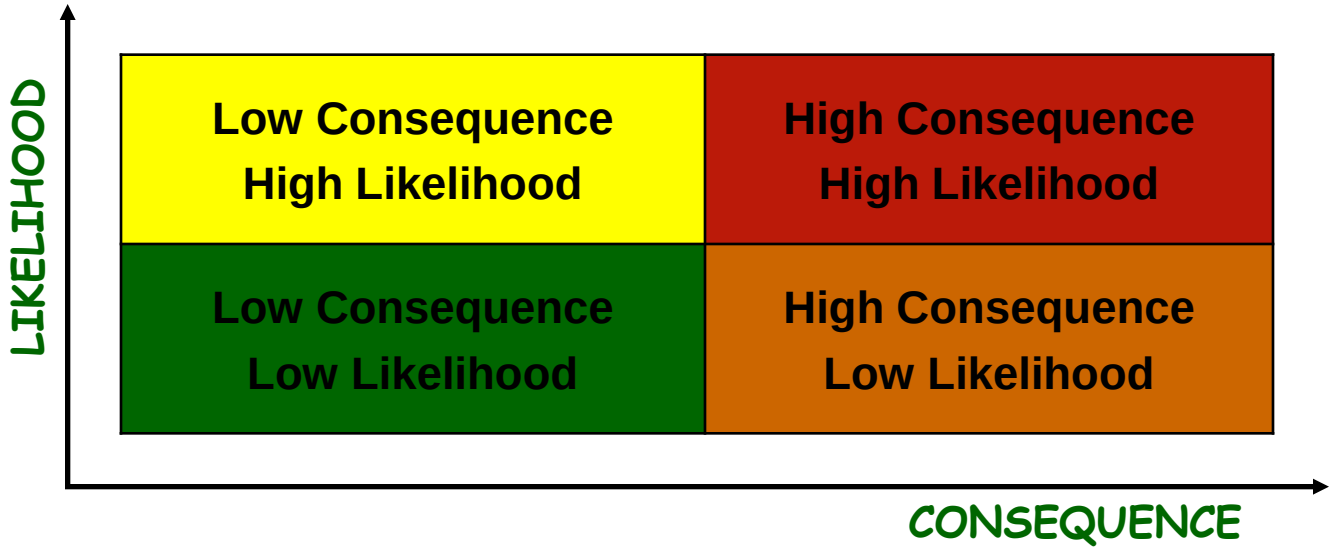
Proactive Risk Management

RISK MANAGEMENT FRAMEWORK

Device safety, Infection Hazard & Patient Safety

Components of Risk

Risk is measured in terms of likelihood and consequence or impact (e.g. financial loss, fatality, reputation).



KEY RISKS PROFILE
Hospital Business

No	Risk Identified	Risk Analysis		
		Likelihood	Consequence	Risk Level
1	Risk of unplanned prolonged breakdown of critical medical equipment	Moderate	High	Major
2	Risk of malpractice and litigation	Unlikely	Extreme	Major
3	Risk of patient safety incident (e.g. miscommunication during patient transfer/handover, misidentification of patient, wrong dispensing of medicine, wrong site surgery, slips and trips, etc.)	Rare	Extreme	Major
4	Risk of hospital acquired infection (HAI)	Rare	Extreme	Major
5	Risk of wrong babies given to parents	Rare	Extreme	Major
6	Risk of non-compliance with regulatory requirements	Rare	Extreme	Major
7	Risk of fire	Rare	Extreme	Major

What needs to be done…

- Active involvement of BME/ Clinical Engg.
  - Reporting relationships/ Job Descriptions
  - Eliminate space constraints
  - Role in planning and purchase- CAPEX ownership
  - Resource optimisation
  - Role in local improvisation/ repair
  - Preventive maintenance, safety checks
  - Statutory compliances

- More stringent compliance criteria by the accreditation body
  - Structure
  - Scope of work
  - Job content

- Trained Manpower
- Development of criteria and recommendations for device and equipment safety

  – Workshop: ACEW 2010 (Nov 28th), Pune

Fortis


Thank
You!