**Patient safety**

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**Patient safety incidents**

These are preventable events that may cause unnecessary harm to the patient. Patient safety has become a will established healthcare discipline with structured approaches which guarantee that all affected patients are cared for and informed. This approach is supported by a process of analysis and learning to uncover the reason and prevent recurrence of such adverse events and providing solutions for the future.

**Classification of patient safety incidents**

1. **Adverse event.** This is an incident that leads to patient harm.
2. **Near miss.** This is an incident which could have caused unaccepted consequences but did not occur, either by chance or by preventing the occurrence of the event in appropriate time.
3. **No-harm event.** This is an incident which occurs but did not harm the patient.

**Common causes of adverse events in healthcare**

The most common factors that result in patient safety incidents are inadequate communication between the members of medical staff or between medical staff and the patients or the members of the patient family.

**Causes of patient safety incidents**

1. **Human factors**

* Inadequate patient evaluation.
* Delay or error in the diagnosis.
* Inappropriate use or interpretation of investigations.
* Error in doing an investigations, procedure, or treatment.
* Inappropriate follow up or monitoring of the treatment.
* Lack of experience.
* Work over load and pressure of time.
* Psychological or personal reasons (e.g. depression or drug abuse).
* Variation in patient and environment of the work place.

1. **System failures**

* Inadequate communication between the medical staff.
* Inadequate levels of medical staff.
* Shut down of the reporting systems.
* Inadequate coordination between the staff at the handovers.
* Similarities between the drugs.
* Environment infrastructure and design.
* Failure of the equipment, due to the lack of parts or skilled expertise.
* Policies of cost-cutting taken by the health institute.
* Inappropriate reporting systems of the incidents in patient safety.

1. **Medical complexity**

* A new advanced technologies (e.g. robotic surgery).
* Side effects and interactions of medications.
* Place of work (emergency room, operating theatres, intensive care unit)

**Patient safety incidents**

The anticipation of the situations that are likely to lead to patient safety incidents is imperative to identify the areas where preventative action should be taken. The near misses result in minor injury and with time to a major injury. Therefore, the near misses incidents give the best idea about the reliability of the safety systems. It is important to report all near misses, and adverse events to built and maintain defenses against the adverse events, which can help use to learn from mistakes constantly.

**Patient safety in the real working conditions**

**Communicating openly with patients and obtaining consent**

Good communication with the patients is associated with an optimal treatment outcomes and fewer mistakes while poor communication is the most common reason for taking legal actions by the patients. Therefore, it is important to respect the patient right to make decisions about their treatment. Explaining the possible complications of a procedure is a crucial part of good communication with the patient. It needs the experience to explain the possible harm so that it is well understood because of the variation in the understanding and perception of the patients. When obtaining consent for surgery, the surgeons must provide complete information for the patients to understand the outcomes of the various treatment options. The hospitals make signed consent mandatory for the purposes of defending claims. The patients should make these informed decisions without manipulation or enforcement. Consent should be taken by the surgeon who has the experience to perform the procedure and it should be obtained when the patient is completely aware, particularly in the non-emergency situation. Honest communication with patients or open disclosure after an adverse event includes a complete explanation to the patient of what happened, the possible complications, and what will be done to fix the adverse event. Safe patient care includes optimal patient care after the adverse event, ensuring that the adverse event does not occur again.

**The required information when obtaining the consent**

* Details and accuracy of the diagnosis.
* The goals and details of the planed procedure.
* The possible complications of the planed procedure.
* The possible prognosis.
* Other treatment options, including the not to treat option.
* Explanation of the advantages and possibility of success for each option.
* The name of the responsible surgeon.
* At any time, the patient can change his or her mind.

**Professional behaviour**

Professionalism is a crucial part of patient safety. This includes the medical staff attitudes and behaviors which give the best interests of the patient beyond and above any other considerations.

**Reporting adverse events and near misses**

For many reasons, the adverse events and near misses going unreported due to the potential for litigation and fear of blame. Complaints from the patient will highlight a problem that, when analyzed, it gives the chance to reduce the adverse events and near misses. Inappropriate communication with the patients is usually the reason for complaints and ability to manage the patient complaints is a crucial aspect of providing optimal healthcare. Patient advocacyunits can help in resolving the complaints by the provision of information, mediation, and conciliation meetings between the parties.

**Communication between the medical staff**

Good communication, optimal team work, and continuity of patient care decrease the errors and improve the health care. On the other hand, inadequate communication can result in wrong information to the staff and patients, failures to follow up on investigation results, delays in diagnosis, treatment, and discharge. The stress, mental fatigue, and tiredness in the place of work are significant risks to the patient safety in healthcare. Clear evidence indicates that tiredness associated with errors in medical practice. Anxiety, depression and confusion, all negatively impact on the performance of clinician. Health institutions and individuals each have the responsibility for managing working environments to reduce the stress and fatigue.

**Prescribing safely**

Administration of drugs is common in surgical practice and patients are susceptible to mistakes in the ordering, and administration of drugs. Unfortunately, the medication errors are still common despite taking precautions for many reasons which include:

* Inadequate clinical evaluation.
* Inadequate information about the drugs.
* Errors in the calculation of the dose.
* Unclear hand writing.
* Confusion in the name of the patient or mixing up of drugs.

**Patient safety and the surgeon**

More than one cause of adverse events can be applied to many aspects of patient care during the perioperative period. The adverse events in the surgical practice that can potentially be committed by the treating surgeons in the patients care includes:

* Prophylaxis errors.
* Prescription errors.
* Parenteral administration errors.
* Awareness of situation, and teamwork errors.
* Diagnostic and management errors.
* Resuscitation errors.
* Procedure technique and operative errors.

**Situation awareness – identifying teamwork errors**

Operating theater is a complex cultural, social, and political structures. Such complex environment requires systems to prevent the occurrence of the error by improving workplace readiness and incorporating defenses that decrease human error or minimise its complications. All staff of operating theatre should follow protocols that help in safe approach for patients care. Well recognized and potential catastrophic errors in operating theater most commonly occur due to the lack of communication:

* The wrong patient was taken to the operating room.
* Wrong site or side of surgery.
* Wrong procedure or surgery.
* Communication failure about changes in the condition of the patient.
* Retained swabs or instruments.

**Checklists**

Checklists in the operating theatre are a standard protocols for patient safety. The use of a perioperative surgical safety checklist was associated with a reduction in major complications. Checklists are reminders of what to do at some point but the surgeon should do maximum efforts to achieve safer, and optimal quality of patient care.

1. **Sign in** (before induction of anaesthesia): This include confirmation of patient identity, site and nature of procedure, obtaining consent, marking the site of procedure, complete anaesthesia safety check (functioning pulse oximeter on patient, check for known allergy, risk for difficult airway or aspiration with available equipment and assistance, risk of blood loss more than 500ml with adequate intravenous access and fluids are available).
2. **Time out** (before skin incision): All team members must introduce themselves by name and role, nurse verbally confirm the identity of the patient, site and nature of the procedure, anticipated critical events (surgeon should mention what are the critical steps, duration of the procedure, expected blood loss- anesthesia team should mention any patient-specific concerns- nursing team should review the sterility been confirmed, equipment is available, any issues or any concerns, antibiotic prophylaxis has been given within the last 60 minutes, essential imaging is displayed).
3. **Sign out** (before the patient leaves the operating room): Nurse should confirm verbally with the team the name of the procedure recorded, the instrument, sponge and needle counts are correct, and any equipment problems to be addressed. The surgeon, anesthesia professionally and nurse review the concerns for recovery and management of the patient and the specimen is labeled including the patient name.

**Technical and operative errors**

During the conduct of the operation, a specific action results in an error, such as the inadvertent cutting of the ureter during right hemicolectomy or bile duct injury during cholecystectomy. Central to surgical practice is the experience which is an acquired by sound teaching, repetition, and practice by which the surgeon performs the surgical procedure with optimal outcomes. The transition of the surgeons in their experience from one state to the higher state is described as the ‘learning curve’. Failures in surgical technique include:

* Judgement errors (e.g. failure or late decision making to convert difficult laparoscopic into an open surgery).
* Technical errors (steps of surgical procedure are not followed or omitted)
* Aggressive handling of tissues that result in tissues damage.
* Misinterpretation (this is unique to minimally invasive surgery due to the misreading of a two-dimensional image)
* Misuse of surgical instruments (e.g. diathermy)
* Missed iatrogenic injury (e.g. bile duct injury or bowel perforation)

**Ethical aspect of surgery**

**Informed consent**

The appropriate and accurate information should be given to the patient in order to obtain a valid consent. Obtaining the informed consent from patients should happen in situations that are designed to maximize the chances of patients understanding his condition and the proposed treatment, and giving them an opportunity to express anxieties and to ask questions. Where possible the following are important when obtaining the consent such as a quiet place for discussion, write the consent in the language of the patient in addition to diagrams when appropriate to supplement the verbal communication. Enough time and help should be given to the patients to take their own decision and the person who is obtaining the consent should be the surgeon who is going to perform the surgery. Junior member of medical staff may not have enough experience to counsel the patient appropriately. Adequate communication skills are very important for obtaining the informed consent for surgery. It is important to know if the patient has understood what has been stated, provision of translators for patients with a different language, asking the patients if they have further questions. The following are important information when obtaining the informed consent:

* The surgical problem and the reasons why it needs surgery.
* The proposed surgical procedure and how it might treat the surgical problem.
* The expected complications of the proposed surgery.
* The anticipated prognosis.
* The alternative and potentially successful treatments.
* The consequences of no treatment at all.

**Confidentiality**

The respect of the patient’s autonomy should extend to the control over their confidential information. Surgeons must respect the privacy of the patients, not communicate the information of treatment to anyone else without patient consent. The surgeons must not discuss the clinical condition of the patient with employers, family, relatives, friends, and others without clear agreement from the patient. Breaches of confidentiality will undermine the trust between the surgeon and the patient on which successful surgery depend and abuses the human dignity.