Revised & Approved

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PATIENT SAFETY TEAM

MED439
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1 Introduction To patient safety

Objectives:

1. Recognize the magnitude and the importance of patient safety.
2. Define and describe the key elements of healthcare quality.
3. Summarize the differences between error and harm.
4. Recognizing characteristics of a just culture.
5. Differentiate between the different types of clinical incidence.
6. Describe several specific behaviors can practice to foster a culture of safety in your workplace

Outlines:

1. Introduction and defining patient safety
2. The key dimensions of healthcare quality
3. Harm Versus error
4. Sources of System Error
5. Patient safety culture
6. Types of clinical incident
7. Seven levels of safety
8. The physician's role in patient safety
9. Case scenario

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Slides

Important

Doctors notes

Extra

Introduction

- Significant numbers of patients are harmed due to their health care, either resulting in permanent injury, increased length of stay (LOS) in health-care facilities,
- or even death.
- 44 – 98,000 deaths annually caused by medical error.
- There are more deaths annually as a result of health care than from road accidents, breast cancer and AIDS combined.

Defining patient safety

The reduction of risk of unnecessary harm associated with health care to an acceptable minimum. (WHO, World Alliance for Patient Safety 2009).

Why is it a problem?

Hospital/Country	Years in which data was collected	Number of hospital admissions	Number of adverse event	Adverse event rate %
US(Harvard Medical Practice Study)	1984	30195	1133	3.8%
Australian (Quality in Australian healthcare study)	1992	14179	2353	16.6%
UK	1999-2000	1014	119	11.7%
Denmark	1998	1097	176	9%
KKUH	2014	47211	2950	6.2%

The 6 key elements & dimensions of healthcare quality

1. **Safe**
2. **Family- centered**
3. **Effective**
4. **Timely**
5. **Equal**
6. **Efficient**

Timely

Reducing waits and sometimes unfavorable delays for both those who receive and those who give care.

Family-centered

Providing care that is respectful of and responsive to individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions.

Equal

Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socio-economic status

Efficient

Avoiding waste, in particular waste of equipment, supplies, ideas and energy.

Safe

Avoiding injuries to patients from the care that is intended to help them.

Effective

Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse). Doing the right thing for the right person at the right time.

Sources of System Error

Sources of System Error

Active errors or human error

Are committed by frontline staff and tend to have direct patient consequences.

Example giving the wrong medication, treating the wrong patient or the wrong anatomical site, or not following the correct policies and procedures.

Latent or system errors

Are those errors that occur due to a set of external forces and indirect failures involving management, protocols/ processes, organizational culture, transfer of knowledge, and external factors

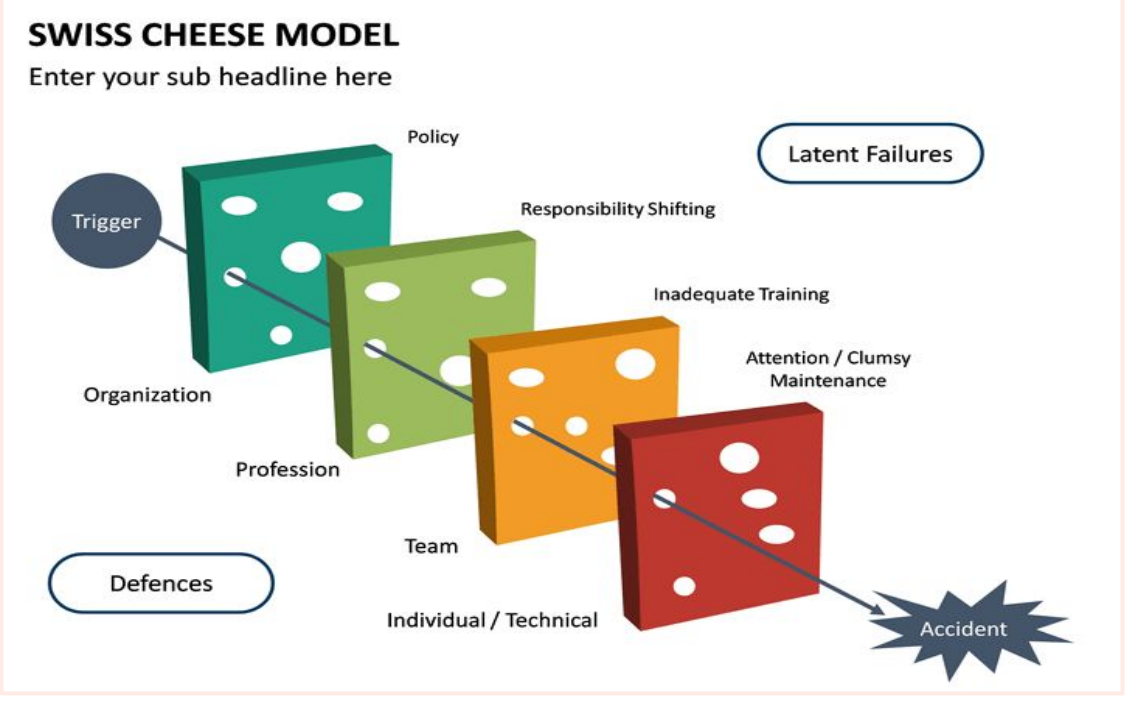
Example understaffed wards or inadequate equipment.

Errors in medicine

- Errors in health care can be caused by "active failures" or "latent conditions."
- Most errors are not a result of personal error or negligence, but arise from system flaws or organizational failures.

"Swiss cheese" model of accident causation

- The systems have many holes: some from active(human)failures and others from
- latent (system) conditions.
- These holes are continuously opening, shutting, and shifting their location. In any one slice, they do not normally cause harm, because the other intact slices prevent hazards from reaching the potential victim.
- Only when the holes in many layers momentarily line up does the trajectory of accident opportunity reach the victim causing the damage.



Patient safety culture

- Definition : is An integrated pattern of individual and organizational behavior, based on a system of shared beliefs and values, that continuously seeks to minimize patient harm that may result from the process of care delivery.
- Let us say a patient had received a wrong medications and suffered a subsequent allergic reaction , what type of culture should be used ?
First we have two types of Patient safety culture

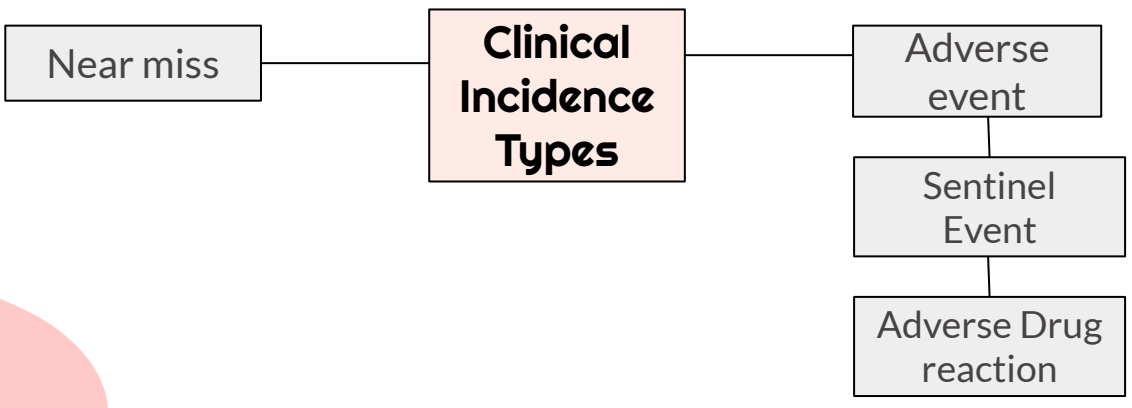
Blame culture (The wrong way) :
we look for the individual student, pharmacist, nurse or doctor who ordered, dispensed or administered the wrong drug and blame that person for the patient's condition care at the time of the incident and hold them accountable.

Just Culture (The right way) :
we look for the system defect such as communication , protocols and processes for medication management , in addition to investigate the negligence or recklessness of the worker.

The concept of Clinical incident

- Definition : is A clinical incident is an event or circumstance resulting from health care which could have, or did lead to unintended harm to a person, loss or damage, and/or a complaint. (deviation from standard of care and safety)

-Examples:
- Medication errors (e.G. Wrong medication, omission, overdose);
- Patient falls;
- Intended self harm or suicidal behaviour;
- Therapeutic equipment failure;
- Contaminated food;
- Problems with blood products;
- Documentation errors;
- Delayed diagnosis;
- Surgical operation complications;
- Hospital acquired infection



IMPORTANT

Types of Clinical Incidence

Near miss:

Definition :
Is any situations that did not cause harm to patients
(that did not reach the patient) , but could have done.

Adverse Drug Reaction:

A response to a drug which is noxious and unintended, and which occurs
at doses normally used in man for the prophylaxis, diagnosis, or therapy
of disease, or for the modifications of physiological function*

Adverse event

sentinel event

Definition :
A sentinel event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.
Serious injury specifically includes loss of limb or function.

Example:
Hemolytic transfusion reaction involving administration of blood or blood products having major blood group incompatibilities

How to maintain safety in clinical incident ?

- Adhere and follow the National Patient Safety Goals/ ROP(Required Organization Practice)
- Adverse reporting
- Client verification
- Medication reconciliation
- Dangerous abbreviations
- Transfer of client information at transition points
- Control of concentrated electrolytes
- Infusion pumps training
- High-alert medications
- Hand hygiene
- Antibiotic prophylaxis during surgery
- Falls prevention strategy
- Pressure ulcer prevention
- Venous thromboembolism prophylaxis
- Safe injection practices
- Safe surgical practices
- Preventive maintenance program

*(WHO,1972)

Case Study

A 38-year-old woman comes to the hospital with 20 minutes of itchy red rash and facial swelling , she has a history of serious allergic reactions .
A nurse draws up 10 mls of 1:10,000 adrenaline (epinephrine) into a 10 ml syringe and leaves it at the bedside ready to use (1 mg in total) just in case the doctor requests it , Meanwhile the doctor inserts an intravenous cannula .
The doctor sees the 10 ml syringe of clear fluid that the nurse has drawn up and assumes it is normal Saline.
There is no communication between the doctor and the nurse at this time
The doctor gives all 10 mls of adrenaline (epinephrine)through the intravenous cannula thinking he is using saline to flush the line.
The patient suddenly feels terrible, anxious, becomes tachycardia and then becomes unconscious with no pulse.
She is discovered to be in ventricular tachycardia, is resuscitated and fortunately makes a good recovery.
Recommended dose of adrenaline (epinephrine) in anaphylaxis is 0.3 - 0.5 mg IM, this patient received 1mg IV

Can you identify the contributing factors to this error?

- Lack of communication
- Inadequate labeling of syringe
- Giving a substance without checking and double checking what it is
- Lack of care with a potent medication

Conclusion

- Patient safety is the avoidance, prevention and amelioration of harm from healthcare.
- Two approaches to the problem of human fallibility exist:
  – The person approach focuses on the errors of individuals, blaming them
  – The system approach concentrates on the conditions under which individuals work
- Some errors cause harm but many do not.
- Blaming and then punishing individuals is not an effective approach for improving safety within the system
- Adverse events often occur because of system breakdowns
- Standardizing and simplifying clinical processes is a powerful way of improving patient safety

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