King Khalid University Hospital
Department of Obstetrics & Gynecology
Course 482

Patient Safety Ethics & attitude in Ob/Gyn Practice

First, Do No Harm

“ Medicine used to be simple, ineffective & relatively safe. Now it is complex, effective & potentially dangerous”

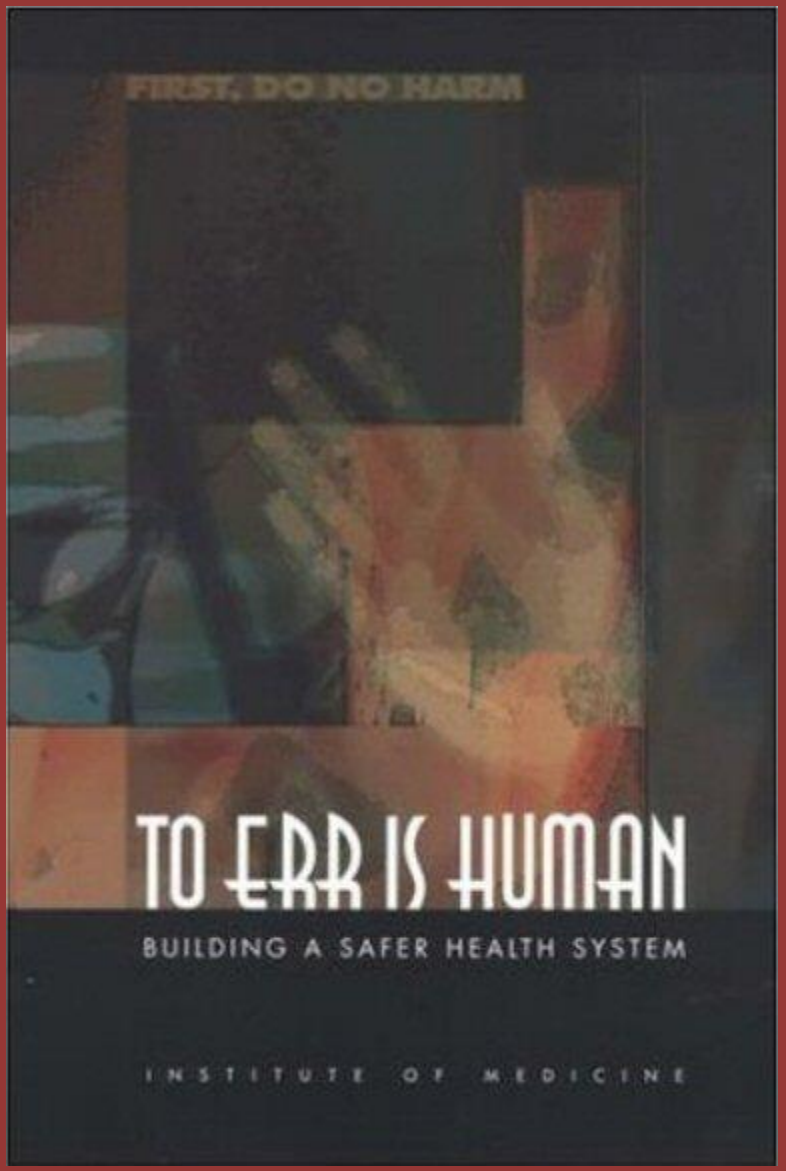
Sir. Cyril Chantler, University College London

Scope of Problem & History of Patient Safety

- 1999: IOM

  To Err is Human: Building a Safer Health Care System

- **44,000 - 98,000** Americans die each year from medical errors



November 1999

The NEW ENGLAND JOURNAL of MEDICINE

Perspective

MAY 25, 2006

Making Patient Safety the Centerpiece of Medical Liability Reform

Hillary Rodham Clinton and Barack Obama

May 25, 2006

Medical Error Theory

- Four factors contributing to medical errors:

  1- Human fallibility

  2- Complexity

  3- System deficiencies

  4- Vulnerability of defensive barriers

Medical Error Theory

1- Human fallibility

- " To err is human": mistakes are part of the human condition
- System changes to make it harder to do the wrong & easy to do the right thing

  A- Forcing functions

  B - Reminders @ the point of care

Medical Error Theory

- A- Forcing functions:

  - physical or process constraints that make errors difficult if not impossible

Medical Error Theory

1- Human fallibility

- " To err is human": mistakes are part of the human condition
- System changes to make it harder to do the wrong & easy to do the right thing

  A- Forcing functions

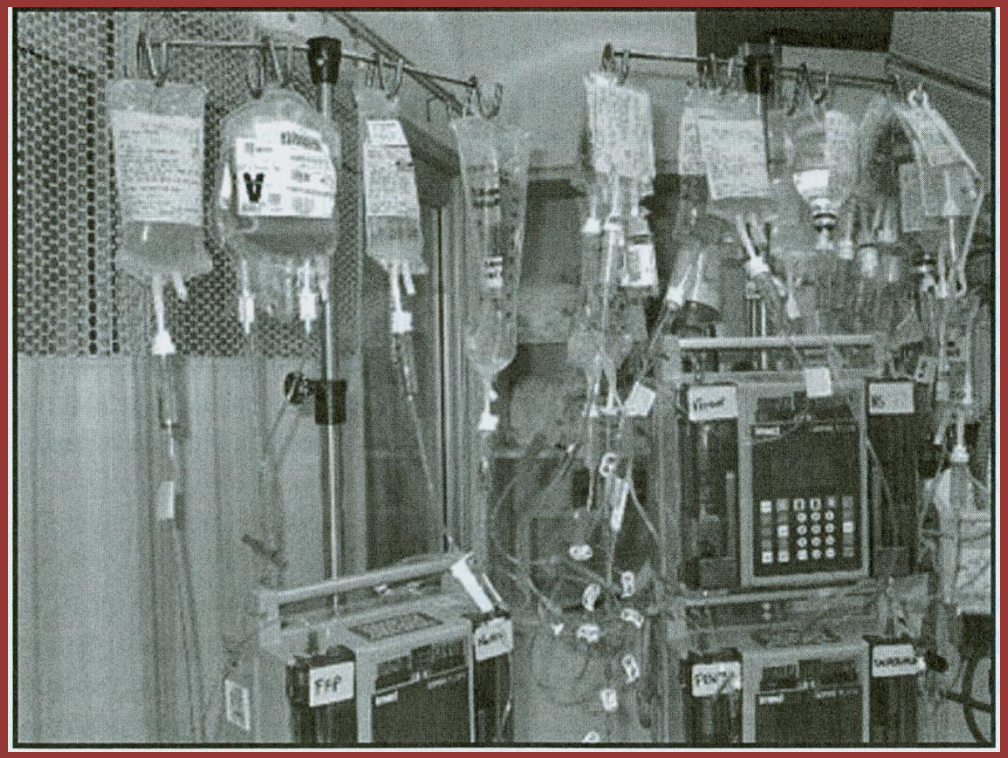
  B - Reminders @ the point of care

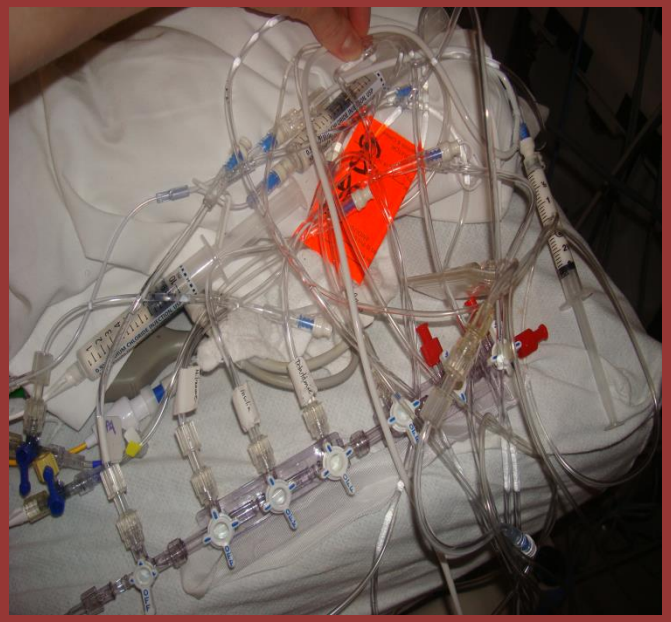
Medical Error Theory

B- Reminders at the point of care

- keeping a checklist to help ensure the steps are performed in the proper sequence

2- Complexity





- Modern health care is the most complex activity ever undertaken by human beings

2- Complexity

- Inpatient medication system

Table 1
Inpatient medication system

Prescribe →	Transcribe →	Dispensing →	Administer →	Monitor
Clinical decision	Receive order	Data entry	Receive from pharmacy	Assess therapy effect
Choose drug	Verify correct	Prepare, mix, compound	Prepare to administer	Assess side effects
Determine dose	Check allergy	Check Accuracy	Verify order and allergy	Review labs
Med record document		Check allergy	Administer drug	Treat side effects
Order		Dispense to unit	Document in MAR	Document

Abbreviation: MAR, medication administration record.

Adapted from Aspden P, Wolcott J, Bootman, JL, et al. Preventing medication errors. Washington, DC: The National Academies Press; 2006. p. 60; with permission.

3- System deficiencies

- 2 major components: Sharp & Blunt Ends

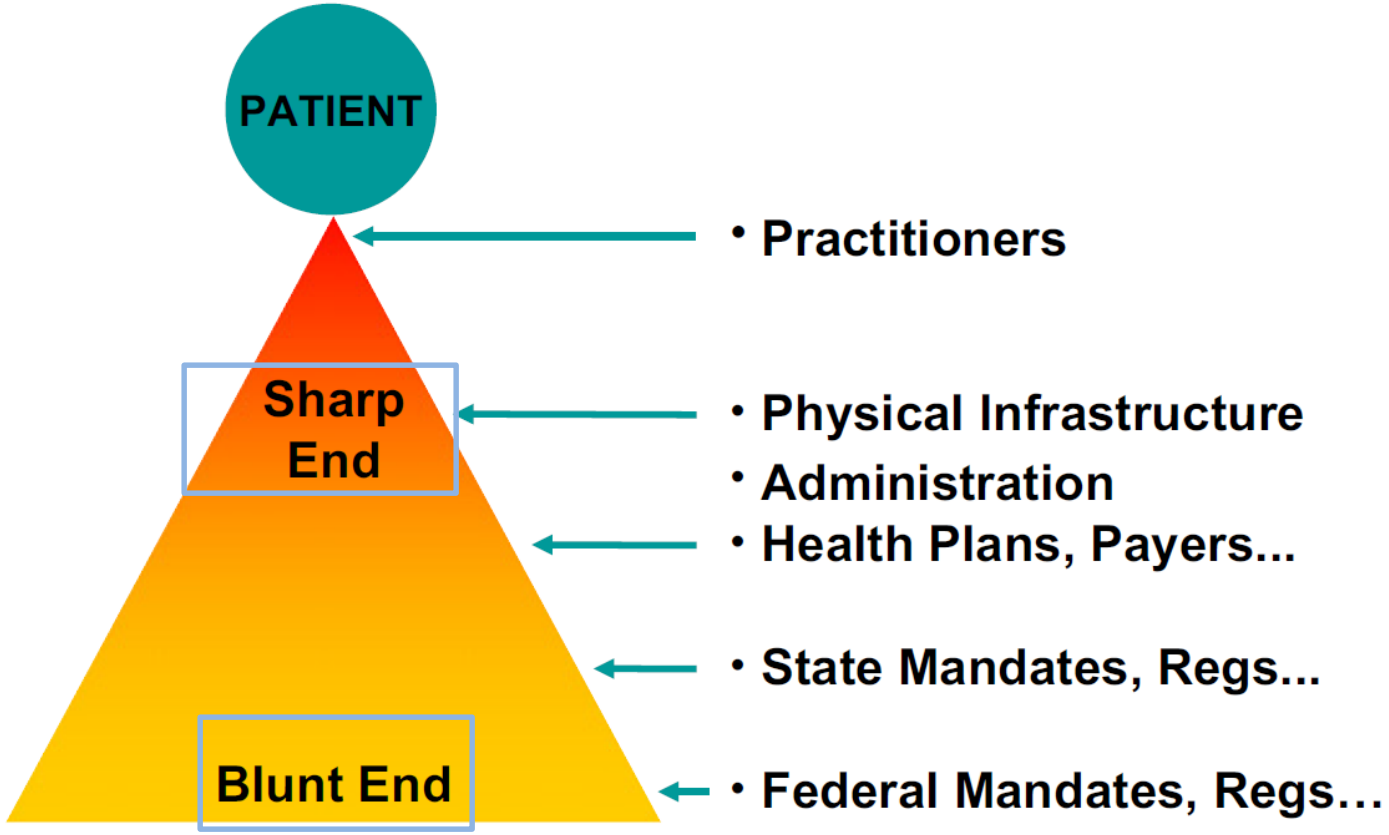


Fig. 1. Components of health systems.

3- System deficiencies & defensive Barriers

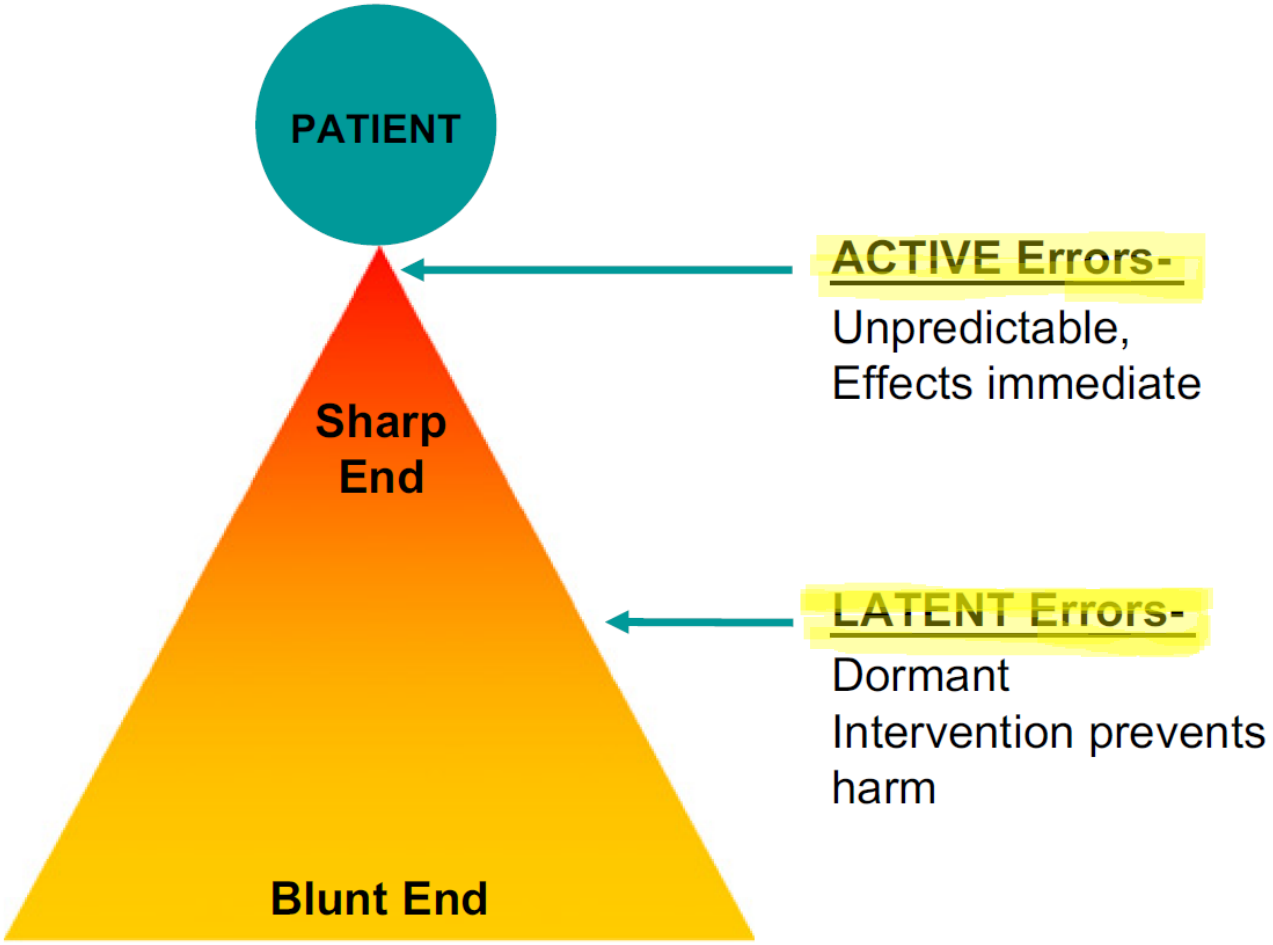


Fig. 2. Types of errors in health systems.

1- Active Errors

- @ the sharp end of care
- Immediate effects
- Generally unpredictable & unpreventable
- **Example:** inadvertent bladder injury during a hysterectomy for endometriosis with multiple adhesions
- There is no " system" that would prevent this injury

B- “ An Accident Waiting To Happen ”

2- Latent Errors

- System deficiencies hidden in the blunt end of care
- we work around these risks until the wrong set of circumstances occur → Patient injury
- **Examples:** understaffing, engineering defects

Medical Errors & Swiss Cheese

Education and debate

Human error: models and management

James Reason

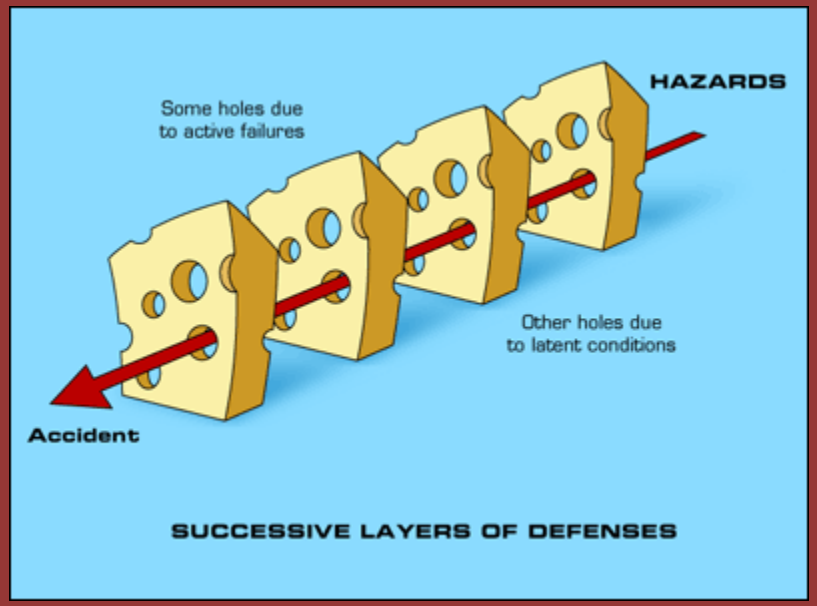
British Medical Journal 2000

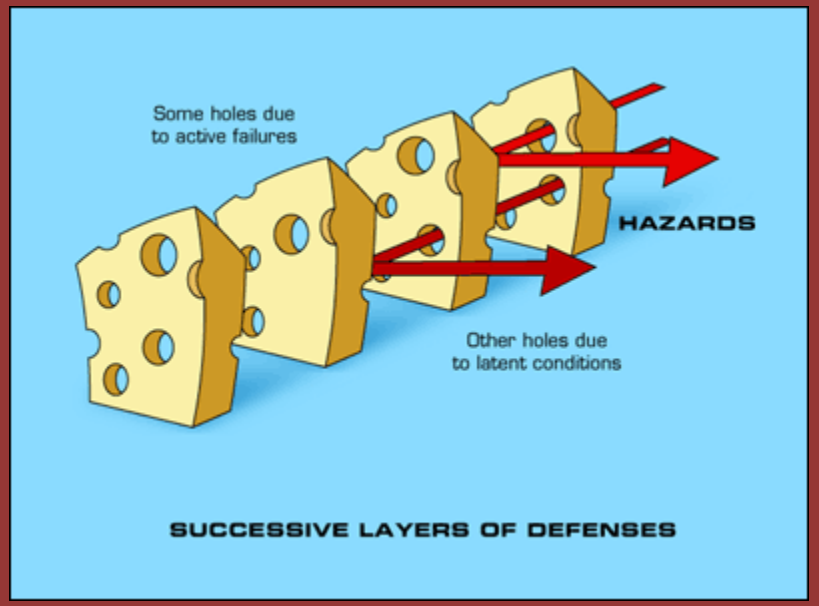
Human Error

- *We cannot change the human condition, but we can change the conditions under which humans work*

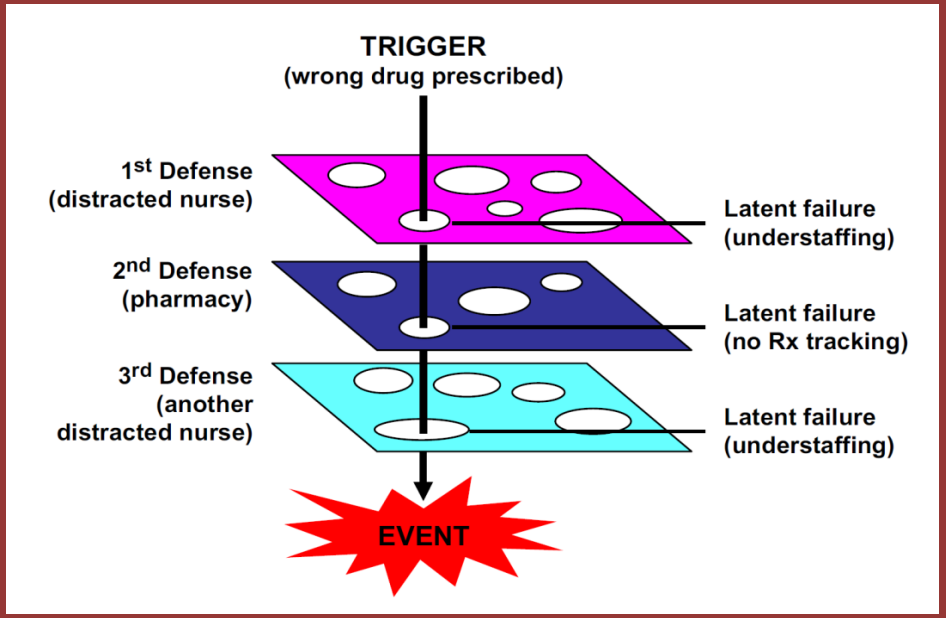
- *Blaming individuals is emotionally more satisfying than targeting institutions.*

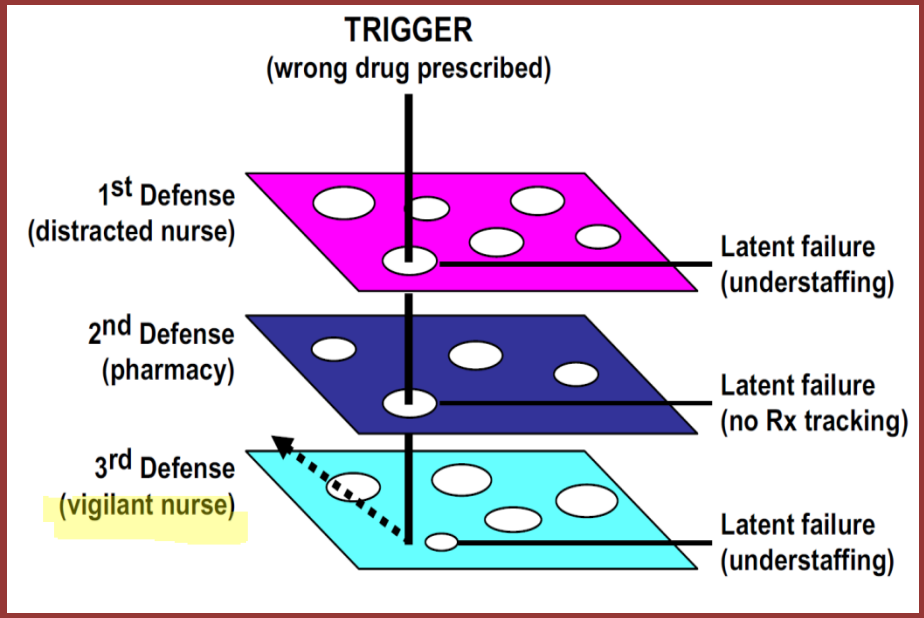
Defensive Barriers: Swiss cheese Model



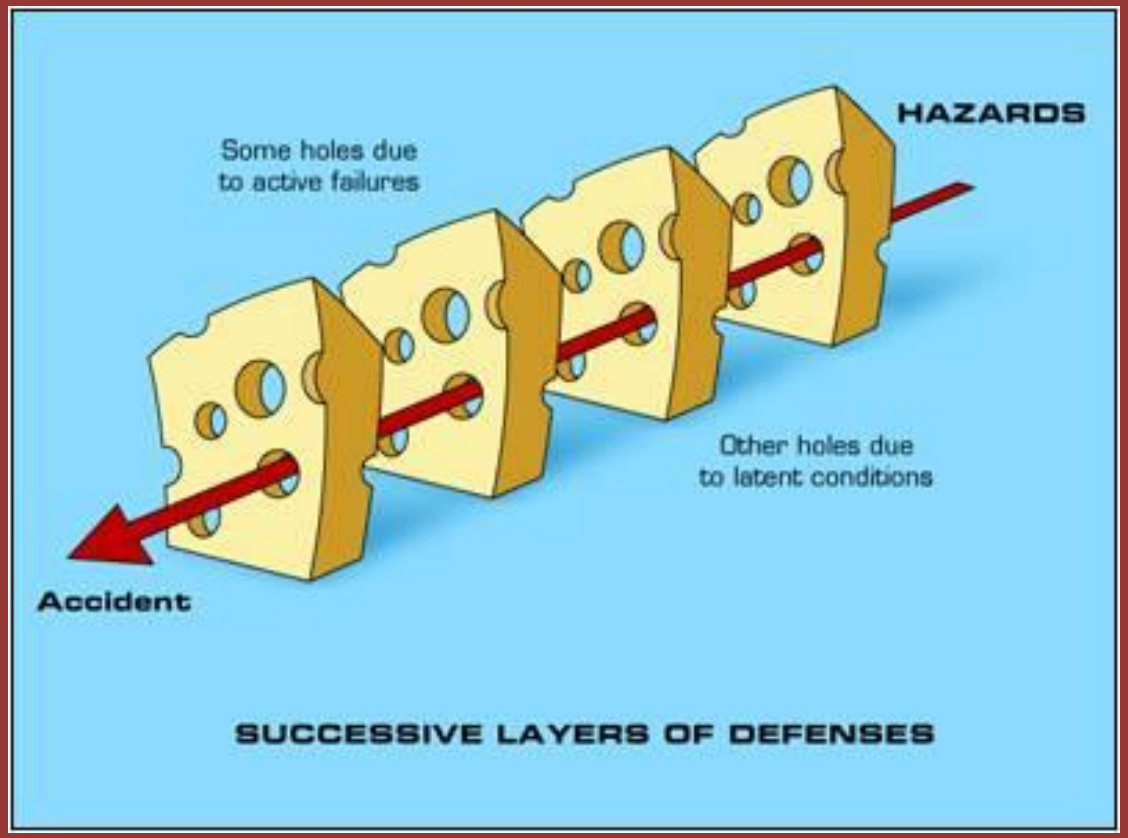


Trajectory of Error & Defensive Barriers



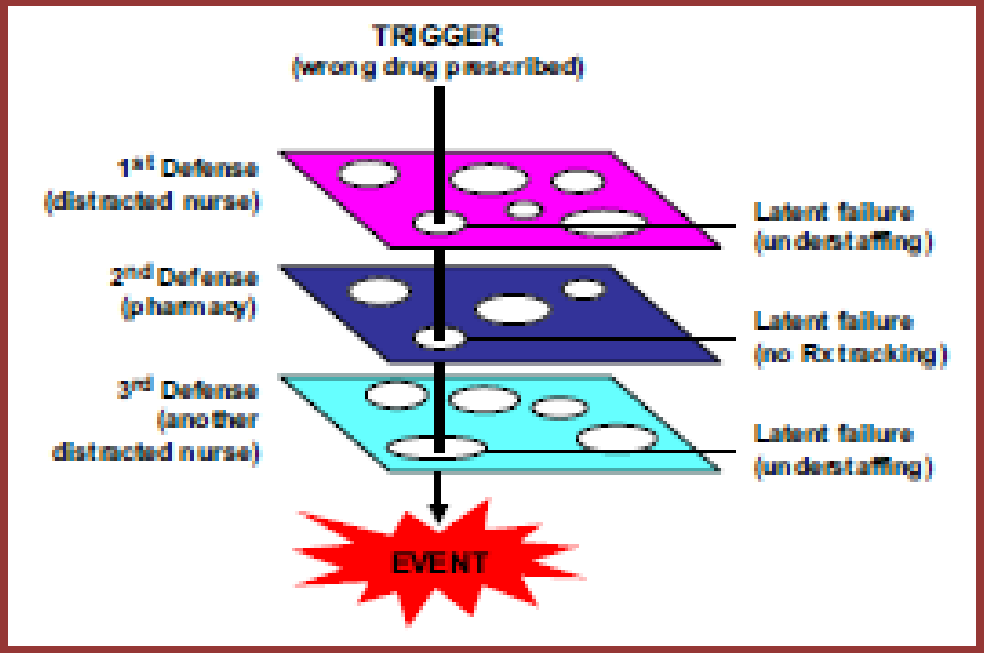


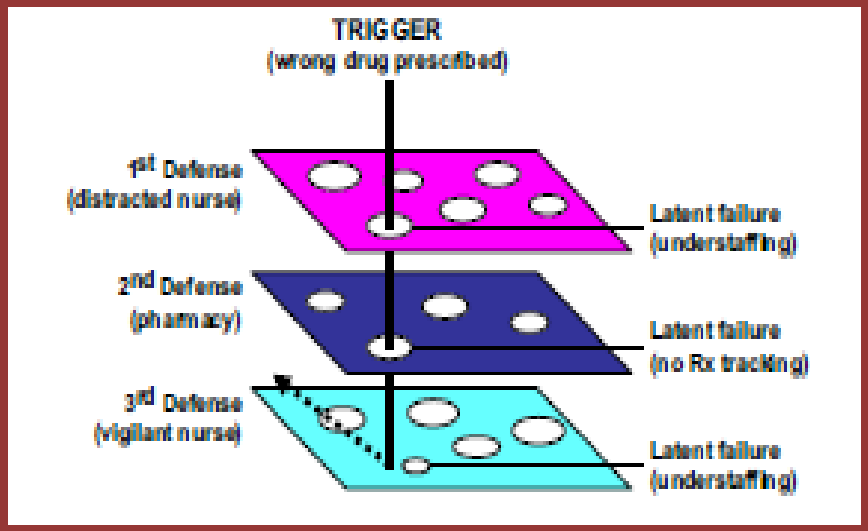
Trajectory of Error & Defensive Barriers



After Reason

Defensive Barriers: Swiss cheese Model



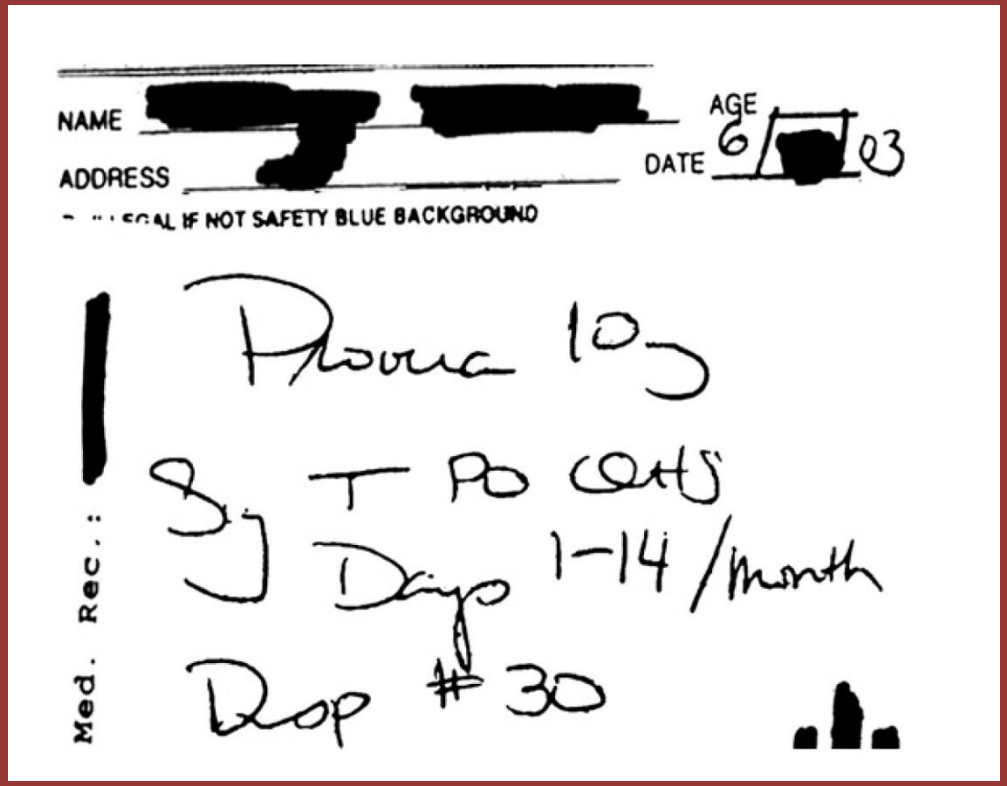


Defensive Barriers

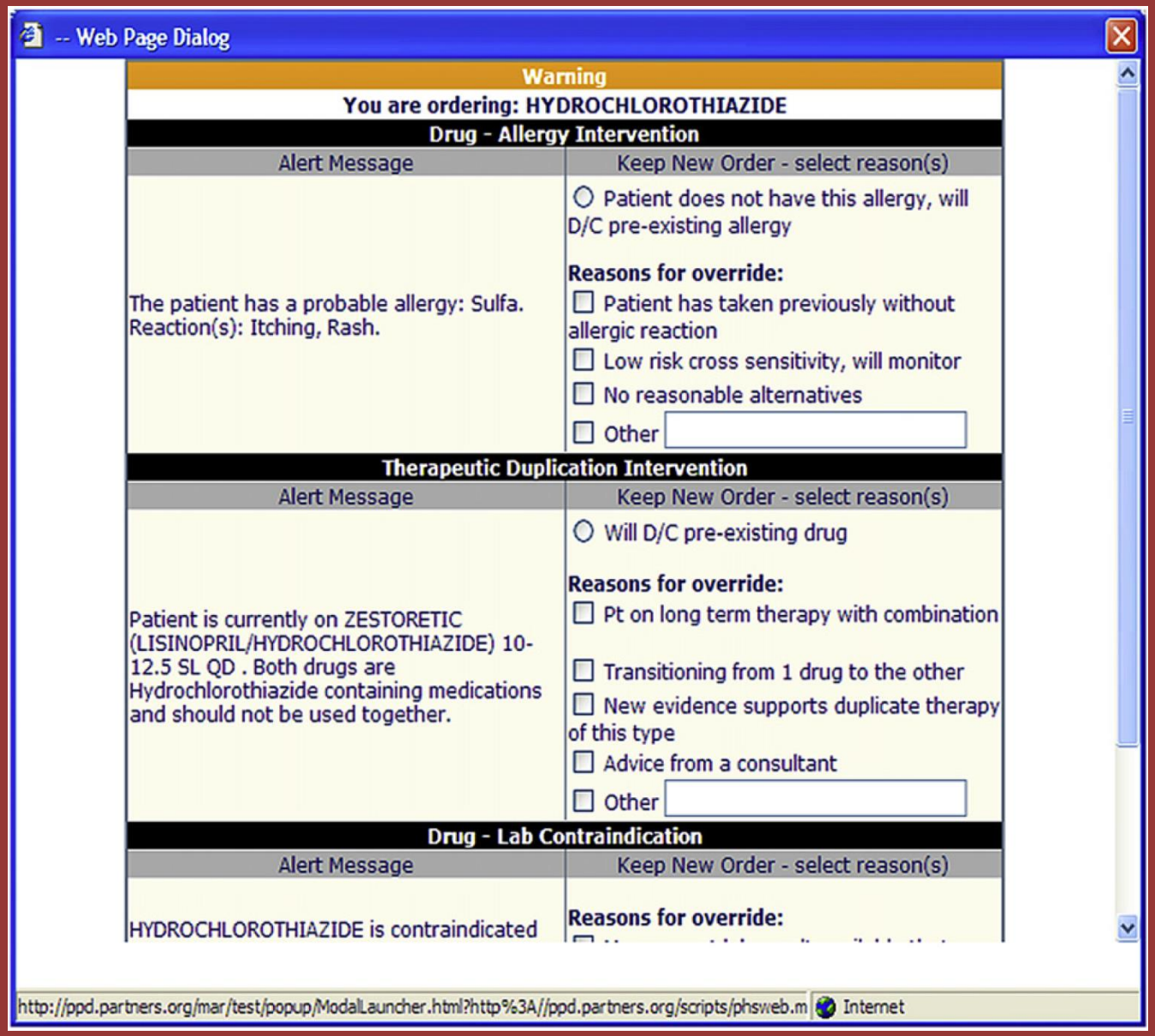
- No defensive barrier is perfect
- Each has inherent vulnerabilities (holes)
- When the potential defects in each of these barriers align in just the wrong way, errors will not be deflected patient injury/death results

Practical solutions to improve safety in OB & GYN

- **Medication errors** account for the largest # of errors in health care



Medication Error: Advance Decision Support Alert



Responding to tragic error: lessons from Foothills Medical Centre

The Calgary Health Region, with its approximately 22 000 employees and showed that the error had occurred in our Central Production Pharmacy. Within the

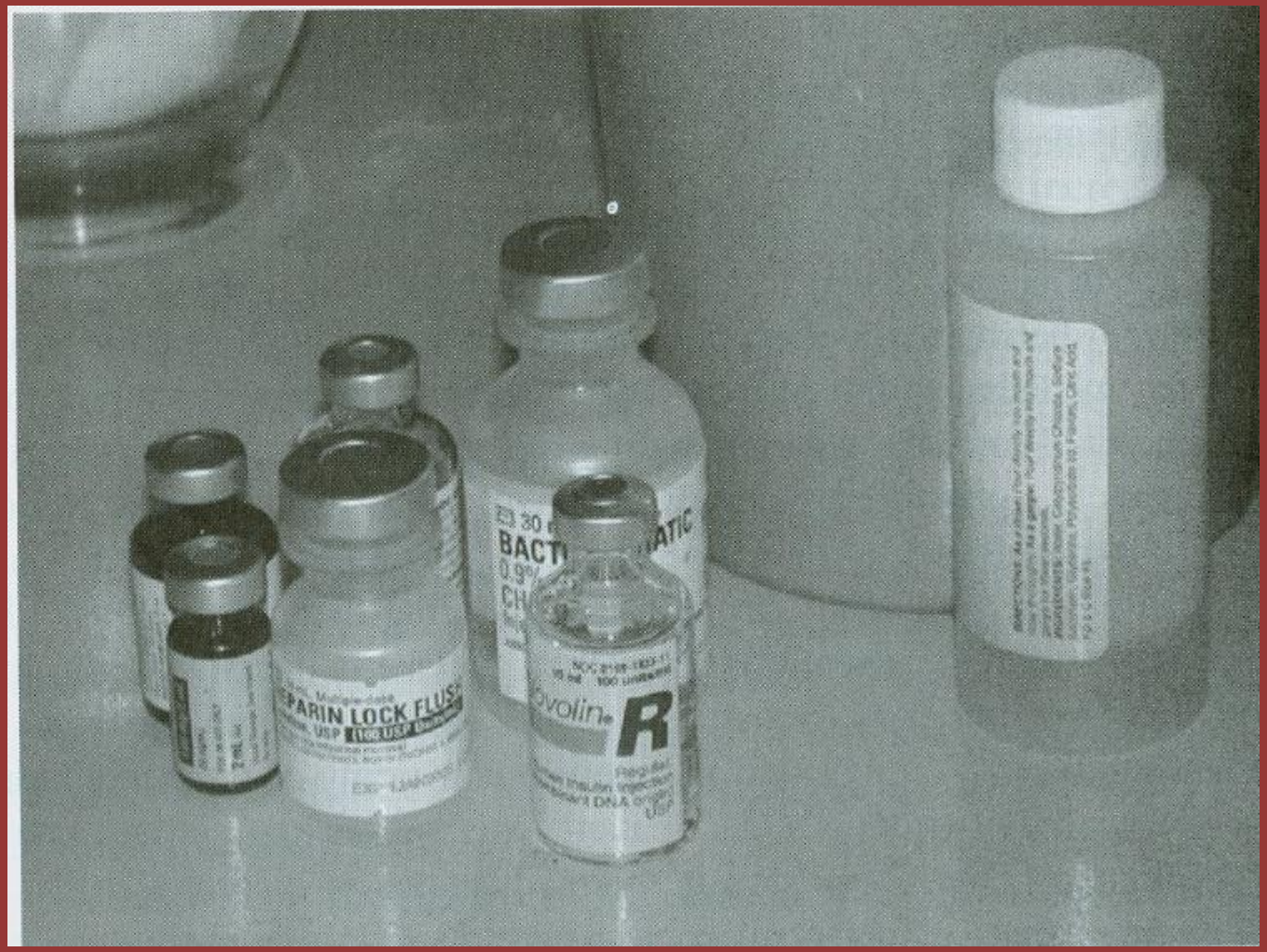
Once the immediate safety issue has been addressed, the challenge was to respond appro-

Courtesy Calgary Health Region

Sodium chloride and potassium chloride bottles: a dangerous similarity

Indiana Hospital: September 2006

Medication Errors



Medication Safety & Errors

- Clear handwriting
- Distinguishing between look-alike and sound-alike drugs
- Avoid using abbreviations/ non-standard abbrev.
- Electronic system for generating & transmitting Rxs
- All prescriptions should include detailed instructions to pt for using the medications

Medication Safety & Errors

- Comprehensive recommendations/guidelines published by ACOG, ACS & Joint Commission

Let our Residents Rest!

- **2003:** work-hour limitations promulgated by the ACGME
- **2010:** new standards

Let our Residents Rest!

The NEW ENGLAND JOURNAL of MEDICINE

Perspective

OCTOBER 21, 2010

The ACGME's Final Duty-Hour Standards — Special PGY-1 Limits and Strategic Napping

John K. Iglehart

Let our Residents Rest!

The NEW ENGLAND JOURNAL of MEDICINE

SOUNDING BOARD

The New Recommendations on Duty Hours from the ACGME Task Force

Thomas J. Nasca, M.D., Susan H. Day, M.D., and E. Stephen Amis, Jr., M.D.,
for the ACGME Duty Hour Task Force

July 8, 2010

Let our Residents Rest!

- **US National Traffic Safety Administration**
  sleepy drivers are responsible for at least **100,000** automobile accidents, **40,000** injuries and **1500** deaths annually
- **Sleep deprivation** increases errors in performing <u>even</u> simple familiar tasks
  - needle sticks
  - puncture wounds
  - lacerations
  - medical errors
  - motor vehicle

The American College of Obstetricians and Gynecologists

WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 519 • March 2012

Committee on Patient Safety

This document reflects emerging concepts on patient safety and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Fatigue and Patient Safety

Surgical Environment

- In **O & G.** , the risks of surgical error may have increased:
  - ↑C.S
  - ↑MIS
  - Robot-assisted laparoscopy
  - Pressure for shorter lengths of stay postop
  - More outpt procedures

1- Retained Foreign Objects

- Sponges, surgical instruments
- Indefensible!
- “Correct sponge count” does **not** exonerate the surgeon

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

PATIENT SAFETY

Risk Factors for Retained Instruments and Sponges after Surgery

Atul A. Gawande, M.D., M.P.H., David M. Studdert, LL.B., Sc.D., M.P.H.,
E. John Orav, Ph.D., Troyen A. Brennan, M.D., J.D., M.P.H.,
and Michael J. Zinner, M.D.

N ENGL J MED 348;3 WWW.NEJM.ORG JANUARY 16, 2003

Table 1. Characteristics of 54 Cases of a Retained Foreign Body after Surgery.

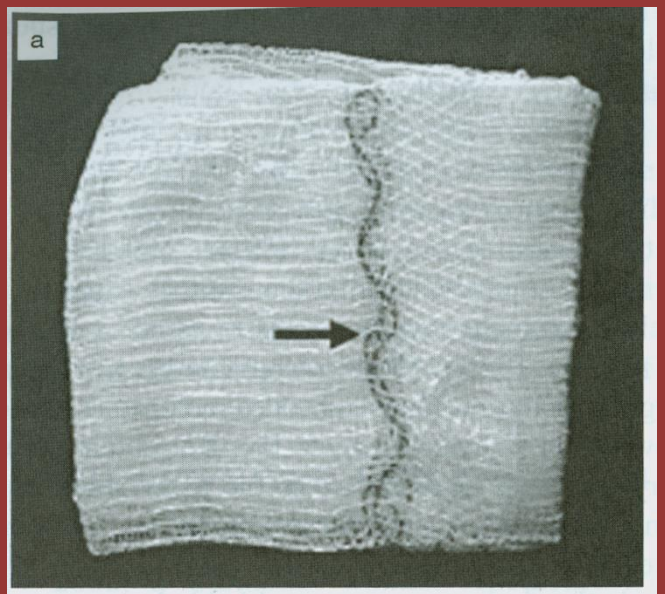
Characteristic	No. of Cases (%)
Type of foreign body retained	
Sponge	37 (69)
>1 Sponge	4 (7)
Clamp	4 (7)
Other (e.g., retractor or electrode)	13 (24)
Cavity in which foreign body was left	
Abdomen or pelvis	29 (54)
Vagina	12 (22)
Thorax	4 (7)
Other	9 (17)
Outcomes	
Death	1 (2)
Readmission to hospital or prolonged hospital stay	32 (59)
Sepsis or infection	23 (43)
Reoperation	37 (69)
Fistula or small-bowel obstruction	8 (15)
Visceral perforation	4 (7)

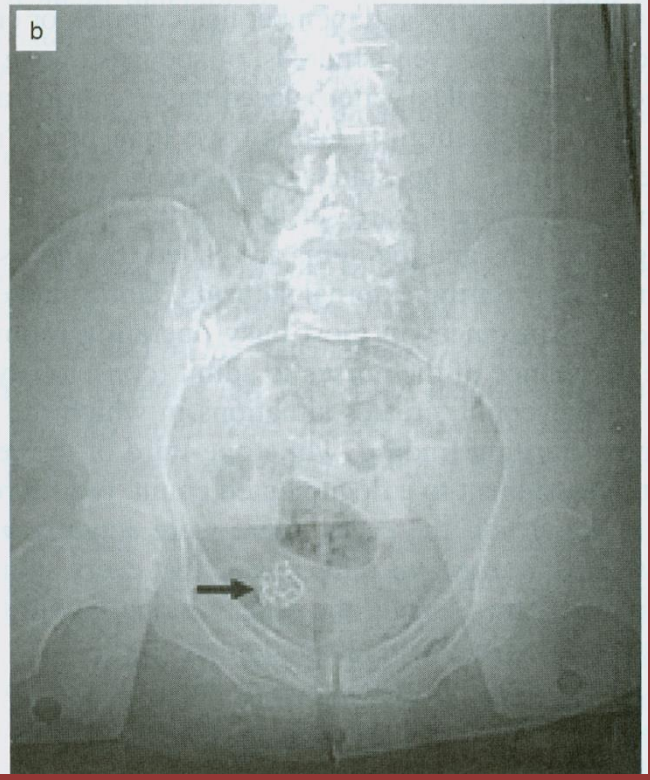
Retained Foreign Objects

Table 3. Risk Factors for Retention of a Foreign Body after Surgery.*

Characteristic	Risk Ratio (95% CI)	P Value
Operation performed on an emergency basis	8.8 (2.4–31.9)	<0.001
Unexpected change in operation	4.1 (1.4–12.4)	0.01
>1 Surgical team involved	3.4 (0.8–14.1)	0.10
Change in nursing staff during procedure	1.9 (0.7–5.4)	0.24
Body-mass index (per 1-unit increment)	1.1 (1.0–1.2)	0.01
Estimated volume of blood lost (per 100-ml increment)	1.0 (1.0–1.0)	0.19
Counts of sponges and instruments performed	0.6 (0.03–13.9)	0.76
Female sex	0.4 (0.1–1.3)	0.13

Retained Foreign Objects





2- Surgical Fire

Surgical Environment

- **Surgical Fires**

  - rare

  - We in O & G have all the 3 elements necessary to start/support fires:

  1- oxidizers: supplies of oxygen gas

  2- ignition sources: electrocautary, fiberoptic light cables, lasers

  3- flammable fuels: surgical drapes, alcohol-based prepping agents, anesthetic gases

3- Medication errors

- Prophylactic ABX: demonstrated effectiveness in reducing surgical morbidity
- Failure to use them when appropriate is a medication error
    - inappropriate choice of agent
    - ineffective start of administration
    - incorrect duration of exposure

4- Venous thromboembolism

- Failure to use accepted surgical thromboprophylaxis is another class of surgical error in patient safety
- Without effective thromboprophylaxis, major gynecologic surgery is associated with a prevalence of DVT 15 - 40%
- ACOG recommends:
  - Low
  - Medium
  - High
  - Highest

5- Handoff Errors

- “ Care transition ” , “ Hand over ”or “ shift change”
- Risky time

  1- Provider handoff

  2- Patient handoff

Ethics , Behavior & Attitude in O & G Practice

- 4 Ethical principles:

1- Nonmaleficence: " first, Do No Harm"

- any action towards patient is not likely to cause more harm than benefit.

2- Beneficence:

- the promotion of the well-being of patients

3- Autonomy:

- the right of self-determination
- The concept of informed consent
  - must be genuinely voulntary and made after adequate disclosure of info
  - PREPARED system (table 1-1) page 7

Ethics , Behavior & Attitude in O & G Practice

4- Justice:

- the way in which the benefits and burdens of society are distributed

- balance between individual and society

Confidentiality:

- Cornerstone of the relationship between physician and patient
- In obstetrics: potential for unique maternal-fetal relationship

Ethics , Behavior & Attitude in O & G Practice

- **<u>Respectful and collegial relationship with other professionals:</u>**
  - other MDs involved in health care have a right to participate in any decision-making.