



Patient Safety Review File

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Please Note: This Work Mainly Fucoses On The High-yield Points “Definitions & Types” Which You Need To Know Especially For The SAQs.

Definitions | **Types** | **Doctors' notes**

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1. What is Patient Safety

Patient Safety: The reduction of risk of unnecessary harm associated with health care to an acceptable minimum.

The 6 Key Dimensions Of Healthcare Quality:

- Safe
- Effective
- Timely
- Family-centered
- Efficient
- Equal

Harm: Impairment of structure or function of the body and/or any deleterious effect arising from interaction with health care. Harm includes disease, injury, suffering, disability and death.

Ex: A patient with breast cancer undergoes chemotherapy. The treatment causes severe nausea and vomiting (a known complication) and she is admitted with clinical dehydration.

Error: An error is a failure to carry out a planned action as intended. Errors may manifest by doing the wrong thing (commission) or by failing to do the right thing (omission).

Ex: A patient is diagnosed with pneumonia and treated with an antibiotic, later investigations reveal a pulmonary embolism as the true problem. This should be treated with anticoagulation.

All errors can be divided into two main groups:

1) Active errors or human error: Are committed by frontline staff and tend to have direct patient consequences.

Ex: Giving the wrong medication, treating the wrong patient or the wrong anatomical site, or not following the correct policies and procedures.

2) Latent or system errors: 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.

Ex: Understaffed wards or inadequate equipment.

1. What is Patient Safety

Patient Safety Culture: 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.

just' culture: balancing the 'blame' and 'no blame' approaches.

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.

Types Of Clinical Incident:

1. Adverse Event: An adverse event is an unintended injury or complication which results in disability, death or prolonged hospital stay, and is caused by health-care management

A) Sentinel Event: 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.

B) Never Event

C) Adverse Drug reaction

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

Seven levels of safety:

- **Patient factors:** such as personality, language) and psychological problems may also be important as they can influence communication with staff.
- **Task factors:** The design of the task, the availability and utility of protocols. and guidelines.
- **Individual factors:** include the knowledge, skills and experience of each member of staff
- **Team factors:** The way an individual practices, and their impact on the patient, is influenced by other members of the team and the way they communicate and support each other.
- **Working conditions:** These include the physical environment, availability of equipment and supplies and the light, heat, interruptions and distractions that staff endure.
- **Organizational factors:** The team is influenced in turn by management actions and by decisions made at a higher level in the organization. These include policies, continuing education, training and supervision and the availability of equipment and supplies.
- **External environment factors:** The organization itself is affected by financial constraints, external regulatory bodies and the broader economic and political climate.

2. Why Applying Human Factors Is Important For Patient Safety

human factors or ergonomics: terms used to describe the interrelationship between individuals at work, their equipment and tools, and the environment in which they live and work.

Example of tasks if become easier for the health-care provider, then patient safety can improve:

- Prescribing and dispensing (hand writing problems)
- Hand-over/hand-off information (on-call doctors are tired when they hand over so they don't give good reports about the patients to the one after them)
- Move patients

Examples Of Traps In Health Care:

- Look-alike and sound-alike medications
- Equipment design complexity (infusion pumps)

Human Factors Acknowledges:

- The universal nature of human fallibility
- The inevitability (certain to happen) of error
- Assumes that errors will occur
- Designs things in the workplace to try to minimize the likelihood of error or its consequence

2. Why Applying Human Factors Is Important For Patient Safety

Error: Doing the wrong thing when meaning to do the right thing.

OR: The failure of a planned action to achieve its intended outcome.

OR: A deviation between what was actually done and what should have been done.

Situations Associated With An Increased Risk Of Error:

- Inexperience
- shortage of time and staff
- inadequate checking
- poor procedures

Individual Factors That Predispose To Error:

Limited memory capacity

- Further reduced by:
- Fatigue
- Stress
- Hunger
- Illness

Don't approach the patient If You're (HALT):

- Hungry
- Angry
- Late
- Tired

A Performance-shaping Factors "Checklist":

"IM SAFE"

- I : Illness
- M : Medication
- S : Stress
- A : Alcohol
- F : Fatigue
- E : Emotion

Putting Knowledge Of Human Factors Into Practice:

- Apply human factors thinking to your work environment
- Avoid reliance on memory
- Review and simplify processes

3. Understanding Systems And The Effect Of Complexity On Patient Care

System: An interdependent group of items forming a unified Whole.

Two Schools Of Thought Regarding Iatrogenic Injury:

Traditional or person approach:

- See errors as the product of carelessness.
- Naming
- Blaming

Systems approach:

- Patient factors
- Task factors
- Individual factors
- Team factors
- Working conditions
- Organizational factors
- External environment factors

Why A Systems Approach To Patient Safety Is Superior To The Traditional Approach?

Use of systems approach to evaluate the situation will have a greater chance of resulting in the establishment of strategies to decrease the likelihood of recurrence of an error and the promotion of a culture of safety in health care.

3. Understanding Systems And The Effect Of Complexity On Patient Care

J. Reason Swiss cheese model:

- explain how faults in different layers of a system lead to adverse events and medical errors.
- shows how a fault in one layer of a system of care is usually not enough to cause an accident.

Defenses in the Swiss cheese model:

- Policy writing
- Training
- Standardizing
- Simplifying
- Automation

Key Principles From HRO Theory:

- Maintain a powerful and uniform culture of safety
- Use optimal structures and procedures
- Provide intensive and continuing training of individuals and teams
- Conduct thorough organizational learning and safety management

4. Understanding & Managing Risk

Hazard: is any activity, situation or, substance that potential to cause harm, including ill health, injury, loss of product and/or damage to plant and property.

Risk: is the probability that harm (illness or injury) will actually occur.

Risk Management: Organizational effort to identify, assess, control and evaluate the risk to reduce harm to patient, visitors and staff and protect the organization from financial loss.

Purpose Of Risk Management:

- Improve organizational and client safety
- Identify and minimize the risks and liability losses
- Protect the organization resources
- Support regulatory, accreditation compliance

Process Used To Mangep Clinical Risks:

- Identify the risk
- Assess the frequency and severity of the risk
- Reduce or eliminate the risk
- Assess the costs: saved by reducing the risk or the costs of not managing the risk

4. Understanding & Managing Risk

SAC (Severity Assessment Code) Score:

it is a matrix scoring system/ numerical scores are given to the severity and likelihood of risks and these scores are multiplied to get a rating for the risk.

incident: as an event or circumstance that could have or did lead to unintended and/or unnecessary harm to a person and/or a complaint, loss or damage.

Activities Commonly Used To Manage Clinical Risk:

- **Incident monitoring:** refers to mechanisms for identifying, processing, analyzing and reporting incidents with a view to preventing their reoccurrence
- **Sentinel Events:** serious events lead to death or morbidity → reported for ministry
- **Fitness-to-practice requirements:**
 - **Credentialing**
 - **Registration (licensure)**
 - **Accreditation**

Credentialing: The process of assessing and conferring approval on a person's suitability to provide specific consumer/patient care and treatment services, within defined limits, based on an individual's license, education, training, experience, and competence.

Accreditation: Is a formal process to ensure delivery of safe, high-quality health care based on standards and processes devised and developed by health-care professionals for health-care services.

Registration (Licensure): Registration of health-care practitioners with a government authority, to protect the health and safety of the public.

5. Introduction To Quality Improvement Methods

The Purpose Of Quality Improvement Methods:

- Identify a problem.
- Measure the problem
- Develop a range of interventions designed to fix the problem.
- Test whether the interventions worked

The Science Of Improvement (Three main types of measures):

- **Outcomes Measures:** Represent the ultimate goal of healthcare. **Ex:** The 30-day mortality.
- **Processes Measures:** Represent the delivery of specific clinical services to patients, are often based upon clinical guidelines. **Ex:** The percentage of patients hospitalized for MI who are treated with a beta blocker at the time of discharge.
- **Structure Measures:** Represent the characteristics of individual healthcare providers, organizations, and facilities. **Ex:** Nursing ratio in the ICU.

Continuous Improvement Methods:

- Clinical practice improvement (CPI) methodology
- Root cause analysis (RCA)
- Plan-Do-Study-Act cycle

5. Introduction To Quality Improvement Methods

Root cause analysis (RCA): Is a defined process that seeks to explore all of the possible factors associated with an incident by asking what happened, why it occurred and what can be done to prevent it from happening again.

Effective RCA requires:

- Multidisciplinary team
- Documentation and review
- Event flowchart
- team develops a problem statement
- brainstorming process of all possible factors

Plan-do-study-act Cycle : test and implement changes in real work settings, it guides the test of a change to determine if the change is an improvement.

Three fundamental questions (PDSA) Cycle:

- What are we trying to accomplish?
- How will we know whether a change is an improvement?
- What changes can we make that will result in an improvement?

Quality Improvement Tools:

- **Pareto charts:** multiple factors that contribute to the overall effect are arranged in descending order according to the magnitude of their effect , helps the team concentrate its efforts on the factors that have the greatest impact.
- **Run charts:** graphs of data over time. helps the team know if a change is an improvement over time or just a random fluctuation wrongly interpreted as significant improvement.

6A. Being An Effective Team Player

Team: A distinguishable set of two or more people who interact dynamically, interdependently and adaptively towards a common and valued goal/objective/mission, who have been each assigned specific roles or functions to perform, and who have a limited lifespan of membership.

Teams can improve care at the level of:

- The organization
- The patient – outcomes and safety
- The team as a whole
- The individual team member

Tuckmann identified four stages of team formation and development:

- Forming
- Storming
- Norming
- Performing

Effective teams possess the following features:

- A common purpose
- Measurable goals
- Effective leadership and conflict resolution
- Good communication

Effective team leaders coordinate and facilitate teamwork by:

- Delegating tasks or assignments
- Conducting briefs, huddles, debriefs
- Accepting the leadership role
- Asking for help as appropriate

6A. Being An Effective Team Player

ISBAR: technique have been developed to promote communication in health care.

- Identify
- Situation
- Background
- Assessment
- Recommendation / Requirements

Challenges To Effective Teamwork:

- Changing roles
- Changing settings
- Health-care hierarchies

Accidents In Other Industries happens by Failures in the following team behaviors:

- Roles not being clearly defined
- Lack of explicit coordination
- Mis-communication

Assessing team performance can be carried out:

- In the workplace
- In simulated environments
- Through observing teamwork exercises

Practical tips for health-care students To Apply Teamwork Principles:

- Always introduce yourself to the team
- Clarify your role
- Learn and use people's names

6B. Engaging With Patients And Careers

Respect patients autonomy: refers to their right to make choices according to their own values. It is unethical for a health-care professional to interfere with the choices patients make, unless the person is unconscious or in a life-threatening situation.

The consent process: enables patients to consider options in relation to their care and treatment, including alternatives to the course of treatment proposed.

SEGUE Framework in Obtaining Informed Consent:

- Set the stage
- Elicit information
- Give information
- Understand the patient's perspective
- End the encounter

Successful involvement of patients in their own care requires:

- understanding the strong emotional context to adverse events
- honesty, empathy and respect for patients and careers
- knowledge on how to listen carefully and communicate effectively

Culture: broad term that includes language and customs, values, beliefs, behaviors, practices, institutions and the ways in which people communicate.

Cultural competence in providing health services requires health-care workers to:

- be aware of and accept cultural differences
- be aware of own cultural values
- recognize that people from different cultural backgrounds
- be able and willing to change the way they work to fit in with the patient's cultural or ethnic background

Open Disclosure: Informing patients and their families of bad outcomes of health-care treatment, as distinguished from bad outcomes that are expected from the disease or injury being treated

Key principles of open disclosure:

- Openness and timeliness of communication
- Acknowledgement of the incident
- Expression of regret/apology
- Confidentiality

Harvard Framework:

- Preparing Initiating conversation
- Presenting the facts
- Actively listening
- Acknowledging what you have heard
- Concluding the conversation
- Documentation

Why engaging with patients and their families is important

- Every patient has the right to receive information about the care they are receiving.
- Informed consent allows patients, in collaboration with health-care providers, to make
- decisions about interventions and potential risks.
- Many patient and consumer organizations around the world are turning their attention to
- activities that promote safe patient care.
- The WHO initiative 'Patients for Patient Safety' focuses on patient safety advocacy and
- awareness-raising by patient 'champions'.
- Patient engagement activities divide into: learning and healing after an adverse event; and
- engagement of patients in preventing harm.

Advanced communication techniques and open disclosure:

1. Ways to engage patients

Health-care providers should:

- Actively encourage patients and carers to share information;
- Show empathy, honesty and respect for patients and carers;
- Communicate effectively;
- Obtain informed consent in an appropriate manner;
- Remember that information exchange is a process not an event—leave open the
- Opportunity for patients to return with more questions;
- Show respect for patient's religious and cultural beliefs and individual needs;
- Apply patient engagement thinking in all clinical activities;
- Recognize the place of patient and carer engagement in good clinical management.

2. SPIKES: a communication tool

SPIKES: is used to assist health-care professionals to communicate bad news in situations where the patients are at the end of their life.

- **S**etting
- **P**erception
- **I**nformation
- **K**nowledge
- **E**mpathy
- **S**trategy and Summary

7. Learning From Errors To Prevent Harm

Error: Planned sequences of mental or physical activities that fail to achieve their intended outcomes.

Violation: A deliberate deviation from an accepted protocol or standard of care.

Incident Reporting/Monitoring: Involves collecting and analyzing information about any event that could have harmed or did harm anyone in the organization.

Successful strategies of Incident Reporting/Monitoring include:

- anonymous reporting
- timely feedback
- reporting of near misses

Personal Error Reduction Strategies:

- Know yourself: eat well, sleep well, look after yourself
- Know your environment
- Know your task(s)
- Ask if you don't know!

8. Infection Prevention And Control

Health care-associated Infection (HCAI):

infection acquired in a hospital by a patient who was admitted for a reason other than that infection and/or an infection occurring in a patient in a hospital or other facility in whom the infection was not (latently) present at admission.

Two levels of precautions:

Standard precautions: can be applied to all patients in all health-care settings, regardless of a suspected or confirmed infectious agent. These precautions constitute the primary strategy for infection prevention.

includes:

- hand hygiene
- the wearing of gloves , gown , mask , face shield
- safe injection practices

Transmission-based precautions: should be used when treating patients who are known or suspected of being infected or colonized with infectious agents. There are **three categories:**

- contact precautions
- droplet precautions
- airborne precautions

8. Infection Prevention And Control

Transmission route:

Transmission through direct contact: Person-to-person transmission can occur when microbes present in blood or other bodily fluids of a patient are transmitted to a health-care worker (or vice versa) through contact with a mucous membrane or breaks (cuts, abrasions) in the skin.

Indirect transmission: transmitted indirectly through devices such as thermometers, stethoscopes, other inadequately decontaminated equipment, medical devices or toys, which health-care workers pass from one patient to another. This is probably the **most common**.

Droplet transmission: Respiratory droplets carrying pathogens are generated when an infected person coughs, sneezes, or talks, as well as during procedures such as suctioning or intubation.

Airborne transmission: occurs through the dissemination of either airborne droplet nuclei or small particles in the respirable-size range containing infectious agents that remain infective over time and distance

Percutaneous exposure: occurs through contaminated sharps.

Preventing health care-associated infection:

- Environmental cleanliness
- Sterilization/disinfection of equipment, devices and instruments
- Medical devices labelled “for single use”
- Hand hygiene most important
- The use of personal protective equipment
- The safe use and disposal of sharps

WHO's “My 5 Moments for Hand Hygiene”:

- before touching a patient
- before a clean/aseptic procedure
- after bodily fluid exposure risk
- after touching a patient
- after touching patient surroundings

9. Patient Safety And Invasive Procedures

The main types of adverse events associated with invasive procedural and surgical care:

- Poor infection control methods
- Inadequate patient management
- Failure by health-care providers to communicate effectively before, during and after operative procedures

Guideline: gives recommendations about a certain topic.

Protocol: is a set of sequential steps that should be followed in a particular order, enabling the task to be completed.

Checklist: is used to ensure that certain mandatory items are not forgotten.

10. Improving Medication Safety

Side effect of a drug: a known effect, other than that primarily intended, relating to the pharmacological properties of a medication.

Medication Error: is any preventable event that may cause or led to inappropriate medication use or patient harm.

Steps In Using Medication:

- Prescribing
- Preparation and Dispensing
- Administration
- Monitoring

Medication Prescription:

- Choosing an appropriate medication
- Selecting the administration
- Communicating details of the plan with Whoever will administer the medication and the patient
- Documentation

Sources Of Error In Prescribing:

- Inadequate knowledge about drug indications an contraindications
- Not considering individual patient factors such as allergies
- Wrong patient, wrong dose

Strategies To Reduce Prescribing Errors:

- Avoid illegible handwriting
- Write complete Information
- Look at Patient-Specific Information
- Do Not Use Abbreviations

10. Improving Medication Safety

Strategies To Reduce Dispensing Errors:

- Standardized concentrations for all IV medication
- Use commercially prepared solutions
- Dispense a unit of use

Strategies To Reduce Administration Errors:

- Be familiar with the institution policy
- Preprinted & standardized infusion rate charts
- Use programmable infusion device

Which Patients Are Most At Risk Of Medication Errors:

- Patients on multiple medications
- Patients with another condition e.g. renal impairment , pregnancy
- Patients who cannot communicate well
- Patients who have more than one doctor

Ways to make medication use safer:

- Use generic names where appropriate
- Learn and practice collecting complete medication histories
- Know the high-risk medications and take precautions
- Communicate clearly
- Remember the 5 Rs when prescribing and administering

10. Improving Medication Safety

Remember the 5 Rs when prescribing and administering:

- Right Patient
- Right Medication
- Right Route
- Right Time
- Right Dose