Patient Safety on the Day Surgery Pathway

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“When I was a young surgeon.....”

Patient Safety Timeline

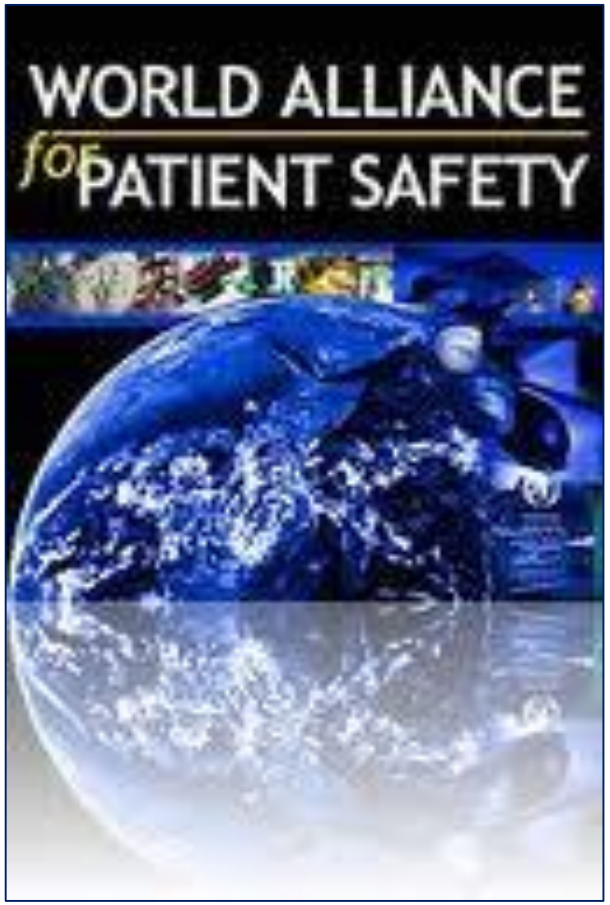
1990's Many countries report large numbers of patients harmed and killed by medical errors

2002 55th World Health assembly Resolution WHA 55.18

"To strengthen the safety of healthcare & monitoring systems"

2004 World Alliance for Patient Safety

"First do no harm"

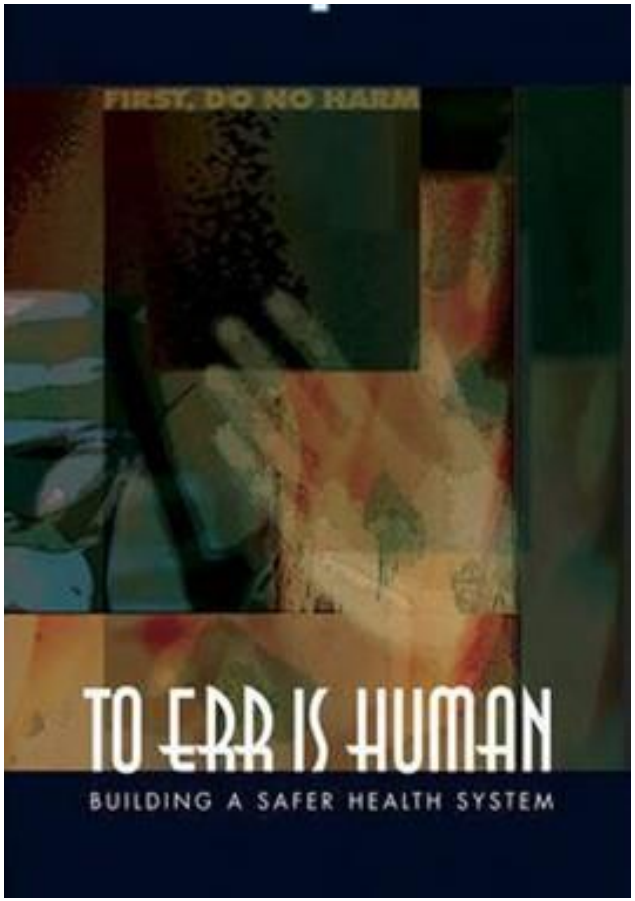


Prevalence of Adverse Healthcare Events

Preventable deaths

- 70,000 medical errors
- 7,000 medication errors

Koln LT,Corrigan JM,Donaldson MS
To err is human-Building a safer health system.
National Academies Press,Washington DC. 2000



Patient Risk in Medicine

Medical Care

- Underlying Condition
- Treatment

Patient Safety Incidents

- Preventable events or circumstances that could have, or did, result in unnecessary harm to the patient

Patient Safety Incidents

Adverse Event

Harm to the patient

Near Miss

Could have harmed but was not

No-harm event

No harm to the patient

Surgical Procedures

Life – Saving Surgery

Acceptable Risk

Life – Enhancing Surgery

No Risk

Safety

Nuclear

Aviation

Is Ambulatory Surgery safe ?

Yes…….and No !!!!

The risks may be less but are always present

Factors contributing to adverse events

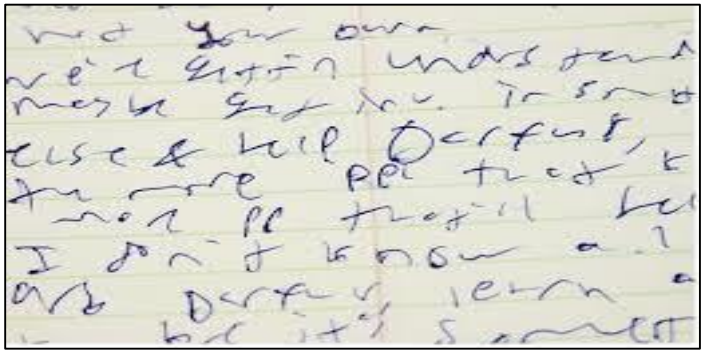
- Medical complexity
- System failures
- Human error

Medical Complexity

- Technology
- Drugs
- Environment

System Failures

- Poor communication
- Staffing levels
- Drug similarities
- Equipment failure



Human Error

Complete blood count	Result	Reference values
WBC	7.36 × 10.e9/L	(4-11)
RBC	5.12 ×10.e12	(4.2-5.5)
HGB	15.4 g/dl	(12-16)
HCT	45%	(37-47)
MCV	87.9 fl	(80-94)
MCH	30 pg	(27-32)
MCHC	34 g/dl	(32-36)
RDW	11.4 %	(11.5-14.5)
Platelet count	183 × 10.e9/L	(140-450)
MPV	9.43 fl	(7.2-11.1)

WBC: White blood cells, RBC: Red blood cells, HGB: Hemoglobin, HCT: Hematocrit, MCV: Mean corpuscular volume, MCH: Mean corpuscular hemoglobin, MCHC: Mean corpuscular hemoglobin concentration, RDW: Red cell distribution width, MPV: Mean plasma volume.

- Patient assessment
- Interpretation of tests
- Performance
- Inadequate training
- Overwork
- Personal

General Anaesthestic Safety

Brain damage or Death

1 in 6795 to 1 in 200200

Lagasse RS Anesthesia Safety:Model or Myth
Anesthesiology 2010,97(6):1609-17

Cause

Aspiration

Asphyxiation

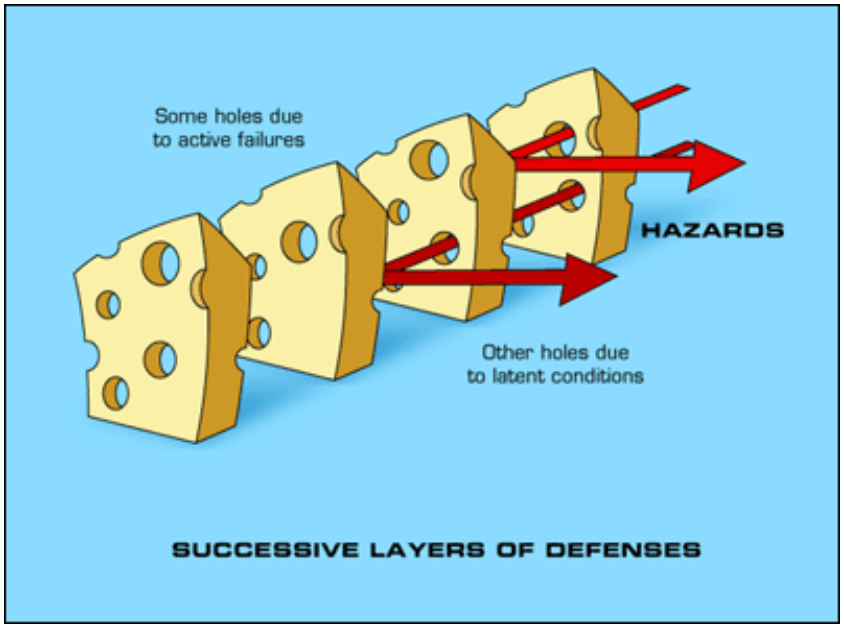
Anaphylaxis

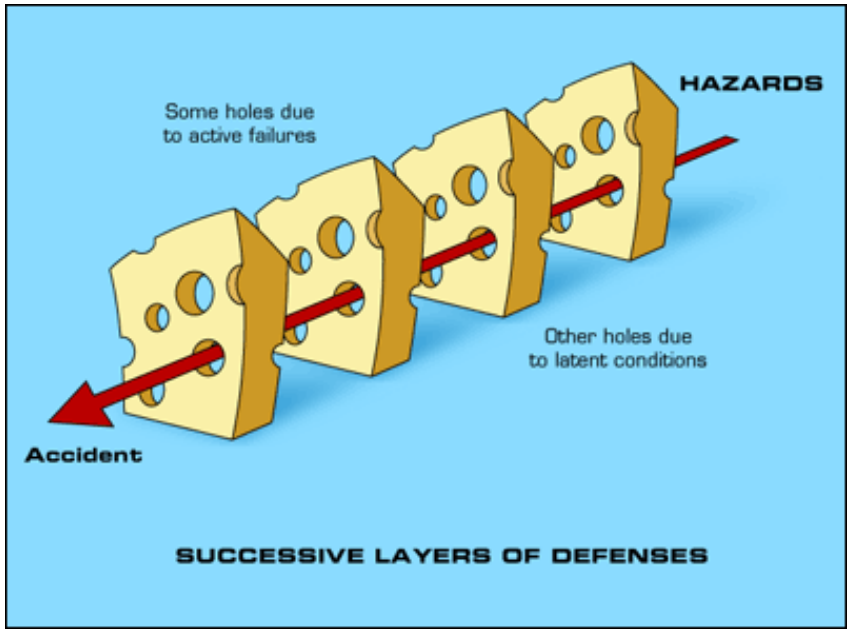
Due to

Equipment failure

Human error

Swiss Cheese Model of Accident Causation





" a trajectory of accident opportunity "

Strategies for Patient Safety

Supervision

Protocols

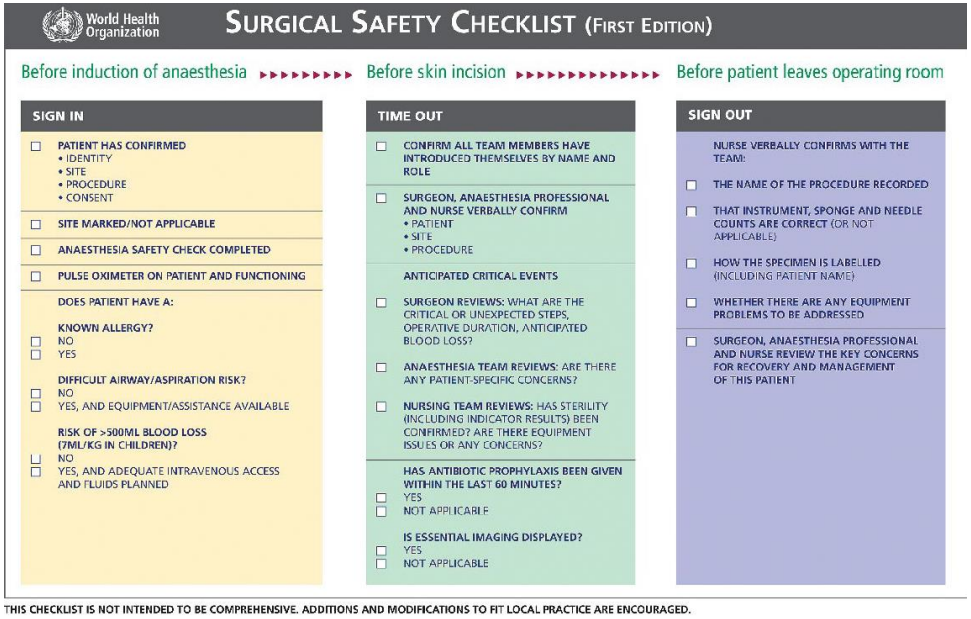
Guidelines

Handovers

Theatre briefings

Checklists

Situational awareness



World Health Organization

SURGICAL SAFETY CHECKLIST (FIRST EDITION)

Before induction of anaesthesia ▸▸▸▸▸▸▸▸▸ Before skin incision ▸▸▸▸▸▸▸▸▸▸▸▸▸▸ Before patient leaves operating room

SIGN IN

- ☐ PATIENT HAS CONFIRMED
  - IDENTITY
  - SITE
  - PROCEDURE
  - CONSENT
- ☐ SITE MARKED/NOT APPLICABLE
- ☐ ANAESTHESIA SAFETY CHECK COMPLETED
- ☐ PULSE OXIMETER ON PATIENT AND FUNCTIONING

DOES PATIENT HAVE A:

KNOWN ALLERGY?
- ☐ NO
- ☐ YES

DIFFICULT AIRWAY/ASPIRATION RISK?
- ☐ NO
- ☐ YES, AND EQUIPMENT/ASSISTANCE AVAILABLE

RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?
- ☐ NO
- ☐ YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

TIME OUT

- ☐ CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
- ☐ SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM
  - PATIENT
  - SITE
  - PROCEDURE

ANTICIPATED CRITICAL EVENTS

- ☐ SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
- ☐ ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
- ☐ NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?

HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?
- ☐ YES
- ☐ NOT APPLICABLE

IS ESSENTIAL IMAGING DISPLAYED?
- ☐ YES
- ☐ NOT APPLICABLE

SIGN OUT

NURSE VERBALLY CONFIRMS WITH THE TEAM:

- ☐ THE NAME OF THE PROCEDURE RECORDED
- ☐ THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)
- ☐ HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)
- ☐ WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED
- ☐ SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

Pre-assessment Pathway

- Patient selection
- Health screen
- Preassessment

Peri-operative Care

- Theatre Checklist
- Anaesthesia
- Surgery

Discharge Process

- Discharge Criteria
- Carer for Home
- Carer at Home

Never events 2015-16

Wrong site surgery

Wrong implant/prosthesis

Retained foreign object post-operation

Mis-administration of potassium-containing solutions

Wrong route administration of medication

Overdose of insulin due to abbreviations or incorrect device of Insulin

Overdose of methotrexate for non-cancer treatment

Overdose of midazolam during conscious sedation

Failure to install collapsible shower or curtain rails

Falls from unrestricted windows

Chest or neck entrapment in bedrails

Transfusion or transplantation of ABO-incompatible blood components or organs

Misplaced naso- or oro-gastric tubes

Scalding of patients

Second Victim

- Health care professional
- - distress
- - shame
- - guilt
- - fear
- - depression

Summary

- Changing attitude to patient safety
- Life-enhancing surgery on the ambulatory pathway
- Factors contributing to adverse events
- Strategies to enhance patient safety
- Situational awareness

Situational Awareness