

PATIENT SAFETY IN WARDS

**A dissertation submitted in partial fulfillment of the requirements
For the award of**

Post-Graduate Diploma in Health and Hospital Management

By

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April, 2012

Certificate of Internship Completion

Date:.....

TO WHOM IT MAY CONCERN

This is to certify that Mr./Ms./Dr. _____ has successfully completed his 3 months internship in our organization from December 19, 2011 to March 19, 2012. During this intern he has worked on(task performed) under the guidance of me and my team at(organsiation).(any positive/negative comment)
We wish him/her good luck for his/her future assignments

(Signature)

_____(Name)
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Certificate of Approval

The following dissertation titled "**ABC ...**" is hereby approved as a certified study in management carried out and presented in a manner satisfactory 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

Name Signature

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AKNOWLEDGEMENT

I, Nitin Prasher, student of P. G. Diploma in Hospital and Health Management From International Institute of Health Management Research take this opportunity to thank various people who all have made me sail through successfully during my project work at Yashoda Super Specialty Hospital, Ghaziabad.

I would like to thanks an endless list of wonderful people for their help and cooperation. It will be injustice if I start this epistle without first mentioning, Dr. Dinesh Arora, Chairman, Yashoda Super Specialty Hospital.

I consider myself extremely fortunate in extending my most sincere thanks and profound gratitude to Dr. Namit S. Tomar, internal guide.

I will remain indebt to Dr. Meenu Chopra, Dr. Priyaranjan Thakur (Quality consultant), Mrs. Neha Kulkarni (Quality Manager), for extending support and guidance during my project work.

I have great pleasure in expressing my deep sense of gratitude and cordial thanks to Dr. Rajesh Bhalla , Dean Academic and Student Affairs and Prof. T. Muthukumar for providing me excellent cooperation, encouragement, guidance and timely help during my work period.

I convey lots of thanks to rest of the hospital staff for their cooperation in my research work.

Once again to all of these and any other who I might love overlooked .I extended heartfelt thanks.

Nitin Prasher

PG/10/27

HOSPITAL PROFILE

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, and the institution has now grown to become a major tertiary care healthcare provider to all walks of life in the region.

The Yashoda Hospital and Medical Research Centre was established in 1990 and later on was inaugurated by the Deputy Prime Minister of India, Honorable Shri L.K. Advani. It is a unique example of multi super specialty medical institution of modern times.

Yashoda Hospital is spread in greenery over a built-in area of over 6000 square meters in six floors. All service centers in this 306 bedded multi specialty hospital with tertiary care infrastructure are located in such a way that patients do not feel any difficulty in availing any of our services.

We have yet another branch of Yashoda Hospital in Kaushambi, East of Delhi which has started to function on 30th March 2006. It also represents multiple established branches of medicine. It is a super specialty hospital rendering its undisturbed services impartially to all strata of patients.

For last two decades, our restorative hands have been taking care of not only the citizen of Ghaziabad but also other part of Uttar Pradesh, Uttaranchal and NCR.

At Yashoda Hospital, we envisage our role to be for more than just ethical or professional obligation. Here, the traditional Values of trust and faith are upheld in the doctor – patient relationship. Moreover, your interests are looked out for, above everything else.

The hospital is highly motivated to work out for NABH certificate not for just namesake but to prove its high delivery of quality services across the region.

It is these values & principles, coupled with complete transparency & modern medical facilities that have made us one of the best in the country.

Along with providing world class health care and diagnosis, we strive to give the best support in a personalized in all super specialties.

The core values of hospital which are the pillars of the vision of renounced visionaries are Care, Commitment, Integrity, and Excellence.

MISSION

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

VISION

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

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.

Scope of Services:

- Neurosurgery
- Gastroenterology
- Internal Medicine
- Obstetrics & Gynecology
- Nephrology
- Urology
- Critical Care Medicine
- Pediatrics & Neonatology
- Neurology
- Orthopedics
- Cardiology & CTVS
- Radiology & Imaging Sciences
- Ophthalmology
- Dermatology
- Nuclear Medicine
- Minimal Access and General Surgery
- ENT
- Psychiatry & Clinical Psychology
- Physiotherapy
- Laboratory Services
- Endocrinology
- Dietetics
- Audiology & Speech Therapy
- Dentistry
- Pulmonology
- Pharmacy
- Anesthesiology
- Blood Bank
- Plastic, Cosmetic & Reconstructive Surgery

SERVICES OFFERED BY HOSPITAL

CLINICAL SERVICES

OPD – OUTPATIENT DEPARTMENT

The Yashoda Hospitals Outpatient Department; although new in develop and implement stages of new specialty clinics to meet the encroaching and changing needs of the patients and community but at a good pace. Consultants in these clinics focus on procedures as well as assessments, treatment, education and follow-ups for patients.

Types of patients for OPD consultation:

- Emergency patients
- Referred patients
- Walk-ins

IPD - INPATIENT DEPARTMENT

Patients will usually be admitted through the following ways:

- OPD, advised admission by the consultants.
- Emergency.
- Labor Room.

Patients can be divided into following:

- Cash Patients
- Discount Patients (through corporate tie-ups)
- TPA patients

INTENSIVE CARE UNIT (ICU)

All the Units are functionally independent with dedicated Nursing station, central monitoring, clean & dirty utility areas and are manned by dedicated specialty nurses. The ICUs also have isolation rooms with independent AHUs for immuno-compromised and heavily infected patients. ICU is supported by the High Dependency Units and step down wards.

The patient in this unit comes from Operation Theatre (OT), Emergency and Wards.

HIGH DEPENDENCY UNIT (HDU)

High Dependency Units (HDUs), also called step-down, is progressive and intermediate care units. People who need more intensive observation, treatment and nursing care than is possible in a general ward but slightly less than that given in intensive care, are brought in this unit. The ratio of nurses to patients is slightly lower than in intensive care but higher than in most general wards.

OPERATION THEATRE

OT is well equipped with all modern technologies and is manned by OT in-charge, anesthetics, sister on- charge, well trained nurses, technicians and house keeping staff.

EMERGENCY

The Emergency (ER) is a well established department which functions round the clock. This 24-hour emergency service has 6 patient beds, nursing station and a Doctor's duty room. The main aim is to provide immediate care in the form of resuscitation and first aid and if required involve the concerned specialty RMO and senior consultant in the further treatment.

SUPPORT SERVICES

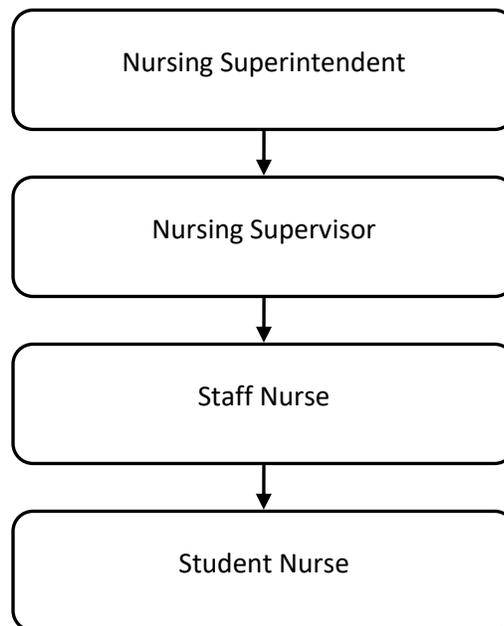
NURSING DEPARTMENT

The Department of Nursing at Yashoda Super Specialty Hospitals, aims at delivering a quality patient care combined with compassion, care and understanding through:

- Planning, organizing, and directing the overall nursing service activities in all clinical and special areas in the field of cardiac, medical and surgical nursing.
- Assigning duties to professional and ancillary nursing personnel based on patients' needs, available staff, and service needs.
- Supervising and evaluating work performance in terms of patient care, staff relations and efficiency of service.
- Providing nursing care and medication and cooperating with other members of medical care team in coordinating patients' total needs.
- Identifying and studying nursing service problems and assists in their solutions.
- Observing nursing care and visits patients to insure that nursing care is carried out as directed and treatment is administered in accordance with physician's instructions and ascertaining needs for additional or modified services.
- Maintaining safe and hygienic environment for patients.
- Operating or supervising operation of specialized equipment assigned to unit and providing assistance and guidance to nursing team as required.
- Accompanying physician on rounds to answer questions receives instructions and notes patients' care requirements.
- Reporting to replacement on next tour on condition of patients or of any untoward or unusual actions taken.
- Rendering professional nursing care and counseling patients and their families in techniques and methods of home care after discharge.
- Collecting clinical data through the process of interview, observations using all senses and clinical instruments and utilization of diagnostic examination reports.
- Evaluating results of interventions and revise plan to cope with changing conditions of the patient.

- Supervising the Housekeeping staff in maintaining cleanliness and orderliness of the wards/units.
- Reviewing patient's pre-operative preparation as well as OT preparation for the procedure.
- Making general assessment of patients in the recovery room and confers with head nurse nursing management of each patient
- Seeking ways for continuous improvement through ongoing education, training and certification
- Gaining and giving co-operation to all other departments.
- Giving and earning trust in interpersonal relationships.

Departmental Hierarchy:



CSSD (Central Sterile Supply Department)

Main functions of the department include:

- Receiving used instruments from OT and other patient care areas.
- Sterilization of instruments.

- Sterilization of dressing items.

Equipments Installed:

- Automatic Autoclave
- Ultrasonic Washer
- ETO Machine

Methods used for sterilization:

Steam Sterilization (high temperature)

LABORATORY

The Laboratory services are equipped with infrastructure to perform all Pathological, Biochemistry and Microbiological investigations.

The load on laboratory is from both inside and outside the hospital.

The various tests are:

- Hematology
- Clinical Pathology
- Cytopathology
- Serology
- Clinical Biochemistry
- Microbiology
- Histopathology
- Immunology

Reports of OPD and External patients can be collected from the Report collection area and for IPD patients, the reports are provided in the wards.

RADIOLOGY

Radiology is one of the important departments of the hospital that directly contributes to patient care. It provides vital diagnostic backup to all the specialties, which cannot practice effectively without their support. Radio-diagnosis department has the following facilities.

- A. X-Ray
- B. Ultrasound
- C. CT Scan
- D. MRI
- E. CT 64-slice
- F. Mammography
- G. Ultra- Sonography & Doppler

The department carries out all routine examinations of Brain, Thorax and various 3D examinations along with guided FNACs. The department is equipped to take care of radiological investigations and carries out some interventions.

PHARMACY

Pharmacy Services at Yashoda Super Specialty Hospitals provides a wide range of pharmaceutical products, surgical, disposables, lifesaving and general healthcare products and nutritional supplements. Our priority is to stock an entire range of pharmaceutical and medical products, and delivering them efficiently to our customers. Our backup facility helps us serve our customers with critical medicines.

Hospital comply with the procedures and rules mentioned in the Drugs & Cosmetics Act, 1940

Computerized billing discloses the expiry date and batch numbers of medicine

UTILITY SERVICES

Utility Services comes under the Manager Services including housekeeping, security, dietary services.

HOUSEKEEPING

Clean, tidy and comfortable surroundings are fundamental to achieving high levels of patient satisfaction. The cleanliness of the hospital is essential for control of infections and patient well being. The housekeeping staff plays a pivotal role in quality improvement, building public confidence and lowering infection related risks.

The main functions of housekeeping staff are listed below:

- Washing
- Mopping
- Scrubbing floors
- Surface cleaning
- Dusting
- Checking for any engineering complaints
- Maintaining hygiene in toilets
- Patient transportation

SECURITY

The main objective of Security Services is to protect the welfare and interests of all hospital staff, patients, and visitors through providing needed assistance, crisis intervention, incident investigation, law enforcement, and when necessary, security detention.

Functions of the Security services:

- Observation, surveillance and policing
- Security against intrusion, theft and robbery
- Transport and parking control
- Advice management on security matters
- Asset Control
- Access entry and exit control
- Key control
- Mortuary Management

- In absence of Trolley Boys transportation of patients.

DIETARY SERVICES

Dietary service is one of the most important hospital supportive services contributing to the recovery of health, through scientifically prepared diets, educating the patients attending the hospitals for treatment regarding use and utility of different foods and balanced diets.

Hospitals dietary services are responsible for pre- preparation, preparation, service and clearance of Food & Beverages for the patient of the hospital.

ADMINISTRATIVE SERVICES

FINANCE & ACCOUNTS

Objectives of the Department:

- To maintain correct and accurate accounting & statistical records.
- Preparing Monthly Income Statement.
- Funds management and banking activities.
- Timely processing & payments of supplier bills.
- To make statutory payments and submitting statutory returns within limits prescribed under law.
- Preparing budget & allocate money to the various departments.
- Submitting timely and accurate reports to management to assess deviations from budget.

MARKETING & CORPORATE

Marketing & Corporate department is one of the most important departments with the aim to create goodwill of hospital by performing the following activities:

- CMEs
- Outside Camps
- Health Talks

- Corporate empanelment
- Workshops
- Conferences

HUMAN RESOURCE DEPARTMENT

It is that department which brings people and organizations together so that the goals of each are met. It is concerned with the management of Human Resources in an organization.

Functions of HR department –

- To help the organizations reach its goals.
- To employ the skills and abilities of the workforce efficiently
- To provide the organization with well trained and well motivated employees.
- To communicate HR policies to all employees.
- To increase to the fullest, the employee's job satisfaction and self actualization.

PATIENT CARE SERVICES

This department handles the queries of the IPD patients in terms of requests, complaints etc. The staff visits all IPD patients on a daily basis to know their well- being and register their complaints and rectify them in the minimum possible time. They also motivate IPD patients to fill Feedback forms so that proper actions can be taken by the management so as to achieve patient satisfaction/ patient delight. Broadly, their main functions are:

1. To maintain a good relation with the patients/attendants in the hospital through personalized service.
2. Managing patients/attendants expectations as well as keeping the interests of the organization alive.
3. To enhance the value of services being provided by making the patient and the attendant comfortable and acquainted to the hospital.
4. To improve the quality of service from the patients perspective through their feedback.

5. To look beyond the patients/attendants grievances, to identify loopholes in the existing system and the factual problems of the patients.
6. Networking within the hospital for the benefit of the patient/attendant and to ensure the action on the feedback.
7. Facilitating timely admission, discharge and transfer of patients.
8. Extending services to other departments as and when required and agreed.
- 9.

- High Tech Trauma Centre & Emergency services - To manage poly-trauma and all types of medical emergencies round the clock
- World Class seamless zero-bacteria operation theatres for all types of major & Micro surgeries
- Blood Bank – for blood components & Aphaeresis (Platelets & Plasma)
- Interventional Cardiology –
 - o Coronary Angiography
 - o Coronary angioplasty & Stenting
 - o Intra Aortic Balloon Pumping
 - o Coronary Artery Bypass Graft Surgery (CABG)
 - o Heart Valve repair or replacement,
 - o Pacemaker Implantation
 - o ICD Implantation etc.
- Electrophysiology Studies
- Nuclear Cardiology
- Stress 99m Tc myocardial Heart Scan (Thallium Scan)
- MUGA Scan
- Vascular Doppler Studies
- Stress Echo, ECG, TMT, Holter Monitoring
- Urodynamic Studies & Lithotripsy
- IVF (In-vitro fertilization)
- Neuro Physiology Lab (N.C.V., E.M.G., E.E.G., Evoked Potentials, BERA etc.)
- Nuclear Medicine Services – Bone Scan, Thyroid Scan, Brain Scan, Stress Cardiac

Perfusion Scan, Kidney Scan (DTPA, DMSA), Liver Scan, Para-Thyroid Scan, Tumor imaging (MIBI, MIBG Scan), Lung Scan, 131-1 Radio Iodine Scan, 131-1 Radio Iodine Therapy

- Joint Replacement- Hip, Shoulder & Knee
- Haemodialysis & Fistula OT
- MRI, CT Scan (Whole Body), 4-D Ultrasound, OPG
- Breast Clinic & Mammography
- Endoscopy, ERCP, Colonoscopy
- Advanced PHYSIOTHERAPY techniques including laser therapy
- Hi-tech ICU, ICCU, High Dependency Units (HDUs), NICU, PICU and Nursery
- Fully Computerized advanced PATHOLOGY LABS -

For Microbiology, Biochemistry, Hematology, Histopathology, Clinical Pathology, Immunology, Cytopathology & hormonal Assays

- A fleet of fully equipped CARDIAC and ICU Ambulances

Super Specialties :

1. CARDIOLOGY
2. NEUROLOGY
3. NEURO SURGERY
4. NEPHROLOGY
5. UROLOGY
6. ONCOLOGY
7. GASTROENTROLOGY
8. GASTRO INTESTINAL SURGERY
9. MAMMOLOGY
10. ENDOCRINOLOGY

11. INTERVENTIONAL CARDIOLOGY

12. CTVS

13. PLASTIC & COSMETIC SURGERY

14. PAEDIATRIC SURGERY

Other Specialties:

1. GENERAL MEDICINE

2. GENERAL SURGERY

3. PAEDIATRICS

4. NEONATOLOGY

5. OBSTETRICS & GYNAECOLOGY

6. ORTHOPAEDICS

7. SPINAL SURGERY

8. E.N.T.

9. SPEECH THERAPY & AUDIOMETRY

10. PSYCHIATRY

11. CHILD PSYCHOLOGY

12. PSYCHOLOGY

13. PHYSIOTHERAPY

14. NUCLEAR MEDICINE

15. DIETARY

16. RESPIRATORY MEDICINE
17. RADIOLOGY
18. PATHOLOGY
19. MICROBIOLOGY
20. CRITICAL CARE MEDICINE
21. DENTISTRY

HEALTH PACKAGES :

Introduction

The aim of a preventive health checkup program is to extend the life expectancy of the population and to avoid untimely death or disability. Prevention is directed towards early recognition and prevention of diseases. Prevention is directed towards early recognition of diseases.

Prevention

Prevention is not only cheaper but is necessary as an effective component of health care. It achieves more positive effects than medical treatment. Health promotion is aimed at influencing people's social circumstances and lifestyles so that their health is improved and disease is prevented.

Why is preventive health care so important?

About half of all deaths from heart diseases are sudden and unexpected. There is little opportunity for treatment. For people at risk of sudden death, prevention is the only hope.

As per your convenience Yashoda hospital having different Health Check up Packages :
HOUSE-HOLD EMPLOYE'S CHECKUP

EXTENTD HOUSE-HOLD EMPLOYEE'S CHECK UP
PRIMARY HEALTH CHECK-UP
HEALTHY-CHIELD CHECK-UP
GENERAL HEALTH CHECK-UP
WELL WOMEN'S HEALTH CHECK-UP
EXTENDED WELL WOMEN' HEALATH CHECK-UP
EXECUTIVE CHECK-UP (I)
EXECUTIVE CHECK-UP – (II)
EXECUTIVE SR CITIZEN CHECK – UP (III)
DIABETES CHECK-UP
ROUINE HEART CHECK – UP
EXECUTIVE HEART CHECK – UP
CANCER SCREENING CHECK-UP (FOR MALES)
CANCER SCREENING CHECK-UP (FOR FEMALES)

EMERGENCY SERVICES

TRAUMA MANAGEMENT SERVICES

The hospital accords highest priority to operational alertness of its trauma management services. Our hi-Tech trauma center is a totally Independent state of the art wing having its well-equipped trauma ICU with multi-parameter Bedside monitors & ventilators, trauma OT, Ultrasound and X-Ray facilities. We put in all efforts to utilize every second of the golden hours to manage the trauma and poly-trauma cases. The full force efforts by our highly professional team concentrates on – Resuscitation and restoration of basic parameters, monitoring of vital parameters as well as maintenance of efficient respiratory performance along with early diagnosis of hollow viscous injuries, life saving surgeries viz. Spinal surgery, Neuro-Surgery, Orthopedic Surgery, ENT Surgery, Micro Surgery, Chest Surgery, Hand Surgery etc. Maintenance of tissue perfusion, Reconstructive Surgery, early fixation of unstable limbs fractures mainly pelvis, spinal and femoral fractures using internal and external fixation methods to facilitate early and continuous rehabilitation management. For transportation of critically ill patients (Infants as well as adults), we have mobile ICU & ICCU ambulances.

TRAUMA SERVICES AT A GLANCE

Road Side Accidents, Industrial Accidents, Poisoning, Bullet Injuries and all other Medical Emergencies including Cardiac & Neonatal emergencies...round the clock

INTENSIVE CORONARY CARE UNIT (ICCU) SERVICES

The 18 bedded modern ICCU with central and haemodynamic monitoring bed side facility for temporary pacemaker implantation with round the clock duty doctors. Yashdoa Heart Institute is also equipped with all modalities of non-invasive investigation like:

2D Echo & Color Doppler by ultra modern machine

Stress Echo

Dobutamine Stress Echo

Carotid Doppler Study

Peripheral Doppler Study both arterial and veins study

Tilt Test

Holter

Permanent Pacemaker Implantation

Preventive Cardiac Health Check-up plans

NEONATOL & PAEDIATRIC INTENSIVE CARE UNIT (NICU & PICU) SERVICES

One of the best and most well equipped unit in Uttar Pradesh & Delhi. Our Department of Neonatology provides super specialty care for the low birth weight and critically borns with varied problems. Our team of highly specialized neonatologists with a wide experience overseas and in India, along with highly professional registrars and paramedical staff manage all types of neonatal emergencies round the clock. The department is fully equipped with:

Ø 30 bedded Neonatal Intensive Care Unit

Ø Modular Monitoring System including invasive monitoring.

Ø Pediatric ventilators from Siemens

Ø Servo controlled incubators and open care system

Ø Pulse oxy meters

Ø Photo therapy units

Ø Radiant warmers

Ø Blood Gas Analyzers and other micro-analyzers

The unit has been organized taking into account the standard recommendations of location, spacing and environment to minimize chances of sepsis and to thus ensuring optimum care.

INTENSIVE CARE UNIT (I C U) SERVICES

State- of -the Art 17 bedded I.C.U. with 360 degree observation from central station, electronically equipped with the latest critical care gadgets and each bed equipped with multi parameter patient monitoring system, Central medical gas pipeline for Oxygen, Vacuum and Compressed air and :

Ø Imported Puritan Bennett –7200 series Ventilators

Ø Centralized Ethernet connectivity compatible patient monitoring system

Ø Latest monitoring modules such as co, Gastric Tonometry and ECG monitoring

Ø Spirometers & Humidifiers

Round the clock manned by the team of Intensivist, Internist and Anesthetist with highly professional para-medical staff

LABOUR ROOM & EMERGENCY OPERATION THEATRES

Round the clock Emergency Operation Theatre, Labour Room, pre & post delivery care wards and provides under the personal care of its team of Gynecologists all help and consultation related to maternity including :

Ø All Obstetric & Gynecological Surgeries including – Laparoscopic & Hysteroscopic

Ø Complete Ante-natal care unit having well equipped Labour Room with Fetal Heart Monitoring

THE HEART CENTER :

Heart Disease is one of the major causes of death in India. In effective cardiac care, the “golden hour” (first 60 minutes of heart attack) is critical to the patient’s long term success and improved outcome.

The availability of Open Heart Surgery and Angioplasty conveniently located in our community provides a significant advantage to the way we deliver cardiac care.

The Heart Center services include:

- Open Heart Surgery – the majority of cases are performed using state-of-the-art off-pump technology

- Vascular procedures
 - o Carotid endarterectomy surgery (repair of blocked neck arteries)
 - o Aortic Aneurysm
 - o Aorta bifemoral repair
 - o Femoral popliteal repair (repair of blocked leg arteries)
 - o Embolectomies (removal of clot from a vessel either through surgery or a catheter)
 - o Thoracic Surgeries

- Cardiovascular intervention
 - o Balloon Angioplasty
 - o Coronary stent procedures
 - o Temporary & permanent pacemakers

INTERVENTIONAL CARDIAC CATH LAB

The cardiologist at Yashoda Super Specialty Hospital & Heart Institute are committed to

providing the highest quality cardiac care for individuals affected by heart and vascular disease. The interventional Cardiac Cath Lab allows them to provide a wide range of diagnostic testing to diagnose heart and vascular conditions and provide treatment. Patients who find themselves in the Cath Lab are usually those experiencing a heart attack, chest pain or following up on symptoms related to potential cardiovascular disease.

Procedures performed in the Cath Lab are generally less traumatic to the patients with minimal pain, shorter recovery time and less cost. The cardiologist use X-ray and other imaging techniques to see inside the body to guide narrow tubes (catheters) and other very small instruments through blood vessels and other pathways to treat a variety of medical disorders. These procedures often help a patient avoid surgery.

Some of the procedures offered through the cath lab include:

- Cardiac angiogram
- Intravascular ultrasound
- Intra-aorta balloon pump
- Carotid angiography
- Coronary angiography
- Temporary pacemakers
- Coronary stenting
- Fractional flow measurement
- Cardiac monitoring
- Peripheral angiography, angioplasty and stent placement
- Rescue percutaneous transluminal coronary angioplasty (PTCA) commonly known as balloon angioplasty

The latest all digital X-ray imaging system of GE is used to perform both cardiac and peripheral vascular procedures all on one machine all in the same room. The system allows the cardiologist to view even the smallest blood vessels during diagnostic procedures and treat potential blockages in the coronary or peripheral arteries. It allows the cardiologist to

easily visualize vascular detail through any body thickness, while keeping patient radiation dose at its lowest, with use of a flat panel digital detector.

Features and benefits include:

- The ability to view heart to see small blood vessels and anatomy with greater clarity even patients who are generally more difficult to image
- Revolutionary image quality that allows cardiologists to visualize the smallest medical instruments and devices such as catheters, guide wires and stents during procedures that require exacting precision.
- Considerable reduction in overall radiation exposure needed for an exam compared to conventional systems.

CARDIAC AND PULMONARY REHABILITATION

The cardiac and pulmonary rehabilitation program of Yashoda Super Speciality Hospital & Heart Institute, are out patient services designed to return patients to their highest level of functioning following a cardiac (heart) or pulmonary (lung) event. Through peer support and encouragement from our staff, patients learn about the disease process and skills needed to improve their quality of life.

The goal is to educate, train and instruct patients on the life style changes necessary to protect the health of their heart and lungs. Patients receive individualized training and education in managing their exercise, medication, nutrition and diabetes.

Treatments plans are individually designed to assure optimal recovery and long term success for those living with:

- Angina (Chest Pain)
- Asthma
- Chronic Bronchitis

- Chronic Obstructive Pulmonary Diseases (COPD)
- Emphysema
- Lung Cancer.

The programs also address the needs of patients who have recently had:

- Angioplasty
- Heart Attack
- Open Heart Surgery
- Stenting
- Heart Transplant
- Valve Surgery
- Lung Transplant.

To maintain optimum safety we supervise all progress by monitoring vitals signs and symptoms during exercise. We carefully monitor heart rate pressure, blood oxygen level and perceived exertion shortness of breath.

MEDICAL EDUCATION AND RESEARCH

Academic courses offered by **YASHODA HOSPITAL:-**

DNB (Diplomat of National Board)

- DNB – Family Medicine – 2 seats each year
- DNB – General medicine – 2 seats each year
- DNB – Paediatrics – 2 primary + 2 secondary

DNB: - This academic course is for aspiring to get academic training in the Family Medicine, Medicine, Pediatric. The program is affiliated to **NATIONAL BOARD OF EXAMINATION**, New Delhi.

DURATION & ELIGIBILITY:-

For post MBBS candidates – This is 3 years program,

Eligibility: - MBBS from recognized university & latest CET
Entrance exams clearance certificate by NBE (not require in FM).
Seats – 02 in each course.

Courses offered

Dip.C.H. (Dawn)

Dip.G.O. (Dawn)

Eligibility: - MBBS from recognized university. Candidates are selected through interview & written examination.

Affiliation – National Association for Reproductive & Child Health of India(**NARCHI**), Indian Collage of Maternal & Child Health of India (**ICMCH**),
Kolkata.

Seats – 4 seats each (2 for Ghaziabad & 2 for Kaushambi

Duration – 2 years program.

Our Hospital is also recognized by the MCI for conducting rotating internship for MBBS.

Forthcoming courses / program

- DNB Orthopedic
- DNB General Surgery
- DNB Obs. & Gynae
- DNB Anesthesia
- DNB Radiology
- DNB Cardiology

And also ALL PARAMEDICAL COURSES.

JOINT REPLACEMENT and ORTHOPAEDICS

Yashoda institute of Joint replacement & Orthopedics

This is the first state of the art Orthopaedic centre in Ghaziabad. The institute is a big leap forward towards achieving international standards as far as the patient care and the management of Orthopaedic problems are concerned. It is built up at the heart of the fastest growing city in the country.

We provide comprehensive world class management of Orthopaedic ailments and is backed by a team of internationally trained consultants, Physiotherapists, occupational therapists, nursing staff and other paramedical staff.

BLOOD BANK :

24 hrs Services:

- » Whole Blood
- » Platelet Concentration
- » Fresh Frozen Plasma (FFP)
- » Aphaeresis (Single Donor Platelet Aphaeresis)

ACCREDITATIONS:

- » NABH (Kaushambi)
- » ISO Certified Hospitals
- » National Board of Examination for DNB
- » Medical Council of India for Internship

Introduction of patient safety

Patient safety in the hospital can be implemented by means of a patient safety program.

Patient safety program is a system to identify all possible hazards to which the patient exposed, during his course of treatment in the hospital and taking all possible precautionary measures to ensure that not only he/she recovers from the disease process (if possible) as quickly as possible but also remains safe and protected from all possible hazards and unexpected complications due to human and system failure.

Identification of possible hazards is of great importance. Possible hazards like:

- Unsafe buildings specially those in the earthquake prone areas and not designed/ retrofitted for earthquake resistance
- Unsafe equipments, engineering services, materials, environs
- Ill trained, unqualified, negligent
- Unsafe practices/ process

Aims of the study

To create a less sentinel event prone environment for the patients, attendants & visitors in wards of my hospital

Objectives

Based on aim, the following objectives are as follows:

- To enhance the patient safety in wards.
- To provide less sentinel event prone environment to the patients, attendants & visitors by reducing the number of sentinel events through RCA (Root Cause Analysis) and CAPA (Corrective Action and Preventive Action).

Methodology

The methodology of the project is based on the following:

- Data Collection
- RCA (Root Cause Analysis)
- CAPA (Corrective Action and Preventive Action).

Sample Size

The data that is being captured, studied and analyzed is of 1st quarter of 2012

International Scenario

Healthcare providers/ professionals all over the world, especially in the western countries, are becoming increasingly conscious of their responsibilities towards safety of the patients, partially because of the genuine concerns and partially due to fear of heavy penalties in terms of the loss of the image and huge financial compensation (civil/ criminal negligence law suits).

In the western countries (US/ Europe), many sophisticated programs are being used to ensure patient safety. They are as follows:

- **PRISMA Module (Prevention and Recovery Information System for Monitoring & Analysis)**
- **SIRE Module (Systematic Incident Reconstruction & Evaluation)**
- **HFMEA Techniques (Healthcare Failure Mode Effects Analysis)**

Among the above mentioned techniques PRISMA & SIRE are based retrospective analysis of Root Cause. HFMEA on the other hand, is a proactive approach to risk identification/ analysis/ assessment and risk prevention through process improvement.

PATIENT SAFETY POLICY

Patient safety is one of the nation's most pressing health care challenges. **Patient safety in itself** is a new healthcare discipline that emphasizes the reporting, analysis, and prevention of

anything which may harm patient medically or physically. Despite of various readings and various suggestions, bringing patient safety on floor has always been a challenge for the healthcare organization and Improving patient safety involves assessing how patients may be harmed, preventing or managing risks, reporting and analyzing incidents, learning from such incidents and implementing solutions to minimize the likelihood of them reoccurring. This is an initiative of **Yashoda Super Specialty Hospital, Nehru Nagar, and Ghaziabad** towards patient safety.

POLICY: Patient, Attendant & visitor Safety

PURPOSE: Ensuring the safety of everyone who comes into contact with the hospital

AREAS OF CONCERN:

- Environmental safety
- Safety from any accidents and incidents
- Medication safety
- Safety from Hospital Acquired Infections
- Promptness of the hospital in time of emergency
- Prevention of diseases

TOOLS:

- Informative board in all patient rooms
- Accident incident reporting form
- Monitoring of medication and bringing out the flaws
- Hospital infection control program
- All emergency codes

- Educational Brochures

ENVIRONMENTAL SAFETY

The first and foremost initiative of the hospital is to ensure that the environment of the hospital is safe and secure for every one who comes in contact with the hospital. We as a healthcare organization are situated in the western part of Uttar Pradesh surrounded by the hi-tech villages which has all technology in their reach and only thing away from them is education, so expecting religiously following hospital policies is still a dream and reporting of any mild or moderate drug reaction or slight failure in machinery is far beyond reporting. And to be specific when we thought of educating patient of Drug-drug interaction and adverse drug reaction reporting, we were in a fix. We launched education material on the same but found the patient least interested in reading it. Now it was a very big challenge for us to bring it in reality, and the came up an idea where patient was not educated neither was given an education material, but we switched to the idea of “**DISPLAY**”. We made a board with the title of “**SURAKSHA NIREDSH**” and wrote just around 8-10 points on all kind of safety and its reporting to the nurse Incharge immediately. The display board was of 12X18 inches and was pasted just in front of the patient bed in every room.

Our aim of this board was to create an optimum environment for reporting any kind of safety issues and educating patient about it in their vernacular language using non-technical terms.

Our major concern while applying this methodology was:

- **Self administration of drugs:** There are hospitals which do not allow patient to take medication of their own or if the patient is on regular medicine, it is usually deposited at the nurse station and the nurse does all the work, but at our place this was never easy as the patient either did not informed the nurse of his medication or did not handed over it to the nurse, looking at this problem we conveyed in the board about handling over the medication to the nurse, so that she can consult the doctor and give the medicine as per the requirement. The result was quite astonishing as the patients and their attendant started calling the nurse by themselves and started what was aimed.

- **Mild to moderate drug reaction:** As a I described earlier the category of the patients in our hospital also includes patient from villages who are strong by built and skin is not as soft and fair so that the mild rashes can be spotted upon and a result, there were cases where mild adverse drug reaction went unnoticed by the nursing staff as patient never complained of it and it only came in notice when the reaction was severe. So to ensure that the patient itself is vigilant enough to report, we in the board included a clause of medication safety where we specifically pointed out the all the condition which a patient may feel even in case of mild drug reaction and co-relating to that the patient can call the nursing staff and report it, so that next dose can be stopped. As expected the reporting of drug reaction increased and severe drug reaction is now almost negligible.
- **Fire safety:** The staff of the hospital has been trained in fire safety by the fire department of Ghaziabad, but still a major concern left was the reaction of the patient at the time of fire. It was necessary to ensure that the patient felt safe in our hospital. To cover our this concern we included a point of “agni suraksha” in our board which conveyed the important message that the staff of the hospital is trained by the fire department and you need not worry in case of fire. We even conveyed through it that out of every room in the corridor there is glow board which will direct you to move out in case of fire.

Other than these initiatives other modes adapted to make safe and secure environment are as follows:

Grab Bars – Grab bars have been installed in lifts, ramps and wash rooms of the patients to make sure that the patient remains safe in the hospital.

Antiskid taping- All the slant ramps of the hospital has been made fall proof by the use of antiskid carpets and by using tiles with the grooves for better grip of the patient, visitor and attendant.

Safety belts in all patient transport vehicles: The hospital has ensured that patient when received in the hospital and till the time reaches to the desired destination remains safe and

therefore in all the transporting vehicles like wheel chairs and stretchers have a safety belt which keeps the patient safe and minimizes the chance fall.

SAFETY FROM ANY KIND OF ACCIDENTS AND INCIDENTS

Accidents can never be predicted but precautionary moves can be made in anticipation. We, at Yashoda Hospital have tried to form strategies against all kind of accidents and incidents ranging from “**no harm to sentinel events**”. To ensure that all these are reported the important factor was to create an environment where the staff can have confidence in the management that is a non punitive exercise meant for the safety of the patient and staff. An accident incident form is used as a tool to capture all such incidents and make strategy after the analysis of the all such events. These events are:

- Accidental Removal of tubes and catheters
- Hematoma at puncture site
- Medication error
- Contrast related reactions
- Incidence of fall
- Bed Sore after admission
- Needle Stick Injury
- Near Misses

To ensure that a robust system is grounded amongst the grass root level workers, we formulated some policies and the necessary information has been shared with the staff for prompt reporting. Some policies are as follows:

NEAR MISS ANALYSIS POLICY

Before analyzing “near miss” one should know that what exactly a near miss is, so to define it can be defined as:

“A **near miss** is an unplanned event that did not result in injury, illness, or damage – but had the potential to do so. Only a fortunate break in the chain of events prevented an injury, fatality or damage.

OR

A “near-miss” is an event that signals a system weakness that if not remedied could lead to significant consequences in the future. As such, a near-miss is also an opportunity – an opportunity to improve system structure and stability, and an opportunity to reduce risk exposure to potential catastrophe.

A near miss in our systems has always been ignored as it rarely leads to any loss, and in a study conducted in U.S it was found that out of 100 such cases only one results in injury.



To best utilize a near-miss and ensure that the incident does not recur, a near-miss is managed through seven consecutive stages. These are:

1. Identification
2. Disclosure
3. Distribution

4. Root-Causes Analysis

5. Solution Identification

6. Dissemination to Implementers

7. Resolution

1. IDENTIFICATION

The identification part is the most important part of the near miss analysis. The near miss is identified through a proper training and orientation of the staff on the near miss events. The staff has been trained to report all kind of incidents and accidents to the quality cell within 24 hrs and then the quality manager defines the event as per the criteria.

2. DISCLOSURE

Though a near-miss is identified, its value may be lost if management does not both facilitate and encourage disclosure of the recognized occurrence. Management has tried creating a culture through which the event is disclosed to the quality cell. An Accident Incident reporting form has been designed as a tool to disclose the event.

ACCIDENT/INCIDENT REPORTING FORM

Name: _____ Age/Sex: _____

Address

Please Tick:

Patient

Health Care worker

Visitor

Type of accident/ incident / sentinel event

Clinical:

Accidental Removal of tubes and catheters		Anaesthesia related Mortality	
Hematoma at puncture site		Incidence of fall	
Medication error		Bed Sore after admission	
Contrast related reactions		Needle Stick Injury	
Adverse Anaesthesia Event		Mercury Spill	
Other Sentinel Event		Near Misses	

Non Clinical: Loss of valuable Items/ Damage to property/ any other:

Information in detail about the event:

Name & Signature of the sister in-charge informed

Time when information sent to the Medical Superintendent

Root cause analysis of the event:

Steps taken by the management:

Signature: M.S/D.M.S

3. DISTRIBUTION

Distribution is the process through which the report of any incident reaches from the person disclosing the event to the people who takes the decision to ensure that it does not recur. It is important that the distribution of the event is quick as quick distribution helps ensure fast resolution, which reduces the likelihood that the potential accident could occur.

4. ROOT-CAUSES ANALYSIS

In the analysis of an incident it is necessary to:

- a. Assess the direct and underlying root causes that enabled an incident.
- b. Determine corrective actions or solutions to rectify the root cause such that recurrence is much less likely.

The RCA part of any incident or near miss is specifically the privilege of the quality manager who depending on the potential severity and complexity of the near miss, determination of causes is performed informally between discloser and direct supervisor, or if required an investigation team is formed for a thorough analysis with subsequent recommendations.

5. SOLUTION IDENTIFICATION

Based on the RCA or recommendations by the committee all solutions are scrutinized to assess whether there are other detracting factors (such as expense, employee acceptance, management acceptance, new incurred risks, etc.)

6. DISSEMINATION TO IMPLEMENTERS

In the dissemination stage, corrective actions are sent to all parties that can benefit from the information. This includes people implementing corrective actions at the location where the near-miss has occurred. However, at this stage, it is also disseminated to a much larger audience.

7. RESOLUTION

Not only is it important to resolve a near-miss to ensure that the potential accident does not occur, it is intrinsic to the success of a near-miss program. If, based on their observations, individuals perceive that near-misses are not acted on; they will not disclose near-misses in the future. Consequently, in this stage, systems that ensure the full value of near-misses are assessed using criteria, such as good tracking mechanisms and effective promotion of resolutions.

BED SORE MANAGEMENT POLICY

Bed sore now a days is directly linked with the nursing care in the hospital. In the 1st quarter of the year 2012, two bed sores were reported after the admission. The hospital owes complete responsibility of care the bed sore getting erupted in the case after the admission. The first and

foremost importance is given to the notification of the ulcer which can be obtained only through good nursing practices and on later stages the cases are managed on two broad parameters

Etiological factors: Pressure, Friction, Aggravating factors like excess moisture & Temperature

Management of Ulcers (Nursing care) : Bed & bedding technique, Hygiene of the patient, Skin care, Medication

Management

Pressure: To ensure that the sore doesn't aggravates, the basic etiological factor that is pressure has to be removed from the series causing bed sores. The patient bed mattress must be changed form normal one to alpha bed to ensure that the pressure point is not concentrated on a single spot especially on the area of the sore.

Friction: The staff (GDA/Housekeeping) staff must be alarmed to ensure that they handle the patient with utmost care and the shifting and bed management is done with minimum friction.

Moisture & Temperature: The bed sore can aggravate with the persisting moisture at the pressure point and increased temperature in the patient care area. The patient with the bed sore is managed by the senior staff nurse who ensures the dryness of the ulcers through proper dressing as per the condition. The emphasis is to keep the ulcer as dry as possible.

Bed & bedding technique: The bedding technique is the method which can restrict the spread of the ulcerative area or increase the size of the ulcer. Proper bedding technique pays emphasis on the wrinkle free bed for which the staff is taught to check the bedding after short intervals and ensure the tight bedding sheet.

Hygiene of the patient: The patients with bed sores are usually those who have restricted movement or no movement at all, and therefore hygiene becomes very important factor in care of the ulcers. Keeping the patient dry that is without sweat and taking care of toileting needs of the patient. There are two options available for toileting needs one is adult diapers and catheter. In both the cases the staff is trained to take care of the requirements to ensure that patient remains dry.

Skin care: The skin care is the management of the wound so that the ulcer does not progress. Skin care is done by the dresser especially trained on the dressing techniques and nursing staff to keep the area dry.

MEDICATION SAFETY

POLICY FOR EVALUATING MEDICATION ERROR

Medication error has been a problem which has haunted every health care organization, and we are also not untouched. The soul for formulating this policy is to evaluate medication error from all angles and leave no stone unturned for its prevention.

Error in medication has the occurrence at three levels:

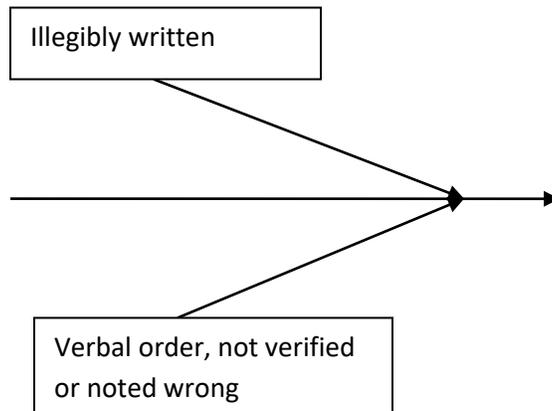
Stage 1: Prescribing

Stage 2: Dispensing

Stage 3: Administration

Stage 1: Prescribing

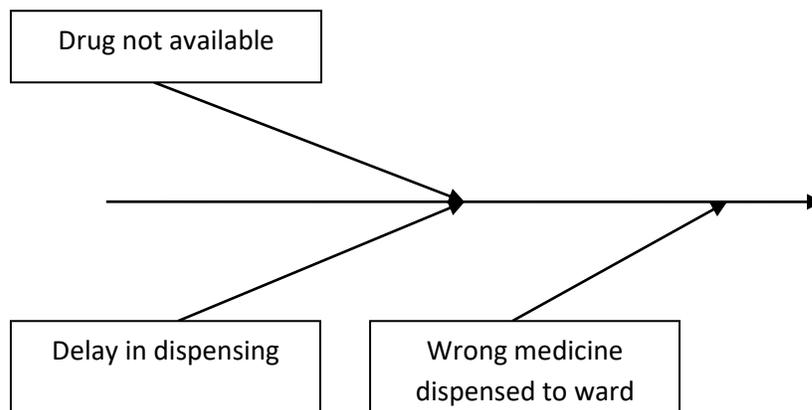
The prescription of the medicine is done by the doctor but still a ray of error can be found. The medication is ordered by the doctor either by writing or by verbal orders, and in both the stages error can happen.



Stage 2: Dispensing

The dispensing of the medicine is done at the Pharmacy, and this becomes another stage of error because of two reasons that are:

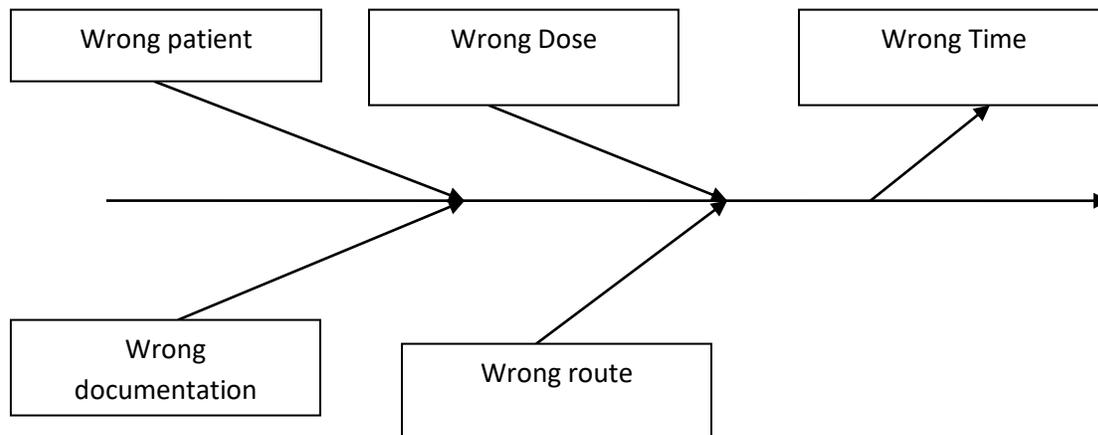
1. Drug not available and he gives a substitute, (since patient is allowed to bring medicine from out side, this cannot be ignored).
2. Delay in dispensing by the pharmacist.
3. Wrong medicine



Stage 3: Administration

This is the most vulnerable stage of medication error, but this stage is directly linked to other two stages. We have minimized the rate of illegible handwriting by ensuring that the medication is transcribed a MBBS doctor and in block letters. But the errors still happen and the basic reason behind this is, Non conformity with the 5 rights of administration which are as follows:

1. Wrong patient: Administration of drug without verifying the I.P number with patient and drug
2. Wrong Dose: Dose not clear
3. Wrong Time: Medicine not available on time or not administered on time.
4. Wrong documentation: Drug given and not marked in the medication chart and vice-versa
5. Wrong route: Rare



All above stated are the root cause behind any kind of medication error and to have a robust system to minimize it a prevention policy is being framed

Preventive Action in Stage 1: Prescribing

- The medicine must be clearly written, specifically in case the dose in decimals like 2 mg or 5 mg, it should be written as 0.2 mg or 0.5 mg. and in case nursing staff is not

sure they must ask directly to the one who had prescribed the drug rather than the duty doctor.

The protocol for verbal order must be enforced strictly. The protocol says that the verbal order has to be verified by the consultant within next 4 hrs or in case of night time as soon as the consultant visits the patient. Moreover the verbal orders must be restricted

- to emergency cases and the orders must be transcribed by the duty doctor rather than the nursing staff.
- The usage of abbreviation like OD BD or QID must be clearly mentioned and instruction should also be communicated to the nursing staff in hand over takeover time.

Preventive Action in Stage 2: Dispensing

- The environment for dispensing the medicine must be such that noise level remains to minimum with negligible distraction. The area must be well lit and ventilated.
- The staff must be well aware of the LASA and high risk medication policy.
- In case the staff is not clear at stage he must directly talk to the prescribing doctor.

Preventive Action in Stage 3: Administration

- The staff must be well aware of five rights of administration, which includes immediate documentation of the medicine after administration.
- The staff must double check all high risk medicines.
- The staff must be adequately trained in the usage of devices used for administration of the medicine like infusion pump etc.

Above all the preventive action, swift and stringent should to be taken for correction of the medication error after the analysis of incident accident reporting form.

SAFETY FROM HOSPITAL ACQUIRED INFECTIONS

Hospital runs a full fledged hospital infection control program under the guidance of skilled microbiologist and two infection control nurses. The initiatives taken by the hospital other than the infection control program are:

Display of the Standard safety precaution: A board containing standard safety precautions has been installed at all nursing stations

Abundant supply of PPE to the hospital staff: The management has allotted a part of the hospital budget for Infection control program and PPE's take major part of that fund. The staff has been trained for the use of the PPE's.

Standard safety precautions

Components of Standard Precautions	Recommendations
Textiles and laundry	Minimum agitation. Place clean linen in black bag. Place soiled linen in yellow bag
Needles and other sharps	Do not recap used needles. Dispose in sharp container. Use single use syringe
Patient resuscitation	Use mouthpiece, resuscitation bag
Patient placement	Prioritize for single-patient room if patient is at increased risk of transmission, is likely to contaminate the environment, does not maintain appropriate hygiene
Respiratory hygiene/cough etiquette	Instruct symptomatic persons to cover mouth/nose when sneezing/coughing; maintain spatial separation of >3 feet. ¹

Display of hand washing techniques for proper compliance:

and is able to display the adequate hand washing practices, each patient care area has been given adequate space for hand washing and a poster has been displayed for it technique.

PROMPTNESS OF THE HOSPITAL IN TIME OF EMERGENCY

Hospital not only works in anticipation but keeps itself updated and ready for the all kind of emergencies, and to ensure that panic does not spread amongst the patient, visitor or attendants we have formulated 6 codes for various kind of emergencies, these are:

1. Code blue : Medical emergency
2. Code Red : Fire
3. Code Pink : Infant abduction
4. Code Yellow : External Disaster
5. Code orange : Spill
6. Code Violet : Violence

The hospital has provided extensive training to all the hospital staff to how to react in case of any emergencies. Mock drills are also conduted on regular intervals to check the promptness of the staff.

EDUCATIONAL BROCHURES

We take complete responsibility as a HCO to not only keep the patient safe but also educate the patients to how to prevent the diseases and in this row a HCO has prepared 24 educational brochures providing information about various conditions and methods to prvent them.

WE UNDERSTAND THE VALUE OF HUMAN LIFE AND OUR ROLE IN THE SAFETY OF ANY PERSON COMING AT OUR SET UP. OUR ENTIRING EFFORTS ARE CONTINOUS AND WE ARE ORIENTED TO LEAVE NO STONE UNTURNED IN THE FIELD OF PATIENT SAFETY.

Review of Literature

Sentinel Events

Definition:

An unexpected incident, related to system or process deficiencies, which leads to death or major and enduring loss of function for a recipient of health care services.

The major or enduring loss of function refers to sensory, motor, physiological impairment not present at the time services were sought or begun. The impairment lasts for a minimum period of two weeks and is not related to an underlying condition.

Types of events:

Surgical Events

- Surgery performed on the wrong body part
- Surgery performed on the wrong patient
- Wrong surgical procedure performed on the wrong patient
- Retained instruments in patient discovered after surgery/ procedure
- Patient death during or immediately post surgical procedure
- Anaesthesia related event

Device or product events

Patient death or serious disability associated with:

- The use of contaminated drugs, devices, products supplied by the organization
- The use of function of a device in a manner other than the devices indent use
- The failure or breakdown of a device or medical equipment
- Intra vascular air embolism

Patient Protection Events

- Discharge of an infant to the wrong person
- Patient death or serious disability associated with elopement from the health care facility

- Patient suicide, attempted suicide, or deliberate self-harm resulting in serious disability
- Intentional injury to a patient by a staff member, another patient, visitor, or other
- Any incident in which a line designated for oxygen or other came to be delivered to a patient and contains the wrong gas or is contaminated by toxic substances
- Nosocomial infection or disease causing patient death or serious disability

Environmental Events

Patient death or serious disability while being cared for in a health care facility associated with

- A burn incurred from any source
- A slip, trip, or fall
- An electric shock
- The use of restraints or bed rails

Care Managements

- Patient death or serious disability associated with hemolytic reaction due to the administration of ABO- incompatible blood or blood products
- Maternal death or serious disability associated with labour or delivery in low risk pregnancy
- Medication error leading to the death or serious disability of patient due to incorrect administration of drugs, for example:
 - Omission error
 - Dosage error
 - Dose preparation error
 - Wrong time error
 - Wrong rate of administration error
 - Wrong administrative technique error
 - Wrong patient error

- Patient death or serious disability associated with an avoidable delay in treatment or response to abnormal test results

Criminal Events

- Any instance of care ordered by or provided by an individual impersonating a clinical member of staff
- Abduction of a patient
- Sexual assault on a patient with in or on the grounds of the health care facility
- Death or significant injury of a patient or staff member resulting from a physical assault or other crime that occurs within or on the grounds of the health care facility.

“Patient Safety in Wards”

The whole idea of patient safety in a health care setup revolves around the **Sentinel Events**.

Sentinel Events: Although it is easy to define Sentinel Events but it is quite difficult to track it. In a present scenario when Average Length of Stay is not more than 4 days and rarely a patient stays in the hospital for 7 to 8 days, where anaesthesia mortality is reaching to negligible rate, keeping an eye on sentinel event or tracking a sentinel event has become a cumbersome job.

It would be foolish to say that there is no sentinel events happening in the hospital rather it would be wise to quote **“Ignorance is Bliss”**, and therefore to ensure an adequate reporting & tracking of sentinel events, one needs to go beyond the definition.

In a hospital, to ensure that every event is reported needs a cultural transformation and defining it as Sentinel remains in the hands of Quality Cell.

In order to make a robust tracking system, we have designed an Accident/ Incident Reporting Form. Considering the fact that these Accident/ Incident can lead to Sentinel Event, we have tried creating an environment where each such accident is reported at the earliest.



Tool

ACCIDENT/INCIDENT REPORTING FORM

Name: _____ Age/Sex: _____

Address

Please Tick:

Patient

Health Care worker

Visitor

Type of accident/ incident / sentinel event

Clinical:

Accidental Removal of tubes and catheters		Anaesthesia related Mortality	
Haematoma at puncture site		Incidence of fall	
Medication error		Bed Sore after admission	
Contrast related reactions		Needle Stick Injury	
Adverse Anaesthesia Event		Mercury Spill	
Other Sentinel Event		Near Misses	

Non Clinical: Loss of valuable Items/ Damage to property/ any other:

Information in detail about the event:

Name & Signature of the sister in-charge informed

Time when information sent to the Medical Superintendent

Root cause analysis of the event:

Steps taken by the management:

Signature: M.S/D.M.S

Methods for Data Collection

- Creating a Non-Punitive conducive environment
- Prompt reporting by the staff to the Quality Cell
- Regular Rounds

Creating a Non-Punitive conducive environment

Creating of non-Punitive conducive environment can be done by giving orientation and providing training to the staff by means of training sessions, handouts and education material.

Prompt reporting by the staff to the Quality Cell

This can be done by building a positive rapport between staff and the Quality cell so that they are not afraid to report the incidents rather they report the incidents at the earliest.

Regular Rounds

Rounds can be of high utility for identifying and enquiring about such events and conduction of **HIRA** (Hazard Identification and Risk Analysis) rounds as a preventive action.

Areas of Concern

The following are the areas of concern:

- Accidental Removal of Tubes/Catheters
- Hematoma at Puncture Site
- Medication Errors
- Incidence of Fall
- Bed sore after admission
- Near miss

Accidental Removal of Tubes/Catheters

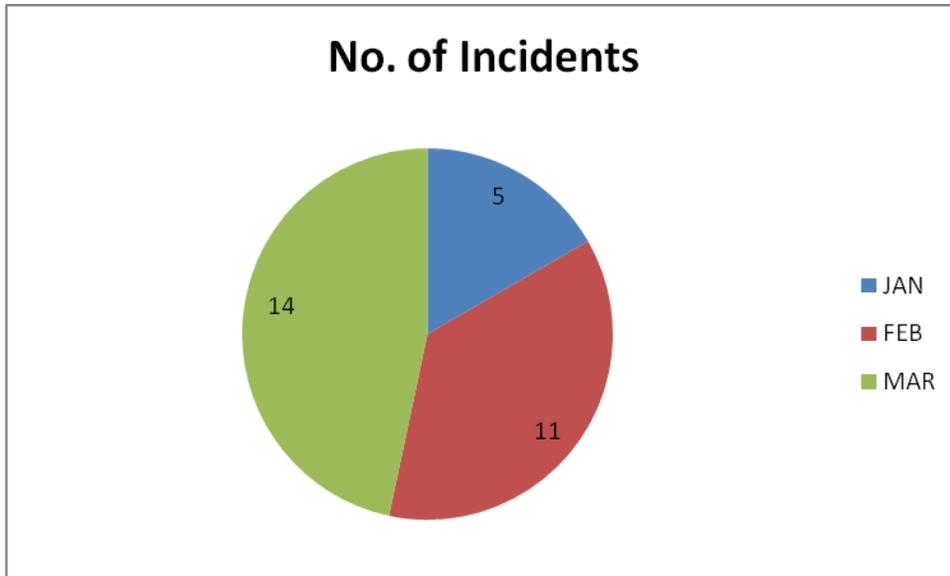
It is directly related to the patient safety, the adversity can range from no-harm to Sentinel Event.

To ensure patient safety we monitor all catheterized patients, all patients on ventilator and other patients who get the tube inserted through invasive procedure, to keep a check on such incidents.



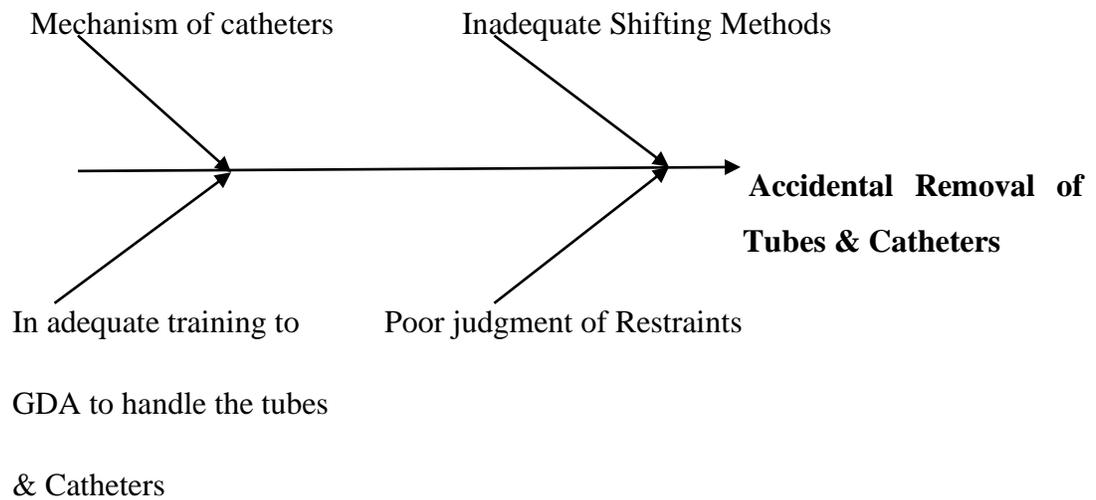
DATA FOR ACCIDENTAL REMOVAL OF TUBES & CATHETERS

	JAN	FEB	MAR
No. of Incidents	5	11	14



Till now there is no Sentinel Event in this category but there have been near misses which were investigated and termed as no-harm.

RCA: Inadequate hanging

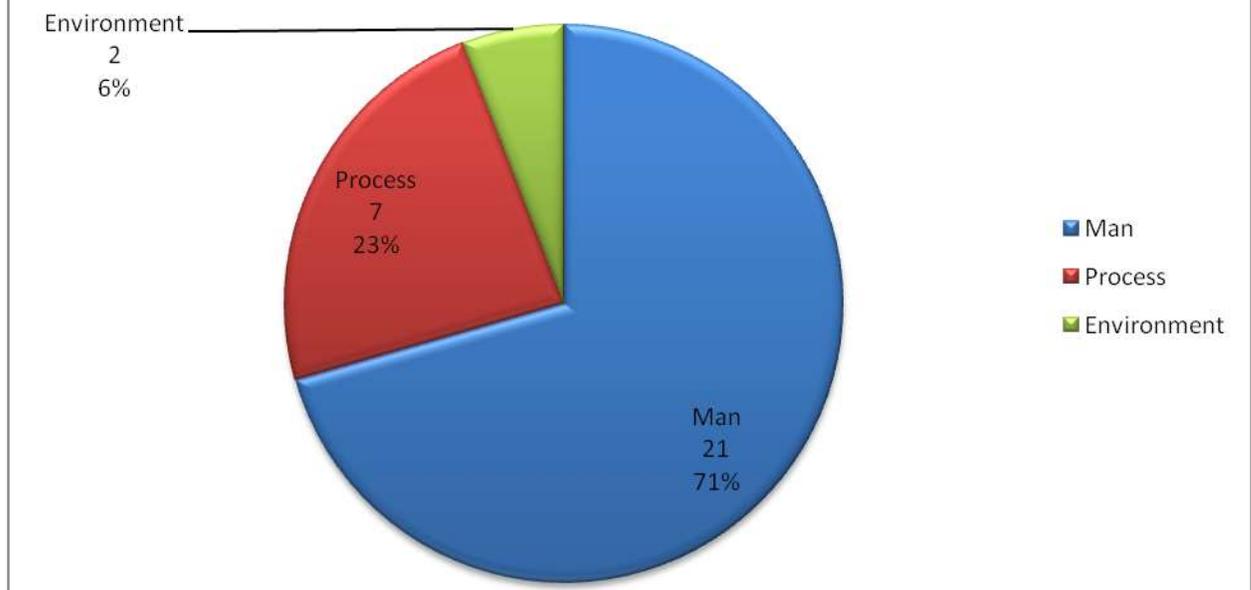


The RCA is being done on the basis of three criteria that are:

- Man
- Process
- Environment

Total no. of incidents in 1st quarter of 2012 : 30

Accidental removal of Tubes 1st quarter of 2012 : 30



CAPA:

Since it is an accidental category, anticipated steps can never be taken hence the action taken by management remains always preventive.

As it is majorly linked with the man, in course of prevention, training remains the only tool for safety of the patient and is given at all the levels viz. Nursing staff, GDA staff as well as the Patients

Hematoma at Puncture Site

This is also an area of concern which is directly related to the patient safety. The adversity in this category also can range from no-harm to Sentinel Events.

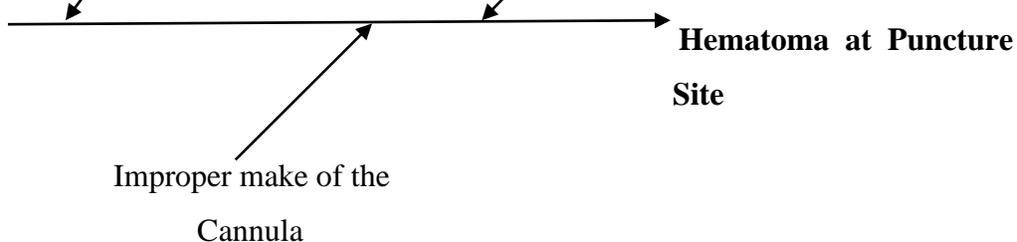
Hematoma at Puncture Site			
	JAN	FEB	MAR
No. of Hematoma	11	10	3

Till now there is no Sentinel Event in this category but there have been near misses which were investigated and termed as no-harm.

RCA: Inadequate methods cannulation

& blood drawing

Inappropriate Needle Bore

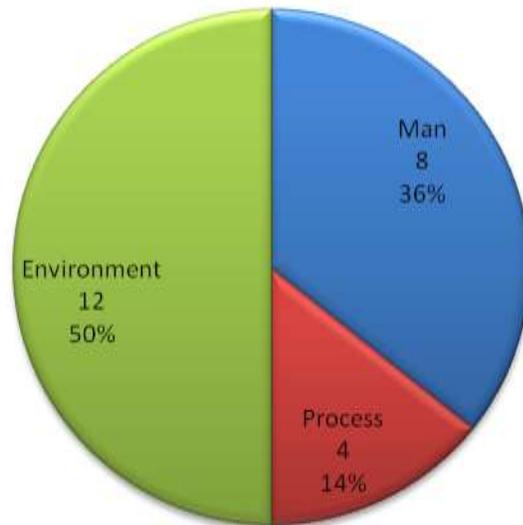


The RCA is being done on the basis of three criteria that are:

- Man
- Process
- Environment

Total no. of hematomas in 1st quarter of 2012 : 24

No. of Haematoma at Puncture Site in 1st quarter of 2012



CAPA:

After RCA it is found that in the Environment factors, majority of the incidents were occurred because of the conventional make Cannulas and inappropriate needle bore.

The conventional make cannulas were being replaced by the new technology BD cannulas as a preventive measure. For rest of the percentage in pie chart, the training is given to the nursing staff for the correct method of drawing of blood.

BED SORE AFTER ADMISSION

Two cases were reported where the patient developed bed sore after the admission in the hospital.

CASE 1: The Patient was admitted with the complaints of CVA & RTI and the bedsore was noted when the patient was shifted to ward after 6 days from HDU. The staff when notified that to the Quality cell, in the course of RCA when the attendants were interviewed it was found that the patient had the bed sore even before the admission.

ROOT CAUSE ANALYSIS

The Root cause of the whole episode was improper filling of the Nursing admission assessment form, had it been filled properly the staff would have taken care of all the required norms and protocol necessary for the management of the bed sore.

CAPA

1. The nursing superintendent was instructed to ensure that the nursing protocols are followed strictly.
2. A class was also organized for the all the nursing in charges on – how to fill the nursing papers in the file.

CASE 2: The patient was admitted for the treatment of hemiplegia. The patient was of 48 years and hence was immobile. Assisted walking was a part of the care but the patient still developed laceration at the buttocks. The case was reported on the first stage therefore was managed carefully restricting it to stage 1.

ROOT CAUSE ANALYSIS

1. The patient had a limited mobilization therefore the patient should have been admitted on the alpha bed rather than waiting for the laceration to develop.
2. All management protocols enlisted in the policy should have been taken care off rather than one that is bed management, which was not done.
3. The patients with the restricted mobilization or no mobilization must be anticipated with these problems and must be taken care off as per the policy, which was not done.

CAPA

1. To ensure that patient gets proper care more air mattresses were purchased and were made available to nursing staff. (31 air mattress are available across the hospital)
2. The nursing staffs were trained on the bed sore policy to ensure that they manage the patient strictly on the guidelines.

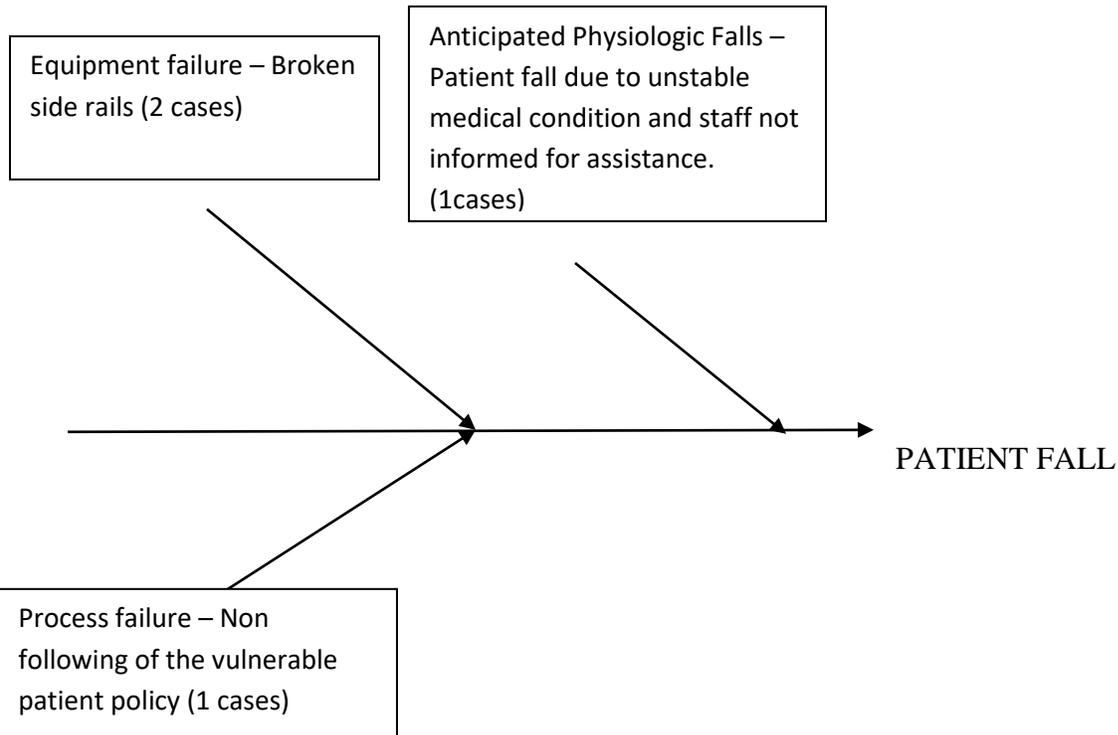
INCIDENCE OF PATIENT FALL

Patient falls is monitored in the hospital with the zeal of environmental safety for the patients. It has been pointed by the studies that patient fall is accounted mainly of three reasons

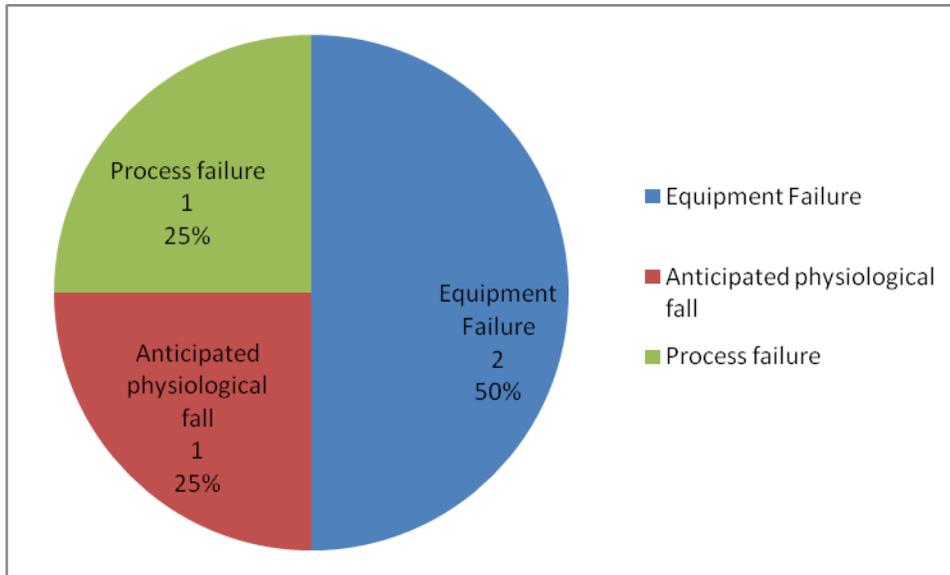
- Anticipated Physiologic Falls – in which the risk scale is high as noted in nursing admission assessment form.
- Accidental falls – Not expected
- Unanticipated physiologic falls - occur when the physical cause of the falls is not reflected in the patient’s risk factor for falls.

During the analysis it was found that there were 4 cases reported in the category of patient fall.

ROOT CAUSE ANALYSIS



<u>Patient FALL</u>		
Equipment Failure	Anticipated physiological fall	Process failure
2	1	1



CAPA

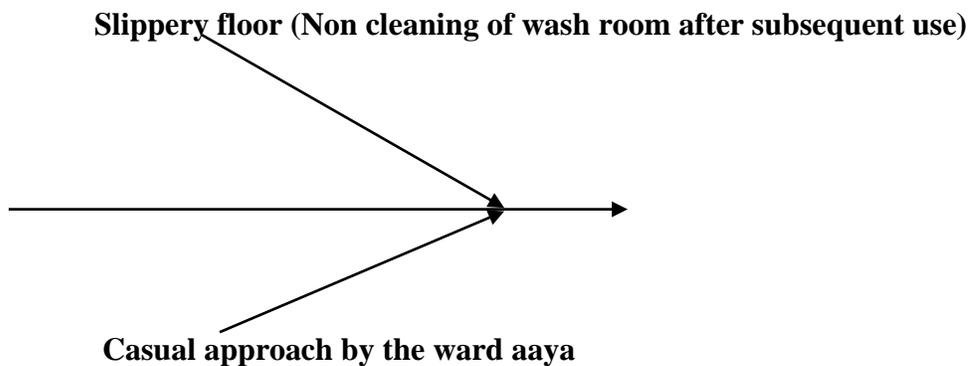
1. The Side rails of the beds repaired & the staff oriented to report all such problems to the maintenance Incharge at the earliest and in case problem is not resolved ahs to be informed to quality cell.
2. The staff re-trained on vulnerable patient policy paying emphasis on the point of not leaving the patient alone if the attendant is not present.
3. The nursing staff trained on filling of the nursing admission assessment form which includes fall risk assessment.
4. The RMO's oriented on the point of explaining the patient to seek help for toileting and other needs until the medical team declares him/her fit.

NEAR MISS FOR 1ST QUARTER 2012

There was one near miss notified in the 1st quarter of 2012, a patient fall prevention.

EVENT 1: PATIENT FALL

- 1. IDENTIFICATION:** The fall which was prevented in the J.D (Ward number 4) was identified by the ward I/C Mr. Akeel on 19th February 2012.
- 2. DISCLOSURE:** The event was disclosed in the form of Accident incident reporting form, which was sent to the quality cell on 20th February 2012.
- 3. DISTRIBUTION:** The form was submitted to the quality cell on 20th of February and the medical superintendent was informed by the DMS-Quality. The M.S asked the quality cell to do the RCA and inform the root cause to him.
- 4. ROOT-CAUSES ANALYSIS:**



- 5. SOLUTION IDENTIFICATION:** It was identified that in J.D ward the wash rooms are use quite frequently and the drying/mopping protocol at that day was not followed strictly, leading water droplets accumulation on the floor, the house keeping Manager was called and asked to ensure that the cleaning protocols are followed strictly, moreover the general toilets after every used must be mopped, to ensure the floor is dry. The ward aaya was warned verbally to stay with the patient till the patient reaches the bed from the wash rooms; she must also accompany the patient in the wash rooms as well. It was also listed that the floor must be scrubbed to remove the debris which has got collected on the floor make it slippery.

The solutions identified: Cleaning of floors more frequently especially after use and scrubbing of floor.

6. DISSEMINATION TO IMPLEMENTERS: The information was shared with the housekeeping Incharge and Maintenance manager for cleaning and scrubbing of the floor.

7. RESOLUTION: The floor was scrubbed, cleaning protocol followed more strictly.

MEDICATION ERROR

The medication errors were extensively analyzed to ensure that a proper corrective action is initiated after finding the root cause. The system of tracking the error through a proper format was started in the month of December 2010, but as expected all system takes time to reach the grass root level and it took us months to teach the staff about the importance of the notification of the medication error. To built a belief in the staff that it will be a non punitive exercise it took us months and to add a value to it we interacted with the consultants and encouraged them to inform any such incident to quality cell.

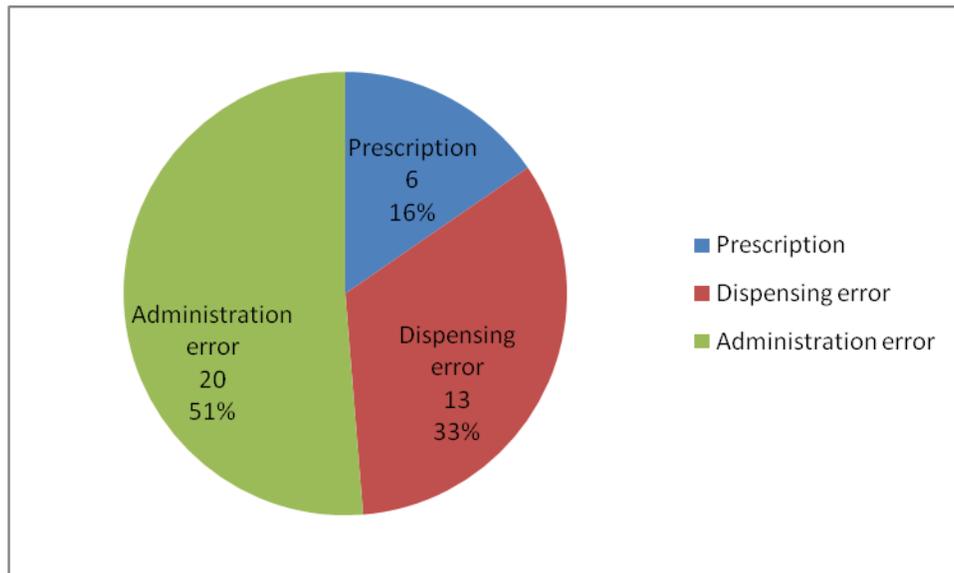
The total medication error we were able to track in 1st Quarter of 2012 were 39 and Error in medication has the occurrence at three levels:

Stage 1: Prescribing

Stage 2: Dispensing

Stage 3: Administration

Prescription	Dispensing error	Administration error
6	13	20



Error at Level 1

Prescription Error (6)

The medication error calculated at the time of prescription was 6 that is 16% of the total medication error. When a root cause analysis was done it was found that out of 6, 4 medication error were due to illegible handwriting of the doctors and 2 were due to the Transcription by the nurse

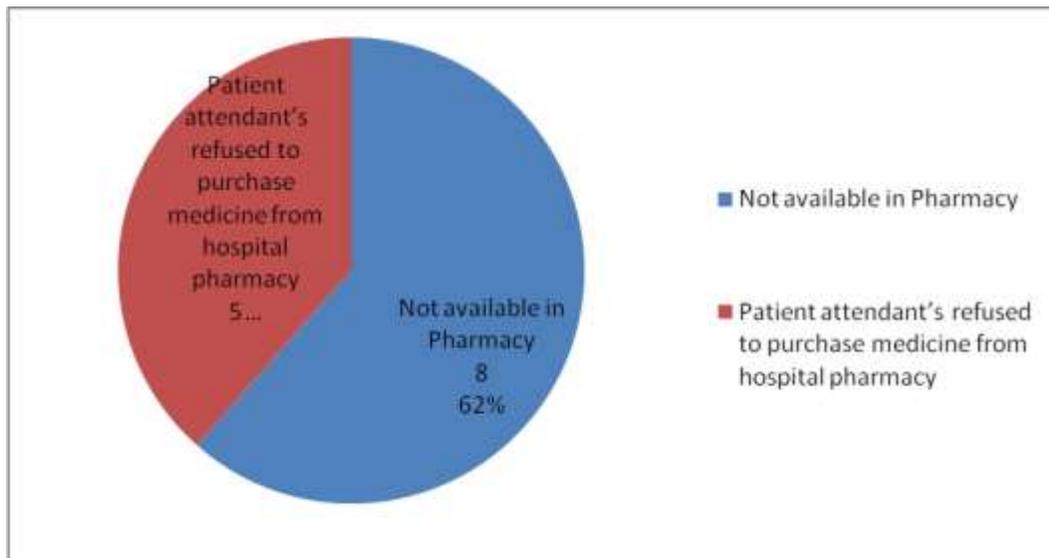
Illegible handwriting	Transcription by nurses
4	2

Error at Level 2

Dispensing Error (13)

The error noticed at the second level was 13(33% of the total medication error)

Not available in Pharmacy	Patient attendant's refused to purchase medicine from hospital pharmacy
8	5



Error at Level 3

Administration Error (20)

The error noticed at the third level was 20(51% of the total medication error)

Category	Numbers
1. Wrong Time (Patient shifted for Investigation, Patient NPO)	11
2. Wrong Drug	3
3. Wrong Dose	2
4. Refusal by the patient	3
5. Documentation error	1
Total	20

Corrective Action at Level 1: Prescription

The action initiated by the management acted as a single shot for both the problems. **The RMO's Were Asked to transcribe the medicine from the Consultant's note in the capital letters** in medication chart resulting in the correction of transcription error and a better understanding of the medicines. Moreover the consultants were also requested to write the medicines in the legible form.

Preventive Action in Stage 1: Prescribing

- The medicine must be clearly written, specifically in case the dose in decimals like 2 mg or 5 mg, it should be written as 0.2 mg or 0.5 mg. and in case nursing staff is not sure they must ask directly to the one who had prescribed the drug rather than the duty doctor.
- The protocol for verbal order must be enforced strictly. The protocol says that the verbal order has to be verified by the consultant within next 4 hrs or in case of night time as soon as the consultant visits the patient. Moreover the verbal orders must be

restricted to emergency cases and the orders must be transcribed by the duty doctor rather than the nursing staff.

- The usage of abbreviation like OD BD or QID must be clearly mentioned and instruction should also be communicated to the nursing staff in hand over takeover time.

Corrective Action at Level 2: Dispensing

- In this part it was found that the maximum of the errors reported was due to non availability of medicine in the pharmacy, this was considered a serious flaw and the pharmacy incharge Mr. Vijay was asked by the management to report the stock outs to the quality cell after every month end. Although the number reduced considerably once the monitoring was started.
- The other reason in this level was Patient's attendant purchasing the medicine from outside the hospital ,nothing much can be done in this part other than a verbal counseling of the patient, mentioning the pros and cons of outside purchase of the medicine.

Preventive Action in Stage 2: Dispensing

- The environment for dispensing the medicine must be such that noise level remains to minimum with negligible distraction. The area must be well lit and ventilated.
- The staff must be well aware of the LASA and high risk medication policy.
- In case the staff is not clear at stage he must directly talk to the prescribing doctor.

Corrective Action at Level 3: Administration

- **Wrong Time**: This aspect was taken care by the adequate supply of the drugs from pharmacy in time.
- **Wrong drug**: The main reason behind the error was not following the LASA protocol and illegible handwriting in the medication chart. The handwriting part was taken care by RMO's transcription and for LASA protocol; at pharmacy level colored stickers were pasted on the containers of the LASA drugs to ensure that the staff is

cautious before dispensing the drug. And for the staff to take care of this was trained in the administration part specifically on LASA policy.

- **Wrong Dose:** The main reason behind this was illegible handwriting which was taken care off & not following the verbal order policy. The RMO's were trained in the verbal order policy and were instructed to obtain the signature of the consultant as soon as they come to see the patient next time after the verbal order.
- **Patient shifted for Investigation:** Another reason which emerged in the analysis as reason for medication error was Patient being shifted for Investigation which resulted in the time error of the medication. It was instructed to the nursing incharges that if the patient time for investigation and medication time is getting clashed, the medicine must be administered before sending the patient for investigation.
- **Patient refusal for the drug:** This was accounted solely on the counseling part of the patient either through doctors and nurses. The RMO's were given a verbal training by the M.S for counseling the patient in case the patient refuses to take the medicine.

Preventive Action in Stage 3: Administration

- The staff must be well aware of seven rights of administration, which includes immediate documentation of the medicine after administration.
- The staff must double check all high risk medicines.
- The staff must be adequately trained in the usage of devices used for administration of the medicine like infusion pump etc.

Outcome of the Analysis

After the analysis of each error, it was found that in 39 cases there was no noticeable effect of the medication error on the patient, how ever in one case of HDU it was found that patient

condition got severe due to wrong dose (Tab Aldactone 250 mg was administered rather than 25 mg). We were lucky enough to save the patient, resulting in near miss.

Aim for next analysis:

The aim for next analysis would to note the error zone and compare the data with this baseline study. Although in the analysis we understand that it is underreported and hence will try to create a positive and non punitive environment for better reporting and qualitative analysis of the data to draw a positive inference.

OTHER IMPORTANT AREAS OF CONCERN

Environmental Safety

To keep the patient safe in wards ,another important aspect to reduce such events is paying due importance to environmental safety, although every part which I have defined so far is a part of safe environment of the patient but to categorize it more precisely. I just wants to point out few areas where we have worked like:-

- Keeping the environment free from fire by installing the Fire Hydrants, Smoke Detectors, and Water Sprinklers. If any incident of such kind happens, we have the proper evacuation plan and floor maps for fire exits which have been displayed on various areas of each floor.
- Making the washrooms of the patients a fall less area by means of installing anti-skit tiles, installing the grab bars and call bell.
- A management round (HIRA) to reduce the risk of electrical hazards, chemical hazards and material hazards.
- Disinfection program for the Water dispensers installed at various points in the hospital.

Tracking Sentinel Events through HAI (Hospital Acquired Infections)

This is a protocol in which the quality team along with the Microbiologist works proactively for the majority of the time and retrospectively for some of the cases.

In this aspect the quality team keeps the watch on the Length of Stay of the patient and investigates all cases whose Length of stay increases 16 days (14 + 2 = 48 hours to term the infection as Hospital Acquired Infection and 14 days to categorize it as Sentinel Event).

Conclusion

It is an effort to make the wards a sentinel Event free zone but it would be very early rather foolish to say that it is ever possible to make the wards Sentinel Event free, rather our efforts is to minimize such incidents and ensure that no patient suffers due to the complacency of hospital, equipment or employee.

Since the Sentinel Event is an event in which there is a major enduring loss or death of the patient, no corrective action can justify these events. Therefore the soul of whole patient safety program is “**PREVENTION**”. Prevention is the only tool which can reduce its occurrence and patient can feel safe and secure in the hospital.

We wish to make the wards a safe zone with Minimal Adverse Sentinel Events.

Recommendations

- **CPOE**
- **BCMA**
- **EMR**
- Don't take “shortcuts”.
- Use check lists.

- Ask co-workers to complete double checks.

- Report any potentially dangerous patient situation to your Head.

- Take your training seriously; it will help you to identify safety issues.

References:

- www.qaproject.org/methods/resglossary.html
- <http://yashodahospital.org/>
- The ABCs of Patient Safety by Doni Haas, RN and Lorri Zipperer, MA© 2001 NPSF. www.npsf.org Haas D, Zipperer L. ABCs of patient safety.
- <http://www.who.int/patientsafety/en>
- Guide book to NABH Standards for Hospitals – Second Edition: April 2009
- <http://yashodahospital.org/index.php?page=hospital-network>
- <http://yashodahospital.org/index.php?page=joint-replacement-orthopaedics>
- “Quality Management in Hospitals” a book by Lt. Col. S.K. Joshi.