Internship Training at Yashoda Superspeciality Hospital

By

Dr. Parul Lathwal

PGDHM

2012-2014

International Institute of Health Management Research

Internship Training

At

Yashoda Superspeciality Hospital

Patient Safety Practices at Yashoda Superspeciality Hospital

By

Dr Parul Lathwal

Under the guidance of

Dr. A. K. Agarwal

Post Graduate Diploma in Hospital and Health Management

2012-14

International Institute of Health Management Research
New Delhi

Certificate of Approval

The dissertation titled "Patient Safety Practices at Yashoda Superspeciality Hospital

" at "Yashoda Superspeciality Hospital is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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Dr. A K Agarwal

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Signature

YASHODA
SUPERSPECIALITY HOSPITALS

NABH
ACCREDITED

(Completion of Dissertation from Yashoda Superspeciality Hospital)

The certificate is awarded to

Parul Lathwal

In recognition of having successfully completed her
Internship in the department of

Administration

and has successfully completed her Project on

Patient Safety Practices

1th February, 2014 – 28th April, 2014

Yashoda Superspeciality Hospital

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him/her all the best for future endeavors

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FEEDBACK FORM

Name of the Student: Dr. Parul Lathwal

Dissertation Organisation: Yashoda Super speciality hospital.

Area of Dissertation: Administration.

Attendance: Full.

Objectives achieved: Yes.

Deliverables: Patient Care Manager

Strengths: Hard Working, sincere, efficient.

Suggestions for Improvement: Communication Skills.

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

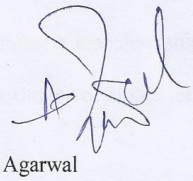
Date: 28/4/14
Place: Ramshambri.

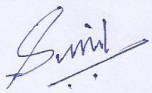
Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Parul Lathwal** a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. He/ She is submitting this dissertation titled "Patient Safety Practices at Yashoda Superspeciality Hospital

" at "Yashoda Superspeciality Hospital" in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.





Dr. A. K. Agarwal
Dean
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Dr. Sunil Dagar
General Manager
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TO WHOMSOEVER MAY CONCERN

This is to certify that Parul Lathwal student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at Vasheda Superspeciality Hospital from 1 Feb 2014 to 28 April 2014

The Candidate has successfully carried out the study designated to her during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements. I wish her all success in all his future endeavors.

Dr. A.K. Agarwal
Dean, Academics and Student Affairs
IIHMR, New Delhi

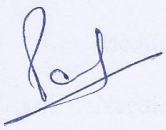
Name of mentor

IIHMR, New Delhi

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Patient Safety Practices at Yashoda Superspeciality Hospital** and submitted by **Dr.Parul Lathwal** Enrollment No. **PG/12/059** under the supervision of **Dr. A.K.Agarwal** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 4th Feb 2014to 28 April 2014.embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.



Signature

Contents

ABBREVIATIONS

ID NO	:	Identification Number
KCL	:	Potassium Chloride
MgSO4	:	Magnesium Sulphate
CCU	:	Coronary care unit
CTVS	:	Cardio- Thoracic vascular Surgery
ICU	:	Intensive care unit
MICU	:	Medical Intensive care unit
WHO	:	World Health Organisation
HDU's	:	High Dependency unit
H&P	:	History and physical
HAI	:	Hospital acquired infection
HCAI	:	Health care associated Infection
F&B	:	Food and beverages
PPE	:	Personnel protective equipment
HCV	:	Hepatitis C Virus
HBs	:	Hepatitis B surface
HIV	:	Human immunodeficiency virus
HbsAg	:	Hepatitis B virus antigen
CSO	:	Chief security officer.
H.K	:	Housekeeping
AC	:	Air conditioning
MRI	:	Magnetic Resonant Imaging
CT	:	Computer Tomography
RSO	:	Radiation Survey officer

Executive Summary

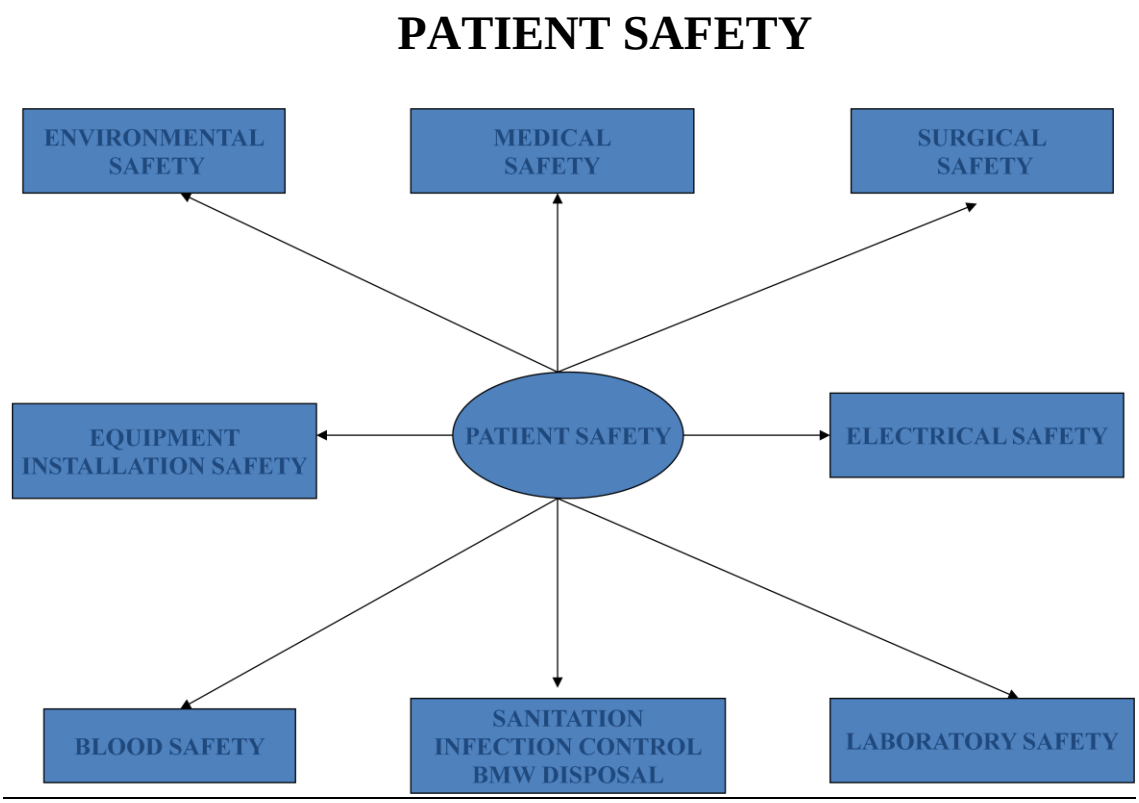
Patient safety is the prevention of errors and adverse effects to patients associated with health care.

While health care has become more effective it has also become more complex, with greater use of new technologies, medicines and treatments. Unexpected and unwanted events can take place in any setting where health care is delivered (primary, secondary and tertiary care, community care, social and private care, acute and chronic care). Every 10th patient experiences preventable harm or adverse events in hospital, causing suffering and loss for the patient, their families and health care providers, and taking a high financial toll on health care systems. Safety is part of the quality agenda and therefore a dimension of the quality culture, requiring broad commitment from both the organization and the community.

Patient Safety involves assessing how patient could be harm preventing and managing harm and implementing solutions to minimize the likelihood of recurring.

Harm can occur due to any reason i.e external or internal so each and every aspect of patient safety is considered and planning is done taking care of all matters.

Introduction



WHAT IS SAFETY

S – Sense the error

A – Act to prevent it

F – Follow Safety Guidelines

E – Enquire into accidents

T – Take appropriate remedial measure

Y – Your responsibility

Patient safety is a new healthcare discipline that emphasizes the reporting, analysis, and prevention of medical error that often leads to adverse healthcare events. The frequency and magnitude of avoidable adverse patient events was not well known until the 1990s, when multiple countries reported staggering numbers of patients harmed and killed by medical errors. Recognizing that healthcare errors impact 1 in every 10 patients around the world, the World Health Organization calls patient safety an endemic concern.

It is now recognized that patient safety is a national health care issue deserving of concentrated efforts aimed at reducing those system failures and medical errors that lead to adverse events and preventable injuries and deaths. patient safety has emerged as a distinct healthcare discipline supported by an immature yet developing scientific framework. There is a significant transdisciplinary body of theoretical and research literature that informs the science of patient safety.

Taxonomy of Patient Safety

- Adverse Event
- Patient Safety
- Error
- Near Miss
- Sentinel Event
- Patient Safety Solution

Adverse Event: Defined as an injury caused by medical management rather than by the underlying disease or condition of the patient.

Patient Safety is defined as the freedom from accidental injury due to medical care or from medical error.

Error: Failure to carry out a planned action as intended or application of an incorrect plan.

Near Miss: An incident that did not cause harm.

Sentinel Event: An unexpected occurrence, involving death or serious physical or psychological injury or the risk thereof. Serious injury specifically includes loss of limb or function. The phrase "risk thereof" includes any process variation for which a recurrence would carry a significant chance of serious adverse outcome.

Patient Safety Solutions are defined as any system design or intervention that has demonstrated the ability to prevent or mitigate patient harm stemming from the processes of healthcare.

Causes of healthcare error

The simplest definition of a health care error is a preventable adverse effect of care, whether or not it is evident or harmful to the patient. Errors have been, in part, attributed to:

Human Factors

- Variations in healthcare provider training & experience, fatigue, depression and burnout.
- Diverse patients, unfamiliar settings, time pressures.
- Failure to acknowledge the prevalence and seriousness of medical errors.

Medical complexity

- Complicated technologies, powerful drugs.
- Intensive care, prolonged hospital stay.

System failures

- Poor communication, unclear lines of authority of physicians, nurses, and other care providers.
- Complications increase as patient to nurse staffing ratio increases.
- Disconnected reporting systems within a hospital: fragmented systems in which numerous hand-offs of patients results in lack of coordination and errors.
- Drug names that look alike or sound alike.
- The impression that action is being taken by other groups within the institution.
- Reliance on automated systems to prevent error.
- Inadequate systems to share information about errors hamper analysis of contributory causes and improvement strategies.
- Cost-cutting measures by hospitals in response to reimbursement cutbacks.
- Environment and design factors. In emergencies, patient care may be rendered in areas poorly suited for safe monitoring.

Infrastructure failure

. According to the WHO, 50% of medical equipment in developing countries is only partly usable due to lack of skilled operators or parts. As a result, diagnostic procedures or treatments cannot be performed, leading to substandard treatment.

The Joint Commission's Annual Report on Quality and Safety 2007 found that inadequate communication between healthcare providers, or between providers and the patient and family members, was the root cause of over half the serious adverse events in accredited hospitals. Other leading causes included inadequate assessment of the patient's condition, and poor leadership or training.

Common misconceptions about adverse events are:

- Many of the errors are normal human slips or lapses, and not the result of poor judgment or recklessness.
- "High risk procedures or medical specialties are responsible for most avoidable adverse events". Although some mistakes, such as in surgery, are easier to notice, errors occur in all levels of care. Even though complex procedures entail more risk, adverse outcomes are not usually due to error, but to the severity of the condition being treated. However, USP has reported that medication errors during the course of a surgical procedure are three times more likely to cause harm to a patient than those occurring in other types of hospital care.
- "If a patient experiences an adverse event during the process of care, an error has occurred". Most medical care entails some level of risk, and there can be complications or side effects, even unforeseen ones, from the underlying condition or from the treatment itself.

Hospital Profile

Yashoda Super Specialty Hospital is a tertiary care hospital with focus on providing world class and holistic healthcare services with excellence in multi specialties to treat patients with respect, compassion, dignity and ensuring their safety by complying with all legal requirements & significant environmental aspects to maintain adherence with NABH standards through continuous quality improvement.

Yashoda Superspeciality Hospitals, Ghaziabad is a name synonymous with advance and world class patient care in NCR of Delhi. Having a humble beginning around 20 years ago at Nehru Nagar, Ghaziabad, the institution has now grown to become a major tertiary care healthcare provider to all walks of life in the region. Presently, Yashoda Superspeciality Hospitals operate from two locations, Nehru Nagar with 300 beds and Kaushambi with 100 beds in Ghaziabad which are easily accessible by road and rail.

Yashoda Superspeciality Hospitals has been pursuing the aim to deliver world-class patient care services in a comprehensive manner to every individual with an emphasis on quality, service excellence, empathy and respect. In all its endeavors, it continuously strives to upgrade its facility and equipments to match world class standards and consistently investing to make available latest medical technologies. In addition to all general specialities, it has varied range of Superspeciality. It also has state of the art world class seamless operation theatre complex with HEPA filters and laminar flow. Both the institutions have constant support from well qualified and professional Consultants, Residents, Nurses, Technicians, Administrative and Support staff. The hospitals have well equipped critical care units and haemodialysis facility. The hospitals have its own fleet of ambulances including ICU ambulances for transportation of critically ill patients.

Both institutions have advanced diagnostic facilities including CT Scan, Ultrasonography, Mammography, Routine Radiology, ECG, EEG, NCV & EMG, TMT, ECHO, Colour Doppler, Helter Monitoring, PFT, Diagnostic Endoscopy. Fully Automated pathology, Microbiology, Cyto & Histopathology. In addition, Nehru Nagar centre has MRI and Nuclear Medicine facility. Both institutions have Blood Banks and Component services. Nehru Nagar, in addition has Aphaeresis Unit.

Yashoda Superspeciality Hospital, Kaushambi became operational in the year 2006 with 100 beds to cater for the healthcare needs of the population residing in the area adjoining Delhi. The facility was created to provide comprehensive medical care under one roof while maintaining the highest standards of medical excellence.

Yashoda Superspeciality Hospitals have designed comprehensive preventive healthcare packages covering the varied requirements of all age groups. The Health check-up packages are flexible enough to accommodate the specific requirements and can be tailor made to suit particular organization. It also provides pre-employment health checks at affordable costs.

Yashoda Superspeciality Hospitals are an ISO 9001: 2008 certified organizations and Kaushambi has been accredited with the highest recognition for hospitals in India from

NABH. The institution has carved a niche in short span of time and is rendering yeomen services to the community.

Mission & Vision

Yashoda Super Specialty Hospital commits itself to provide efficient, effective, timely and user-friendly healthcare to its patients, through best Medicare practices in a clean, healthy and rejuvenating environment.

Vision Statement

To create a comprehensive and integrated world-class healthcare facility with best clinical practices and cutting edge technology with compassionate patient care.

Mission Statement

To deliver world-class patient care services in a comprehensive manner to every individual with an emphasis on quality, service excellence, empathy and respect.

Our Values

- CARE & CONCERN for Our Patients & Their Loved Ones
- COMMITMENT towards Learning & Team Work
- INTEGRITY in Our Internal Energies
- EXCELLENCE through Sincere Efforts and Skilful Execution

Quality Policies & Standards

QUALITY POLICY

Yashoda Super Specialty Hospital is a tertiary care hospital with focus on providing world class and holistic healthcare services with excellence in multi specialties to treat patients with respect, compassion, dignity and ensuring their safety by complying with all legal requirements & significant environmental aspects to maintain adherence with NABH standards through continuous quality improvement.

QUALITY OBJECTIVES with SERVICE STANDARDS

- To focus on Quality of patient care.
- To improve the performance of all professionals in patient care.
- To monitor, measure, assess and improve performance and to enhance patient satisfaction.
- To guard, measure and improve patient safety.
- To inculcate an excellent hygienic treatment process.
- To involve all employees to participate in improving Quality.

To search for pattern of non-compliance with goals, objectives & standards through

a. Problem identification
b. Problem assessment
c. Finding the root cause
d. Solution Generation
e. Plan for the solution implementation
f. Implementation of corrective action
g. Monitoring

MAJOR SERVICES OFFERED –

- Internal medicine
- Nephrology
- Urology
- Gastrology
- General pediatrics
- Gynecology & obstetrics
- Memosurgery
- Ophthalmology
- Pediatrics surgery
- Cardiac surgery
- Anesthesia
- Centre for Infectious Diseases
- Interventional Radiology
- Clinical Psychology
- Cosmetic Surgery

- Diabetology
- Dental medicine
- Dermatology
- Endocrinology
- Ear, nose and throat

International Patient Services

Yashoda Super Specialty Hospitals acknowledges that International Patients have special needs and requirements. In order to provide a highly specialized service, we offer seamless patient services of world-class quality. From the warmth of our greeting at the airport, to your registration and discharge, we have created an unparalleled service at our hospitals in DELHI NCR.

Our Services include:

- Airport transfer Service
- Scheduling of all medical appointments
- Coordination of the admissions process
- Cost estimates for anticipated treatment
- Processing of medical second opinions
- Provide Language Interpreters
- Special dietary needs / religious arrangements
- Foreign Exchange
- Providing news & information of patient's relatives back home
- Billing & Finance Related Services

Different Room Categories in IPD:

1. Super Deluxe Room
2. Deluxe 1 Room
3. Deluxe Room
4. Semi Deluxe
5. Private Single Room
6. Semi Private Room
7. General/ Economy
8. ICU/ Step Down
9. Nursery- Level 1

10. NICU
11. Isolation

Ward – A

- Total number of beds-11
- Super Deluxe- 1
- Deluxe- 4
- Semi-Deluxe- 3
- Private- 1
- Semiprivate- 2

Ward – B

- Total number of beds-11
  - Private-2
  - Semi-Private-4
  - Economy-5

Ward –C

- Total number of beds- 10
- Private- 7
- Semi-private- 2
- Isolation- 1

Ward- D

- Total number of beds- 10
- Private -6
- Semi Private- 4

ICU

- Total number of beds-15

NICU

- Total number of beds- 15

Emergency

- Total number of beds- 05

Post-Operative

- Total number of beds- 5

Male General Ward

- Total number of beds- 15

Female General Ward

- Total number of beds-12

AIMS & OBJECTIVES

- To assess the methods of identifications of patient prior .to any tests, procedure or surgery.

- To orient them to hospital environment properly by providing in-patient guide and assistance from all disciplines.

- To assess the methods of controlling and preventing infection in the hospital.

- To study the medication policies and restricted usage antibiotics in the Hospital.

- To study the various Disaster codes and methods of activation of the staff.

- To study various fire detection system and devices and mode of preventing patients in case of fire ,

- To identify various precautions and safety measures taken by the dietary department.

- To study the nutritional management programme of the patients.

- To study the roles & safety measures taken in Emergency Triage.

- To study the patient safety measures taken in radiology department.

REVIEW OF LITERATURE

- The Hospital Manual.
- The Hospital Safety Manual.
- The Hospital Infection control Manual.
- The Hospital Radiation Manual.
- The Hospital ICU Manual.
- The Hospital Laboratory Manual.
- JCI Patients Safety Goals

Rationale of Study

Patient safety is a serious global public health issue. In recent years, countries have increasingly recognized the importance of improving patient safety. In 2002, WHO Member States agreed on a World Health Assembly resolution on patient safety.

Estimates show that in developed countries as many as one in 10 patients is harmed while receiving hospital care. The harm can be caused by a range of errors or adverse events.

In developing countries, the probability of patients being harmed in hospitals is higher than in industrialized nations. The risk of health care-associated infection in some developing countries is as much as 20 times higher than in developed countries.

At any given time, 1.4 million people worldwide suffer from infections acquired in hospitals. Hand hygiene is the most essential measure for reducing health care-associated infection and the development of antimicrobial resistance.

At least 50% of medical equipment in developing countries is unusable or only partly usable. Often the equipment is not used due to lack of skills or commodities. As a result, diagnostic procedures or treatments cannot be performed. This leads to substandard or hazardous diagnosis or treatment that can pose a threat to the safety of patients and may result in serious injury or death.

In some countries, the proportion of injections given with syringes or needles reused without sterilization is as high as 70%. This exposes millions of people to infections. Each year, unsafe injections cause 1.3 million deaths, primarily due to transmission of blood-borne pathogens such as hepatitis B virus, hepatitis C virus and HIV.

Surgery is one of the most complex health interventions to deliver. More than 100 million people require surgical treatment every year for different medical reasons.

Problems associated with surgical safety in developed countries account for half of the avoidable adverse events that result in death or disability.

Industries with a perceived higher risk such as aviation and nuclear plants have a much better safety record than health care. There is a one in 1 000 000 chance of a traveller being harmed while in an aircraft. In comparison, there is a one in 300 chance of a patient being harmed during health care.

Patients' experience and their health are at the heart of the patient safety movement. The World Alliance for Patient Safety is working with 40 champions – who have in the past suffered due to lack of patient safety measures – to help make health care safer worldwide.

METHODOLOGY

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- Nature Of Study- Descriptive
- Research Area- Yashoda Hospital
- Research Time Duration- 3 month approx.
- Sample Size- Patients admitted to IPD
- Data Collection Technique- Secondary Data

INTERNATIONAL PATIENT SAFETY GOALS

1. Identifying patient correctly

All staff must check at least two identifiers to verify a patient's identity.

- Registration number (RN) and IP Number which is a unique identifier for every patient and remains the same throughout the treatment history of the patient.
- The patient's name.

A patient must never be identified from his bed number or ward number or by jut name.

Patient should be identified before/at the time of :

- Drug administration
- Phlebotomy
- Blood transfusion
- Surgical intervention
- Before marking the site for any surgical intervention
- Serving of food and beverages etc.
- Patient identification process by use of colored ID bands increases accuracy and decreases errors.
- The ID band must not be removed until discharge procedure is completed. At the time of discharge (after completion of all formalities) at band is to be cut by sister in-charge/charge nurse.

- For outpatients : name, date of birth (compared with bill, request form, prescription form and donor card)
- For emergency (unconscious patients): Unknown 1, 2 and ID Number.

2. To Improve effective communication

- Implement a process/procedure for taking verbal or telephone orders or for the reporting of critical test results that requires a verification "read-back" of the complete order or test result by the person receiving the information.
- Identify yourself, site/unit, role in care team (doctor/nurse/technician)

- Identify the patient by CRN, name, date of birth, age and sex
- Describe reason for phone call/ concern or current status of the patient-if urgent say so

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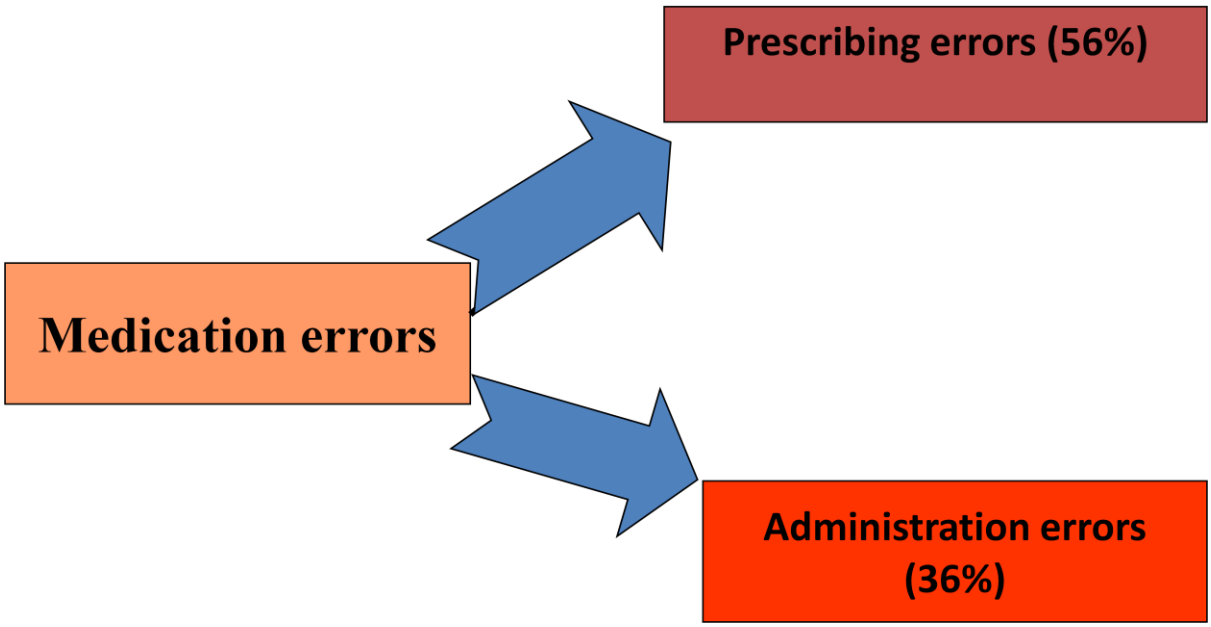
3. To improve the safety of High alert medications



Medication errors are defined as ‘‘any preventable event that may cause or lead to an inappropriate medication use or patient harm while in the control of the health care professional, patient or consumers"

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- Types of medication error

PRESCRIPTION	Omission of: • drug name • drug formulation • route • dose	• dosing regime • date • signature • treatment time of antibiotics
TRANSCRIPTION	Discrepancy in: • drug name • drug formulation • route • dose	• dosing regime • omission of drug • unordered drug • wrong documentation

DISPENSING	• Unordered drug (wrong drug) • unordered dose	• omission of dose • wrong dose • wrong drug formulation
ADMINISTERING	• Wrong Patient • Wrong Drug • Wrong Dose and /or Frequency • Wrong Form • Wrong Technique	• Wrong Route • Wrong Rate • Wrong Time • Wrong Preparation • Wrong delivery (dose not delivered directly to the patient
OTHERS	• Allergy Information missing • Administered but not documented • Drug Expired	• Inadequate/Inappropriate Monitoring • Extra dose given on over dose • Improper Storage • Misinterpretation of verbal order

- Categorization of Medication Error from Near Miss to No Harm & Adverse Event

CATEGORY	DESCRIPTION	EFFECT
CATEGORY A	An error occurred that **may have the capacity** to cause error	**No Error**
CATEGORY B	A error occurred but the error did not reach the patient	**Error, but No Harm**
CATEGORY C	An error occurred that reached the patient but **did not cause patient harm**	**Error, but No Harm**
CATEGORY D	An error occurred that reached the patient and **required monitoring** to confirm that if resulted in no harm to the patient and/ or required intervention to preclude harm.	**Error, but No Harm**
CATEGORY E	An error occurred that may have contributed to or resulted in **temporary harm** to the patient and required intervention.	**Error + Harm**
CATEGORY F	An error occurred that may have contributed to or resulted in **temporary harm** to the patient and required initial or prolonged hospitalization.	**Error + Harm**
CATEGORY G	An error occurred that may have contributed to or resulted in **permanent patient harm**.	**Error + Harm**
CATEGORY	An error occurred that require **intervention necessary to**	**Error + Harm**

H	**sustain life**.	
CATEGORY I	An error occurred that may have contributed to or **resulted in the patient's death.**	**Error + Death**

In case of medication error, report and document it so that RCA and CAPA can be done.

This policy is followed all over the hospital in order to reduce medication errors which are likely to cause temporary or permanent harm to the patient.

- All drug orders are written in legible, capital letters only by the doctor in the drug charts.
- All discontinuation of drugs are done by drawing a line in front of the last dose administered with sign, date and time.
- All discontinued medications are highlighted in the drug charts.
- All new orders or discontinued orders are signed, dated and timed.
- All wrong drug entries are crossed out by a single line and are dated and initialed.
- All orders are lead by Zeroes .for decimal points (T. Digoxin 0.25mg).
- Uses of only standardised abbreviations are allowed.
- Follow 6 "R" of medication policy
  - right patient
  - right drug
  - right dose
  - right time
  - right method
  - Right documentation.

- Narcotic drug are kept under double lock and key.
- Narcotic drug resister is maintained.
- 2 nurses sign for all high risk medications.
- All medications are given at standard administration timings unless written as stat orders.

- Self medications are not allowed except inhalers, eye drops and that too under supervision.
- All medicines are kept under lock in bedside cabinets.

High Risk medications that are considered are mentioned and that the baseline investigations should precede there administration:

Potassium: No stocking on the floor in any form.

Phenytoin Sodium: Given by doctor under ECG cover.

Aminophyllme: Only by infusion device

Narcotics: Only in presence of 2 sisters and sign on the drug chart.

IV Iron: Only after test dose and in presence of doctor

Magnesium: Only by infusion device.

Anticoagulants: To keep a regular watch on coagulation profile and bleeding.

Safe & Rational Prescription of Medication

- Minimum Requirements of Prescription:

  Name of Patient

  Name of doctor

  UHID

  Name of drug (Legible)

  Right Route

  Right dose (numeric unit)

  Frequency of administration of medicine

  Name, Signature of prescriber, Date
- Known drugs to be mentioned on prescription after ascertaining
- Minimum MBBS degree holder doctor can prescribe a medicine.
- Medication Orders are written on OPD Consultation Form, Clinical Progress Notes, and Medication Chart.
- Medication Orders to be written in Clear & legible manner (preferably in block letters) with named, signed, dated & timed.
- Medication orders contain name of medicine, route of administration, dose to be administered and frequency/ time of administration.

4. Ensure correct site, Correct Procedure, Correct Patient Surgery

a. A registered nurse will identify the patient:

- On arrival in the pre-op area
- On arrival in the procedure room or operating room
- On arrival in Recovery room

b. Identification of a patient is achieved: Patient identified using reference to UHID (registration Number) & IP/ OP number.

- For responsive patients, by:
- Asking his/her first & last name
- Comparing the details with the patients case sheet.

For non-responsive patients (e.g. infant, comatose patient), by:

- Asking a family member or significant other than the patient.
- Reviewing the patient's medical record if a family member or significant other is not available.

- Comparing these findings with the patient medical records.

Surgical Site Marking

a. Where practical, the surgical incision site(s) or area will be marked when procedures involve right/left distinction, multiple structures (such as, fingers and toes), and levels (as in spinal procedures).

b. The area will be marked using an indelible marker for the correct site/side.

c. For hospital inpatients:

- The surgeon obtaining the informed consent will mark the correct site with the word at the time the consent is signed.
- On the evening before surgery, the unit nurse will verify that the surgical site is marked. If it has not been marked, the physician involved with the surgery will be notified.
- The unit nurse completing the Pre- Operative Checklist must verify that the site of surgery has been marked. If it has not been marked, the physician involved with the surgery will be notified. If the physician is not available to mark the site, the nurse will notify the appropriate operating room.
- In the Preoperative Holding Area, the nurse checking in the patient will, after identifying the patient, verify that the operative site/side has been marked and is in agreement with:

- The statement of patient, family member or significant other.
- The medical record including imaging studies, if available, informed consent, history and physical examination report.

d. For patients being admitted for Day Care Surgeries, a surgeon who will be involved with the surgery should mark the surgical site on the morning of surgery. If the surgeon is not available, the nurse caring for the preoperative patient will:

- Review the surgery schedule for the procedure and site/side of surgery.
- Interview the patient, family member or significant other, confirming the patient's identity.
- Review the medical record (i.e. consent, Pre Procedure Assessment, history and physical and imaging studies, if applicable).
- Mark the correct surgical site using indelible ink in a manner that will allow the mark to still be seen once the patient is prepped and draped.

NOTE: The nurse marking the patient must be the same RN who verified that the, surgery schedule, statement of the patient or family member or significant other, and the medical record are in agreement.

In the OR, the circulating nurse will:

- Review the surgery schedule.
- Identify the patient
- Confirm that the site/side of surgery has been marked.
- Review the medical record (informed consent, and history and physical) for type and site/side of surgery.
- Verify with the patient, parent or guardian (if present) that the procedure and site/side of surgery to be performed agree with the medical record.

TIME OUT

a. In the Operating/Procedure Room, before the incision is made, all members of the surgical team (including the Surgeon(s), Anaesthetist, the Circulating Nurse, and the Scrub Nurse or Technician) will orally and simultaneously verify the correct:

- patient name,
- planned procedure,
- surgical site and side,
- patient position and
- Availability/presence of implants, special equipment, or critical supplies to be required during the procedure.

b. This verbal verification is the "TIME OUT" and occurs immediately prior to incision.

c. Personnel Responsibilities

- All members of the operating team will participate in the TIME OUT.

 The scrub nurse or technician is in a unique position to initiate the TIME OUT and should do so, just prior to handing the knife to the surgeon.

 The circulating nurse is responsible to ensure the TIME OUT is accomplished prior to the start of the operation

 The circulating nurse is responsible for documenting the TIME OUT in the medical record.

DISCREPANCIES:

In the event of any discrepancy in any of the above controls, a surgeon who will be involved in the procedure will be called to evaluate the patient and review appropriate clinical data to ensure that the correct surgical procedure is performed. Questions and concerns will be resolved before starting any procedure.

Reducing the risk of health care associated Infections

A Nosocomial infection is one that is acquired in a hospital or health care facility and was not incubating at the time of admission.

- For bacterial infections the onset of symptoms more than 48 hrs after admission and within 10 days after hospital discharge are defined as Nosocomial or hospital acquired.
- Surgical site infections are considered Nosocomial if the infection occurs within 30 days after the operative procedure or within 1 year if a device or foreign material is implanted. These infections are more prone to spread through infected hands.

  Types of Nosocomial infection:

a. Superficial Incisional surgical site infection:

Infection occurs within 30 days after operation and involves skin or subcutaneous tissues of incision.

1. Purulent drainage from superficial incision with or without laboratory confirmation.
2. Organisms isolated from aseptically collected fluid or tissue from superficial incision.
3. At least one of the signs and symptoms of infection-pain/tenderness, localized swelling and redness.

4. Do not report following as SSI: stitch abscess, episiotomy wound, infected burn wound.

b. Deep incisional surgical site infection:

Infection occurs within 30 days after the operation if no implant is left in place or within one year if implant is in place and infection appears to be related to the operation. Infection involves deep soft tissues (eg: fascial and muscle layers) of the incision.

1. Purulent drainage from deep incision but not from organ/space component of the surgical site.
2. A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs and symptoms –fever>38 deg C, localized pain or tenderness unless culture of the incision is negative.
3. An abscess or other evidence of infection involving the deep incision is found on direct examination, during re-operation or by histopathology or radiologic examination.

c. Organ /space surgical site infections:

1. Purulent drainage from a drain placed through a stab wound into the organ or space.
2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ or space.
3. An abscess or other evidence of infection involving organ or space on direct examination, during r operation or by histopathology or radiologic examination.

II. **Catheter related blood stream infection**

1. Systemic signs of infection
2. Colonisation of more than 15cfu
3. Isolation of same organism from catheter and from a concurrent blood culture of a patient with sepsis syndrome.

III**. Nosocomial Pneumonia:**

1. New or progressing pulmonary infiltrate, fever, leucocytosis and purulent tracheal secretions.

2. Clinical evaluation plus positive quantitative cultures of endotracheal aspirate/PSB/BAL and microscopic examination of recovered cells from fluid.

IV Blood stream infection

1. Blood culture positive for a bacterium/fungus that is obtained in a patient more than 48 hrs after being admitted to the hospital.
2. Clinical sepsis, fever>38 deg C, hypertension and oligouria.

V Urinary tract infection:

1. Clinical signs and symptoms of UTI with a positive urine culture with significant bacteraemia and microscopy

QI	FEB'14	MAR'14	APR'14	APR'11
Percentage of adherence to safety precautions by employee working in diagnostics	**100%**	**94%**	**96%**	**95%**
Re-exploration rate	**NIL**	**NIL**	**NIL**	**NIL**
Percentage of accidental removal of tubes and catheters	**NIL**	**NIL**	**NIL**	**NIL**
Incident of hematoma at puncture site	**NIL**	**NIL**	**NIL**	**NIL**
Percentage of medication errors	**0.2**	**0.2**	**0.3**	**1.3**
Incident of adverse drug reaction	**NIL**	**1**	**1**	**NIL**
Percentage of medication charts with illegible writing over a given period	**NIL**	**NIL**	**NIL**	**NIL**
Percentage of contrast related reactions	**5.88%**	**2.00%**	**2.59%**	**3.28%**
Incidence of falls	**0**	**0.2**	**0**	**1**
Incidence of bed sores after admission	**NIL**	**NIL**	**NIL**	**NIL**
Percentage of employees provided pre-exposure prophylaxis	**98.30%**	**98.35%**	**98.60%**	**99%**
Number of sentinel events	**NIL**	**NIL**	**NIL**	**NIL**
Percentage of near misses analyzed	**NIL**	**100%**	**100%**	**100%**
Number of security related incidents including thefts	**NIL**	**1**	**NIL**	**NIL**
Incidence of needles stick injuries	**0**	**7.1**	**3.2**	**6.6**

Principles Of Standard Infection Control Precautions

a. Hand washing

Hand washing is the single most important measure in infection control. Hand washing should be done:

i. Before and after patient contact.

ii. After using gloves if there is any visible blood stain, secretion etc.

iii. Immediately after contact with blood, body fluids, secretions, excretions, non Intact skin or mucous membranes, and contaminated equipment.

iv. Always wash hands before leaving the ward.

v. Before handling food.

b. Masks

i. No need to be routinely worn.

ii. Any time the healthcare worker anticipates the possibility of being splashed with blood, body fluids, secretions or excretions.

c. Protective Eye wear and/or Face Shields

i. Any time the health care worker anticipates the possibility of being splashed with blood, body fluids, secretions or excretions.

d. Gloves (clean, non sterile)

i. Wear for contact with blood, body fluids, secretions, excretions, mucous membranes, non-intact skin or surfaces soiled with visible blood or body fluids and contaminated equipment and articles.

ii. Gloves should be changed between patients.

e. Plastic Aprons/Gown. Caps, shoe covers, boots

i. For contact with infective material. To protect against transmission of highly transmissible organisms e.g. MRSA.

ii. Any time that clothing is likely to be soiled by splattering of blood, body fluids, secretion and excretions.

f.Handling Needles and Small Sharp

I. DO NOT RECAP NEEDLES.

II. Dispose of used needles and small sharps in puncture-resistant container, which are located as close as possible to the area of use.

III. Needles should not be recapped, bent or broken by hand.

IV. If a needle has to be removed from a syringe, use forceps or do it with utmost care.

V. Do not overfill a sharps container. All sharps containers to be discarded when 3/4^{ths} full.

VI. Sharps should not be passed from one HCW (Health Care Worker) to another. The person using the equipment should discard it. If necessary a tray can be used to transport sharps

e. Cleaning Spills

i. Wear gloves.

ii. Wet the area with liquid detergent and dry carefully using disposable paper towel.

iii. Apply disinfectant appropriate for the size and surface contaminated

f. Patient Placement

i. Place a patient who contaminates the environment with highly transmissible organisms or who does not assist in maintaining appropriate hygiene in a single room.

ii. If a single room is not available, consult Infection Control Team for other alternatives.

General Transfusion Service Guidelines.

i. Hand washing

- Frequent, effective hand washing is the first line of defence in infection control. Blood-borne pathogens of concern generally do not penetrate intact skin, so immediate removal reduces the likelihood of transfer to a mucous membrane or broken skin area or of transmission to others.
- Hands should always be washed:
  - Before leaving a work area.
  - Immediately after coming into contact with blood or other body fluids.
  - Immediately after removing rubber gloves.
  - After using toilet.

ii. Gloves

- The use of gloves by all technicians when cleaning up spills or handling waste materials.
- Transfusion Services
  - Gloves should be worn routinely whenever there is the possibility of exposure to a patient's blood or body fluids (e.g. collecting a therapeutic unit on the wards).
  - Use gloves for any task where blood or body fluids may be encountered if your hands have any cuts, scratches or abrasions.
  - By persons who are receiving training in phlebotomy.
  - When collecting or handling any "open" blood container or specimen.

- When cleaning up spills or handling waste materials.

- General guidelines for the safe use of gloves include:
  - Change gloves immediately if they are torn, punctured, or contaminated; after handling high-risk samples; or after performing a physical examination, e.g., on an aphaeresis donor/patient.
  - Remove gloves by keeping outside surfaces in contact only with outside, and by turning the glove inside out while taking it off.
  - Wash hands with soap or other suitable disinfectant after removing gloves.
  - Do not wash or disinfect gloves for reuse.

iii. Protective Clothing

- Lab coats should be worn at all the time.
- Contaminated clothing should be removed promptly.
- Protective clothing should be removed before leaving the work area and should be placed in a suitable container and laundered as potentially infectious.
- Masks, Safety Glasses, should be worn to protect the eyes and the mucous membranes.
- Handling Needles
  - Dispose of used needles and small sharps in puncture-resistant containers that are located as close as possible to the area of use.
  - Sharps containers are to be sealed and discarded weekly or when they are two thirds full.

- **Cleaning Spills and Decontamination**
  - When spills occur, the following steps should be taken in the order listed:

Minor spill : < 30 cc	**Major spill : > 30 cc**
➲ Place tissue over spill ➲ Put 1% sodium Hypochlorite solution over spill & leave it for 30mins. ➲ Wear nitryl /rubber gloves to pick the spill soaked tissue.	➲ Place tissue over spill ➲ Put 1% sodium Hypochlorite solution over spill & leave it for 30mins. ➲ Cordon off the area by placing near by furniture and deploy a security person for

➢ Place in yellow plastic bag ➢ Place this bag in another yellow plastic bag, and label it as 'Infectious Spill' ➢ Ask housekeeping to mop area. ➢ Fill up an incident form. ▪	the same. ➢ Inform HAZMAT team to clean up. ➢ Fill up an incident form.

a. Transfusion services.

i. Every sample of blood and body fluids should be handled as if potentially infectious.

- Care is to be taken when handling and opening all specimens received in the Blood storage centre.
- Use an appropriate barrier (gloves, gauze, etc.) to prevent splashing when opening any blood sample.
- Hands should be washed immediately after handling patient or donor samples, and/or after removing gloves.
- Protective clothing should be changed if grossly contaminated with any patient or donor specimen.

ii. Even though all commercial human-based Blood Bank reagents have been tested (cells, antisera, etc.), handle them as if they are potentially infectious.

b. Known Infectious Patients

It may be necessary in special circumstances to collect and process blood from a patient known to be at high risk for an infectious agent (e.g. therapeutic procedures):

i. Additional precautions are to be taken, i.e. protective gowns, gloves, masks, and eye shields if necessary.
ii. Complete cleaning and disinfecting of the donor area if the procedure is performed in the Blood Bank.
iii. Complete cleaning and disinfection of all equipment used is to be performed between donor and / or patients and before being returned to routine use.
iv. All disposable materials are to be disposed of immediately.

6. Disinfection of equipment

Re-use instruments, tubing, etc only after decontamination and sterilization.

Do not touch equipment with soiled gloves or gloves used for patient care. Surfaces of large equipment should be disinfected with a 1% dilution of sodium hypochlorite or an approved disinfectant. Heavy soiled equipment may require additional cleaning with detergent and water. Gloves must be worn while cleaning the equipment.

Infection Surveillance Programme for Hospital Acquired Infection (Culture Swab)

Area	**Frequency of visit**
ICU	Daily
Dialysis	Daily
Operating room	Bi monthly
CSSD	Bi monthly
Labour room	Daily
Laboratory	Daily
Emergency	Daily
Waste storage room	Check waste disposalCheck records of waste collection

5. Reduce the risk of patient harm resulting from falls

Any fall of during hospital stay is considered to be major incident. Therefore, vulnerable patients who are at risk of falls and requires extra careful monition.

Reduce risk of harm resulting from patient fall

Fall is loss of upright position that result in landing on the floor, ground or an object or furniture or a sudden, uncontrolled, unintentional, non purposeful, downward

displacement of the body to the floor, ground or hitting another object like a chair or stair.

Levels of fall:

a. From one level to ground level: from beds, wheelchairs or down stairs.
b. On the same level: slipping, tripping, or stumbling, or from a collision, pushing, or shoving, by or with another person.
c. Below ground level: into a hole or other opening in surface.

Prevention of Patient fall:

1. Environmental safety check – look out for the following:
   - Use of cautions signage's
   - Proper illumination
   - Loose electrical cords along pathways
   - Polished slippery floor
   - Wet floor
   - Blind turn, steep ramp
   - Design of furnishing (high height)
   - Functional use call bell and grab bars in washrooms

2. Fall risk assessment – Assess the patient for the following :
   - Patient on medication that causes giddiness/low B/P. examples sedatives, tranquilizers
   - Presence of any musculoskeletal system impairment like osteoporosis, gait problem etc.
   - Impairment mental status-disorientation, confusion
   - Patient on any form of restraint
   - Unsteady gait example ataxia
   - Previous history of fall
   - Reduced vision
   - Acute/ chronic illness
   - Poor footware

3. Ensure safe transportation
   - Proper use of protective -straps in wheelchair, side rails in bed
   - Use adequate assisting device – walkers, wheelchairs, lifts, trolleys etc. for patient transportation process – climbing, reaching, transferring, walking
   - Training in safe transportation

What do to after a patient fall?

- Assess for injuries (e. g. abrasion, contusion, laceration, fracture, head injury)
- Obtain and record sitting/standing vital signs

- Alert physician
- Continuous monitor the patient for any delayed complication of fall
- Document circumstances in medical record
- Complete incident report
- Determine probable cause of fall (history, physical factors, medications, laboratory values)
- Notify all team members of patient fall and develop action plant to prevent repeat fall.

SAFETY OF VULNERABLE PATIENTS

PATIENT SAFETY SCORE (PSC)

This tool is useful in assessing the vulnerability of the patient. This tool is used in all patients in the hospitals except for those in ICU's, HDU's and for children below 16 yrs of age as they are already considered as vulnerable. The indicators/tools that are used in scoring are:

Total Score: $\geq$ 45- High risk, < Low risk.

1. It is done by the sister on admission in the nursing assessment sheet.
2. If score is = or > 45, patient is a vulnerable patient and his re-assessment and documentation is every 48 hours.
3. If SCORE is < 45, patient is not a vulnerable patient and re-assessment is done every 7 days.

These are the group of patients who require utmost care both from the medical as well as from nursing side.

Following criteria of patients fall under group of vulnerable patients:

- Patients Details: Age (<16 and >*65)*, language or hearing barrier, family support, International patient.
- Medications: high risk drugs, No: of drugs(>8), Blood transfusion
- Equipment: Ventilator/BIPAP, Syringe/infusion pump

- Airway: Tracheostomy/ETT, Nasal canula/face mask
- Clinical: High risk disease(DM, Cardiac, Neurological), High risk surgery(Transplant, "cancer, brain, aortic surgery)
- Fall Risk: H/O fall within 1 yr, mobility aid, Gait-dependent, Mental status- disoriented
- All ICU and HDU patients.
- All Patients with PSS of 45 or above.
- All physically and mentally challenged patients.
- All patients who cannot perform their activities of daily living.
- All bed ridden patients.
- Women in labour.

Safety first program is followed for all vulnerable patients as mentioned above. For this the following steps are followed:

1. A yellow safety first sticker is pasted at the head end of the patient's bed other than ICU's, HDU's and paediatric wards.
2. Patient's safety brochure is given to the patients attendants which mention all the details of precautions to be followed during the stay in the hospital.
3. The Call bells are always kept within the reach of the patient.
4. Side rails are always kept up.
5. Frequent and intermittent monitoring of the patients by the staff.
6. Reassessments and documentation every 48 hours.
7. Patient not to be left alone and unattended at any point of time.

Restraint methods

These methods are implemented all over the hospital in the form of physical and chemical restraints whenever required.

- Physical restraints are the one in which the patient is tied down with the bed.
- Chemical restraints are the one in which patients are kept sedated with the help of medications.

These require:

1. A written order by the doctor, after explaining the relatives the need for the same.
2. Consent from the attendants/relatives.

This order is valid for 12 firs an4 it is renewed again after reassessing the patient's condition. Usually 1 hourly assessment is done and two hourly documentation is done by the nurses for the assessment on position, circulation, skin integrity, temperature, evaluation of restraint removal and fluid needs.

HEALTHCARE ASSOCIATED INFECTIONS

PREVENTION OF SPREAD OF COMMUNICABLE DISEASES

Patients presenting with suspicious of communicable disease which can spread through droplet nuclei are usually referred to infectious disease hospital until decided otherwise.

Universal precautions are strictly followed. Air borne precautions are specifically used when the patient has been confirmed of the diagnosis, for eg:

- pulmonary TB (sputum positive for smear)
- Chicken pox
- Mumps
- Diphteria
- Measles
- Pneumonic plaque
- Streptococal pharyngitis (grade A)

Patient placement

- Patient is confined to room with room door closed at all times when not -needed.
- In case of non availability of isolation, patient shall be placed in a room with a patient who has active infection with the same microorganism (cohorting). For patients with active pulmonary TB, N95 masks as used as respiratory protection by the attendants.
- Barrier nursing ensures breaking the chain of transmission of infection by following the methods of barrier techniques (using PPE like masks, gloves, gown, apron, goggles, overshoes).

Management of Blood, Body Fluid Spills

This is very infectious and has to be managed immediately which is done in following steps :

1. Spill is confined by covering it with absorbent material like paper ins, toilet paper or newspaper.
2. Wearing rubber gloves (preferably over surgical) to remove the soiled material.
3. Discard all solid material into yellow waste bag or as per waste protocol.
4. Put 1% hypochlorite solution over the area and leave it for 20 minutes.
5. Cleaning of the area with detergent / soap/ water.
6. Mop dry.
7. Take of the gloves, wash hands and dry them.

Needle Stick Injury

A needle stick injury is a percutaneous piercing wound typically set by a needle point, but possibly also by other sharp instruments or objects. Commonly encountered by people handling needles in the medical setting, such injuries are an occupational hazard in the medical community. Occupational needle stick injuries are mainly focused on the healthcare environment, but law enforcement is at particularly high risk for incidental needle sticks, though this population is commonly overlooked. These events are of concern because of the risk to transmit blood-borne diseases through the passage of the hepatitis B virus (HBV), the hepatitis C virus (HCV), and the Human Immunodeficiency Virus (HIV), the virus that causes AIDS. This includes skin prick, contamination of an abrasion, spillage into eye or into mucous membrane (e.g - mouth, nose etc), heavy soiling of intact skin or mucous membrane with blood and body fluids.

Actions taken:

1. Wash the area in contact with soap and water and plenty of water in case of mucous membrane.
2. Staff clinic / emergency medical officer to be informed.

3. 10 ml of sample from the source patient (if known source) along with 10 ml of blood from the exposed staff member to be sent to transfusion medicine depts. and microbiology lab. This would be tested for HbsAg, antiHCV antibodies, anti Hbc, antiHBs antibodies. Also tested for HIV antibodies.

4. Patient incident form or employee incident form is filled with all details and sent to the quality department for analysis (statistical).

DISASTER MANAGEMENT

AIMS & OBJECTIVES

- Ensure that appropriate systems are in place to provide prompt and effective Medical Care to disaster victims
- Organize disaster simulation exercise and tighten response mechanism
- Disseminate the Plan widely
- People with roles to play in the disaster Plan must be trained and sensitize for it
- To save as many lives as possible
- Use of resources to achieve this goal

YASHODA HOSPITALH DISASTER MANAGEMENT COMMITTEE

- Med. Supdt. Chairman
- Addl. Med.Supdt. Member
- HOD (Anaesthesia) //
- HOD (Surgery) //
- HOD (Neurosurgery) //
- HOD (Orthopaedics) //
- HOD (Medicine) //
- HOD (Radiology) //
- HOD (Laboratory Medicine) //
- Officer I/C Store //
- Blood Bank Officer //
- Nursing Superintendent //
- Officer I/C Casualty Member Secy.

DISASTER CONTROL ROOM

- **Emergency Control Room** - The Disaster Control Room
- **Emergency Control Room Officer** -I/C Disaster Control Room
- **Disaster Control Room** - Collect,Collate,Coordinate & disseminate Disaster

RAPID RESPONSE TEAM

- **Medical Superintendent**

  - Pre-identify specialty - Doctors, Nurses & Paramedics.
  - Dispatch rapid response team to Crisis Point.

INFORMATION & COMMUNICATION

- **Emergency Control Room**

  -Communication linkage with all.

  -Connected to Med. Supdt. , Addl.M.S. ,

  Wards, Labs, etc.

- **E.C.R.O. - Collect Disaster Information w.r.t.**

  - Time
  - Place of occurrence
  - Nature of Disaster
  - Number of Casualties
  - Source of information
  - Authenticity
  - Inform all concerned

DISASTER BEDS

- **E.C.R.O-Utilize all available Beds**
- **Additional Bed capacity-**

*Vacant beds

*Day care beds

*Pre-operative beds

*Discharge -

*Convalescing patients.

*Elective Surgical cases.

*Patients requiring Domiciliary/OPD care.

*Utility areas (Side Rooms, Galleries, Seminar Rooms etc.)

*Trolley beds

*Folding beds

*Floor beds

LOGISTIC SUPPORT SYSTEM

- **E.C.R.O.-Coordinate Logistic Support System.**
- **Disaster almirah**

*Separately in Casualty/Disaster ward.

*Stock -All essential medicines.

- Dressing materials.

- Splints.

- Disinfectants.

- Vaccines.

- Emergency trays.

- Surgical supplies.

- **Resuscitation Room - ECG, Defibrillator.**

  - Ventilator, Laryngoscope.

  - Ambu bag, Suction machine.

  - Oxygen cylinder, E.T. tubes.

- **Stretchers, Wheel chairs, Linen, Blankets etc.**

BLOOD BANK

- **YASHODA HOSPITAL – 4500 Units of Blood**
- **Blood Fractionalization**
- **Additional Blood**
  - Donors.
  - Other Government .Hospitals.
  - Voluntary agencies.

AMBULANCE SERVICES

- **Yashoda Hospital**

  * 2 A.L.S.S. Ambulances

  * 4 B.L.S.S. Ambulances

- **I/C Transport - Roadworthiness**
- **E.C.R.O.**

  - Name, Addresses, Tel.Nos. of all Doctors, Drivers & Paramedics

  - Request more ambulances from

    - CATS, Police, Fire Service
    - Red cross, St. Johns

ACTIVATION OF DISASTER PLAN

- **Standard operating procedure – roles and responsibilities of all concerned officials**
- **Activation of plan**

E.C.R.O. - Activate the disaster plan

- Contact the concerned personnel

- Pass information to

Medical Superintendent

Additional Medical Superintendent

I/C Casualty

Surgical specialist / Medical specialist

- **Reception area**
  - Moderate load – Casualty
  - Heavy load – Ground Floor OPD
- **Nuclear, Biological, Chemical Warfare**
  - Identified decontamination area
  - Contaminated clothes – Waste Management

- **Triage Team - Surgeon**

- Anaesthetist

- Physician

- Nursing sister

- Paramedics

- **Casualty sorting**

- Priority one : Immediate resuscitation

- Priority two : Immediate surgery

- Priority three: First Aid and possible surgery

- Priority four : Only First Aid

- **Additional Bed Space**

  - As per disaster manual

- **Biological Warfare / Chemical Warfare**

  - Temporary Isolation Ward

  - Barrier nursing

  - Universal Precaution

- **Additional O.T. Tables**

  - Cancel routine/elective Surgery

- **E.C.R.O.**

  - Monitor consumption of essential drugs and supplies.

  - Ensure adequate supply.

- **C.M.O.**

  - Documentation

  - MLC’s

- **Dead**

  - Mortuary

  - Proper identification / tagging

  - Proper documentation

  - MLC record

  - Temporary morgue

- **Crowd Management - Security**

  - Police

- Paramilitary Force

- **Public Relations**

  - E.C.R.O.

- **Media**

  - Medical Superintendent

- **Essential Services (E.C.R.O.)**

  - Water

  - Standby Generators

  - Emergency Lights

  - Relatives Waiting Area

- **Drills**

  - Mock exercises

- **Decontamination**

  - Showers

  - Contaminated water disposal

  - Personal protective equipment

FIRE SAFETY MEASURES

Every manager, supervisor and employee are responsible to observe, report and check any condition which may act as potential causes of fire. There are few points which are observed:

- Old and fringed electric cables damaged switch boards, loose fixtures and sparking appliances are reported to engineering department and followed by H.K. supervisor till the work is done.

- Welding work is done only after permission from fire safety officer and in presence of fire personnel to provide fire fighting cover.
- Cleaning of hands, feet with petrol and thinner is not allowed in' the patient areas.
- Used bandage, cotton, paper are disposed off immediately.
- Unauthorized fires not permitted in hospital premises.
- No private heaters, immersion rods allowed.
- Hospital has been declared as "No Smoking Zone".
- Whenever an area is being modified or reconstructed the engineering department take fire officers into 'consultation for the necessary fire safety measures.

FIRE SAFETY PLAN:

The fire safety plan in framed in a hospital so as to safely evacuate the occupants in a planned manner.

The plan of evacuation of this hospital is horizontal evacuation to a fire safe area.

RACE: Rescue, Alarm, Confine and Extinguish

This is the hospitals code activation procedure in case of fire. In the hospital, every staff is trained to recognize and respond appropriately case of fire with this term.

RESCUE : To remove everyone from the affected area.

ALARM : The fire alarm pull station shall be activated. These are located throughout the building, several on each floor. These sends signal to the security and initiates the emergency response. A.C systems shut down automatically which could spread fire.

CONFINE: Once the room or area has been cleared of patients, the doors shall be closed, then confining the fire and giving fire response team the time needed to arrive.

EXTINGUISH AND EVACUATE : When practical and when an employee has been properly trained in the safe and proper use of a fire extinguisher, the attempt should be made using the fire extinguisher. One should evacuate, if not comfortable with fire extinguisher or more than one is needed.

NUTRITIONAL POLICY

Nutritional assessment and nutrition scoring is done at the time of admission by the doctor in the history and physical sheet. Any patient having score of 11 or < 11 is referred to the dietician. Dietician is supposed to review the patient within 24 hours of admission. Apart from this, general criteria which is followed for reference to the dietician is based on clinical requirement of the patient. Some of the basic criteria's are based on -

- Chronic illnesses like Renal dysfunction, coronary artery disease, dyslipidemia, hyperuricimia —
- Diabetic patients.
- Specific diet restrictions - low fat, high carbohydrate diet.
- Low K+ or high K+ diet.
- Age above 75 years and all paediatric patients
- Obese patients and those for gastric benching.
- All patients suffering from diseases of liver, and intestines and colon.
- All patients with abdominal surgeries.
- All patients who are on Ryle's tube/Peg tube feeding.

Nutrition assessment form is filled by dietician and education brochures with diet chart is provided at the time of discharge.

FOOD - PREPARATION

- Preparation and preparation of food is only in hygienic conditions.
- Each meal is prepared from and consumed during meal time.
- Left over meal is properly covered and promptly reused.

FOOD DELIVERY:

- Specific schedule of food delivery is followed.
- Food is transported in hot chambers and if separate, in properly covered condition only.
- Food handlers and delivery boys keep attire from patients contact and soiling with patient's blood, body fluids and excretions.
- Diet is delivered according to the consultant's advice.
- Outside food is not allowed in the hospital due to risk of food borne illness.

HYGIENE & SANITATION PRACTICES

- High Standard of cleanliness of is maintained in Kitchen.
- Strict sanitation schedule for cleaning entire kitchen area is followed.
- Fruits-and vegetables are washed only in chlorinated water.
- Food handlers wear gloves and caps while handling the food.
- Frequent hand wash with soap and water is followed.
- Eating and drinking is allowed only in designated areas.

EMPOLYEE HEALTH & HYGIENE

- All employees suffering from respiratory disease, intestinal disease, diarrhoea, boils, jaundice or any skin infections are not allowed to work if there is suspicion of food contamination.
- Food handlers are subjected to stool examination every 4 months.
- All employees adhere to the departmental dress code.
- Fresh set of uniforms are issued on daily basis.

HAND HYGIENE

- Strict hand washing before entering the kitchen is followed.
- Hands are also washed before starting work, preparing food.
- In between handling raw food (eggs) and touching other utensils.
- After a particular process, going to toilet, touching rubbish/ waste bins, if hands are soiled, after coughing and sneezing.

The hand washing facility is separately designated for this purpose.

EMERGENCY SERVICES

Emergency Codes

CODE BLUE: CARDIAC ARREST
CODE BLACK: BOMB THREAT
CODE RED: FIRE
CODE PINK: MISSING PERSON / CHILD ABDUCTION
CODE YELLOW: EXTERNAL DISASTER
CODE VIOLET: VIOLENT PERSON

This Department plays a very major role in any organization and gives immediate attention to all patients who are critically ill. The department is equipped with all -emergency devices (monitors, pulse oxymeter, defibrillator, emergency medication) and cardiac life support ambulances.

ROLES and SAFETY MEASURES

- Active and intensive medical care in triage in case of life threatening situations.
- CMO attends all medico-legal cases brought by Police.
- All necessary interventional procedures are carried under strict aseptic precautions.
- All patients are treated as vulnerable patients and side rails are kept up till they are stabilized and shifted to wards.

- Any patient with suspicion of infectious communicable disease is isolated in the isolation room for management.
- Provides transportation facilities for the patients to and from YASHODA HOSPITAL hospital to other hospitals in ambulances (surface/air)
- Advanced cardiac life support measures to the needful with their well equipped ambulances.
- Immediate emergency care to the patients on site, in case of disasters (in and outside hospitals).
- Provides Emergency scoops with belts for transporting fractured and immobile patients.
- Provides Emergency stretcher with belts for safe transportation.
- Checking of all instruments/equipments is done in every shift.
- Intermittent calibration checks by Bio-medical department of all instruments at regular interval and as and when required.

LABORATORY: SAFETY PRECAUTIONS

PRECAUTION TAKEN BY PHLEBOTOMOTIST

- Check the requisition form
- Identify the patient by full Name, Registration No., Age
- Draws correct amount of various blood samples safely, efficiently.
- Label to collection containers, tubes, bottles etc.

Standard Sterile precautions for sample collection that are followed without causing any discomfort to the patient are:

- Transfer to appropriate, labelled receptacles and mix it properly,
- To apply pressure at vein puncture site for at least '5' minutes in patients with bleeding problems.
- Record the sample collection on HIS.
- Samples are dispatched to concerned department without any delay. In case of OPD samples, they are dispatched at an interval of 1 hr.
- To check that the samples are received in the appropriate lab.In case of OPD patient's, reception staff to inform the patients when the report be ready.

LABORATORY INVESTIGATIONS

It is pertinent that a proper specimen along with necessary information is submitted to the laboratory for proper and optimal utilization of laboratory services for guiding the treatment of the patient. The following steps are critical and are followed strictly.

A. **Requisition Forms** : There are a number of requisition forms used for laboratory tests, which are listed on these forms. At present the following are being used : -

1. Biochemistry
2. Haematology
   - Haemogram requisition
   - Haematology requisition - II
   - Body fluids requisition form
   - Bone marrow requisition form
3. Microbiology: Culture and sensitivity and Staining, (Requisition slip-I)
4. Microbiology: Serology - Immunology (Requisition Slip - II)
5. Non Gynae Cytopathology.
6. Histopathology
7. Gynae Cytopathology.

- These forms should be filled properly. No column should be left blank. A cross or a tick mark is to be put while indicating the test to be carried out.
- The patient's names are written in capital letters.
- The provisional diagnosis are written in capital letters.
- The antibiotic/Antimicrobial therapy which the patient is receiving are provided for microbiological tests.
- The signature should be legible along with the designation.
- Time of collection of the samples are clearly written^
- Incomplete requisition forms are not to be received.
- For tumor markers, it is necessary to give complete clnical history with diagnosis, course of chemotherapy, radiation and organs involved.

- For therapeutic drug monitoring, the requester indicates relevant drug doses and schedules.
- For any test not appearing on the. form but appearing on the list of any of the labs$_s$ it is written in the space so provided.
- For histopathology/ cytopathology specimens all the relevant clinical details, site of specimen, radiological findings and results of other investigations are mentioned.
- Specimens reaching the laboratory are properly collected, well chosen and of good quality. They are accurately labelled. If there is any special risk of infection associated with handling of the specimen; this is indicated on the label.

B. <u>Delivery of the Samples</u>:

All samples are delivered to respective laboratories at the earliest. Urgent samples are to be delivered within ½ an hour.

RECOMMENDATIONS

1. Constitution of Patient Safety Committee: A patient Safety committee shoul be made for effective planning and management.

2. Develop clear policies and protocols for patient safety.

3. Communicate regularly patient safety initiative within hospital staff.

4. Orientation, Re-orientation of hospital staff on patient safety: Hospital staff should be motivated for active participation in patient Safety.

5. Encourage transparency in the system regular death review.

6. Non- punitive incident reporting by staff.

7. Each department to devise their own patient safety protocols.

8. Investigate each accident/ incident reported and take adequate remedial measures.

9. Review safety procedures regularly on monthly basis to monitor & evaluate.

CONCLUSION

Hospital Acquired Infections are known to take place in the hospital due to environmental exposure to the patients with infections and this add to large amount of morbidity and mortality and loss of hospital resources, Extended Hospitalization. It is totally not possible to eliminate HAI's but our knowledge and awareness about HAI and measures to control them have certainly played a significant role.

The Hospital's Disaster Plan describes its requirement, implementation and how the medical relief can be organized in a proper and within no span of time.

A proactive, professional and well trained Security-Department focuses on the possible security threat and crime prevention within the premises, as well as public service which has significant contribution to our hospital's well organized working status.

The Hospital Fire Plan indicates escape routes, compartmentation, other fire protection facilities i.e. PPEs (Personal Protection Equipments) and horizontal evacuation and methods of extinguishing fire by experts. This is done two times a year in Fire Mock Drills.

Medication Policy of the hospital is strictly followed everywhere in the hospital and this gives great confidence to our system managing and avoiding medication errors to its minimum. Apart from this, there is system in the pharmacy department. Where a Audit team is functional. Their main function is to keep a check on the drugs indented and their overdosing. The same brought to the knowledge of the sister and the Doctor and only after confirming, the drugs are issued. More, pharmacists visit the floor and crosscheck the orders and verify them with his name initials.

Dietary Department and also follow strict precautionary measure as per the norms standard requirements for patient safety.

Emergency service are the face of the hospital and pays a major role in managing critically ill patients in triage and transporting patients to and from Hospitals in cae of need under the guidance of experienced medical staff.

After overall study of the project I finally evaluated that the hospital services in general and safety practices which are being followed are highly helpful for the patients and that they have been meeting with standards of International level. However, there is always a scope of improvement and the organization keeping this mind is continuously working on the overall improvement of patient related service.

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