Summer Placement

In

Medica Superspeciality Hospital, Kolkata

(April 7th to June 1st, 2015)

A Report

By

Mr. Virat Neogi

Institute of Health Management Research, Jaipur

MBA in Hospital & Health Management

2014-2016

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that Virat Neogi, a student of MBA Hospital and Health Management at The IIHMR University, Jaipur, batch 2014-2016 has successfully completed his summer training from 9th April 2015 to 26th May 2015 in Linen and Laundry Department at **MEDICA SUPERSPECIALITY HOSPITAL, KOLKATA**. His approach in the study has been scientific and analytical. This summer training in partial fulfillment of course requirement is recommended for the award of Masters of Business Administration in Hospital and Health Management.

I wish him all success for his future endeavors.

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MEDICA Superspecialty Hospital
caring for life

CERTIFICATION NO : H-2013-0167
AN NABH ACCREDITED HOSPITAL

MHPL/HR-Communication/2015/06/0246

2nd June, 2015

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Virat Neogi**, a student of M.B.A. from **Institute of Health Management Research, Jaipur,** has successfully completed practical training at **Medica Superspecialty Hospital**, **Kolkata**, from **9th April 2015** to **26th May 2015**, as per his academic requirement.

Mr. Neogi prepared a project report on **"TAT in Linen and Laundry & Bed-Making"** and has been exposed to the functioning of Housekeeping Department.

We wish him all the best for his future endeavors.

Madhumita Roy

Madhumita Roy
AGM-Human Resources

Dipshika Das.

Ms. Dipshika Das
Manager-Housekeeping

RC

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Acknowledgements:

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I am extremely indebted to all the professionals at Medica Super speciality Hospital (MSH, Kolkata)for sharing generously their knowledge and precious time which inspired me to do best during summer training .I owe a great debt to Group President Vice and CEO, Mr Udayan Lahiri and VP Operations Mr Komal Dashora and VP HR Mr. Sudhanshu Roy (MSH, Kolkata) for providing me an opportunity to work as a Mgmnt. trainee in their organization. I would like to thank Mrs. Dipshikha Das (Manager, Housekeeping) mentor for the summer training in MSH, Kolkata, without whose help it would not have been possible for me to understand the hospital to the extent as I have now. I am highly grateful to all the staff of HK dept for their cooperation which enabled me to complete my special assignment in the department.

I am also grateful to all the other department heads and staffs for giving me time in spite of their hectic schedule .Without their active cooperation and participation it would not have been possible to accomplish my task.

Acronyms/Abbreviations:

- **A&E - Accident and Emergency**
- **DAMA -Discharge Against Medical Advice**
- **HCA -Health Care Assistant**
- **ALOS -Average Length Of Stay**
- **CMD – Chief Medical Director**
- **COO – Chief Operating Officer**
- **CGHS – Central Government Health Scheme**
- **CSSD – Central Sterile and Supply Department**
- **CT – Computerized Tomography**
- **ECG – Electro Cardiogram**
- **TMT – Treadmill Test**
- **EEG – Electro Encephalography**
- **EMG – Electro MyoGraphy**
- **HOD – Head Of Department**
- **HRD – Human Resources Department**
- **ICU – Intensive Care Unit**
- **SICU- Surgical Intensive Care Unit**
- **MICU- Medical Intensive care Unit**
- **HDU-High Dependency Unit**
- **PICU-Paediatric Intensive Care Unit**
- **NICU-Neonatal Intensive Care Unit.**
- **IPD – In-patient Department**
- **MSH – Medica Super Speciality Hospital**
- **MRD – Medical Records Department**
- **MLC – Medico Legal Case**
- **NICU – Neonatal Intensive Care Unit**
- **OPD – Out Patient Department**

About Summer Training:

The MBA in Hospital & Health Mgmt. program of Institute of Health management Research (IIHMR) aims at preparing professionally trained managers of health care organizations and hospitals to meet the increasing need for managerial skill. It involves a eight week summer placement for the first year students to provide them with a firsthand experience of the hospital and the hospital as a system or environment. As a part of the program I had the privilege to undergo my practical training at Medica Super Speciality Hospital, Kolkata to get a firsthand knowledge and experience about the functioning of the hospital. I worked all through under the operations team there from 7th April 2015 to 1st June 2015**.** The main aim of the summer training was to get exposed to operations of all the depts. hospital in general.

Objective:

The summer training program had the following objectives:

- To have a basic orientation of the hospital set up.
- To study the functioning of the hospital as a system and its departments as subsystems of the hospital.
- To observe all the department in terms of their location,work plan and staffing pattern.
- To study about the staffing pattern and job responsibility of staff.
- Doing a project which is helpful to me in understanding hospital working in a better way and to the organization.

METHOD OF DATA COLLECTION:

The data collected was primary and secondary data.

Primary data was collected by:

- Personal observation during the summer training and department visits.
- Further information was gathered by discussion with the department heads and staff on the basis of unstructured interview.

Secondary data was collected from:

- The past records and hospital management information system (HMIS).

Profile of MSH, Kolkata.

The Institution

Medica Super Speciality Hospital is India’s newest, most advanced tertiary care facility. It is designed to raise India’s global standing as a healthcare hub, with emphasis on excellence in clinical services, diagnostic facilities and research.

A vision to strength en healthcare in the communities we serve and empower patients to make informed choices was at the genesis of Medica Super Speciality Hospital, Kolkata Inaugurated in April 14, 2010, The Hospital is a significant CSR .It is designed to raise India’s global standing as a healthcare hub, with emphasis on excellence in clinical services, diagnostic facilities and research activities.

The 500 bedded hospital has over 60. full-time doctors, 300.nurses and about 50. Paramedical and growing.

It represents a confluence of top-notch talent,cutting edge technology,state of art infrastructure and most important, commitment . MSH, Kolkata offers doctors and patient’s cutting edge diagnostic and surgical solutions as well as the latest in IT systems. In many cases,they represent the first of their kind in the region.

MSH, Kolkata is fully geared in terms of talent ,technology, structure and spirit-to reshape perceptions regarding hospitals and redefine the concept of caring. Indeed, this globally benchmarked institution marks the beginning of a new era in Indian healthcare.

Overview.

The 500 –bed Medica Super speciality Hospital, one of the largest in eastern India, is also Kolkata's first green hospital, having applied for LEED (Leadership in Energy and Environmental Design) Certification developed by the US Green Building Council. The hospital is developed by Medica Synergie Pvt Ltd. A body of health care professionals providing integrated health care solutions along various verticals.

Medica Super Speciality Hospital at Kolkata is a tertiary care hospital with state – of – the-art facilities in Cardiology and Cardiac Surgery. Neurology and Neurosurgery, Orthopaedics (focussing on spine and joints), Gastroenterology and GI Surgery, Kidney diseases , including Nephrology, Urology and transplant Surgery, ENT and breast diseases, advanced Dialysis facilities, and a host of other services under one roof.

The hospital was designed keeping in mind the needs of patients and their relatives looking for specialized treatment , as an end – point in their search for excellence in clinical services, ambience, staff behaviour, and at a price affordable to all. MSH'S intension is to provide excellence in health care at the door step of Kolkata's and make it unnecessary for them to travel to north or south India for specialised treatment. MSH strives to build strong doctor – patient relationship.

MSH, Kolkata serves as the hub for the chain of hospitals in Ranchi and Jamshedpur (Jharkhand) Siliguri and Rangapani (North Bengal) and Tinsukia (Assam).

VISION

Committed to bring the best in health care

MISSION

To deliver excellent clinical outcome with superior patient care in a transparent manner in a safe environment.

GOAL

Short term goal (MISSION) and long term goal (VISION).

VALUES

Integrity: To deal with all stakeholders – patients, partners, employees, vendors and the community – in a spirit of fairness and integrity

Transparency: To respect the patient's right to know at every touch point by providing information that is clear, concise relevant and easy to understand.

Maximum Care: To re- evaluate every hospital system, Process and procedure to ensure that patients and their loved ones receive maximum care and comfort.

Self – Improvement: To instil a process of learning and self – improvement at every level through continuous training, focused research and peer review.

Patient Dignity: To safeguard the dignity of patients by protecting their individuality and privacy at all times.

KEY STATISTICS

Accommodates over 500 in – patient beds, allows optimal utilization of resources and ensures privacy, dignity, comfort, comfort, convenience and the best healthcare to every patient. However the smooth and seamless movement of people & staff guaranteed.

Critical care unit, in MSH, Kolkata with 74 CCU beds. Special technical features in CCU including ceiling mounted, dual arm pendants which ensure that the space around the patient is not cluttered. Another unique feature is dedicated air supply that keeps the critical care free of any kind of contamination and infection.

Accommodates over 500 In – patient beds, allows optimal utilization of resources and ensures privacy, dignity, comfort, comfort, convenience and the best healthcare to every patient. However the smooth and seamless movement of people & staff guaranteed.

Critical care unit is the largest number of critical care beds in Kolkata, with 32 CCU beds & 10 Neuro ICU,18 CTVS,22 Paediatric beds. Special technical features in CCU including ceiling mounted, dual arm pendants which ensure that the space around the patient is not cluttered. Another unique feature is dedicated air supply that keeps the critical care free of any kind of contamination and infection.

Movements in the hospital is managed by 7 elevators.

DEPARTMENTS IN THE HOSPITAL

The following departments function in the hospital

Clinical and Nursing Services	**Support services**	**Utility Services**	**Administrative services**
Outpatient department	Laboratory Services	Communication	Personnel Management
Indoor patient department	Blood Bank	Laundry and linen service	Financial Management
Accident and Emergency Services	Radio-diagnosis and imaging dept.	Facility management and engineering service	Material Management
ICU	Pharmacy	Dietary services	Medical Social Work
Operation Theatre	CSSD	Transportation	Public Relations
Nursing Services	Medical Records	House-keeping services	
	Physical Medicine and rehabitalation	Fire and security	
	Sanitation and waste management	Emergency maintenance	

CLINICAL SERVICES

OUTPATIENT DEPARTMENT

The OPD Dept. at MSH, Kolkata consists of a Front Office, Help Desk, Visitors card desk, Report Despatch Counter, Admission Room, Pharmacy ,Imaging, Consultant suits, Emergency and Day Care,

Triage, Corporate Desk,etc.

The six centre of excellence a

re as follows:

- Centre for neurosciences
- Centre for cancer
- Centre for physical medicine and rehabilitation
- Centre for cardiac sciences
- Centre for bone and joint
- Centre for children

The specialists included are Anaesthesiology, Critical Care Medicine, accident and emergency, gynaecology and obstetrics, imaging, laboratory medicine and pathology including biochemistry, molecular biology, haematology, histopathology, microbiology, clinical pathology, transfusion medicine and blood bank, genetics, tissue and bone bank, dermatology, endocrinology, gastroenterology, clinical nutrition, internal medicine, nephrology, psychiatry, pulmonary medicine, rheumatology, geriatric medicine, surgery including dentistry, ENT, general surgery, ophthalmology, plastic and reconstructive surgery, urology, surgical oncology, cosmetology.

a) Access to OPD services:
   All patients who visit MSH for the first time for consultation/ other services are issued a card which gives each patient a UHID number. This UHID card is attached to the registration form. With the help of this number, medical records of patients can be assessed. Allotment and control of UHID number is the responsibility of the admission staff desk.

b) OPD Appointment:

Appointments can be fixed over telephone to all from the call centre or personally across the reception counter. Fax and e-mail facilities are also available.

Following services are offered in the OPD

- Medical / Surgical consultations
- Preventive Health check-up packages
- Laboratory investigations
- Imaging services
- Cardiology investigations
- Neurology investigations
- Pulmonary investigations
- Pain management
- Endoscopy
- Bronchoscopy
- Urodynamic study
- Physiotherapy
- ENT
- Ophthalmology
- Dental procedures

HEALTH CHECK UP

- The executive check-up department, a part of OPD services, is a wing of this Super specialty hospital dedicates to the diagnostic and preventive side of patient care. It is a place where healthy patient come for prognosis of disease or to know about the preventive and curative aspect of conditions they may already have.
- This system facilitates the patient to get all the required investigations/consultations done without having to pay for either consultation and/or for each individual item of pathological or imaging investigation. It is the centre point where the potential customers come directly in contact with hospital services. This department can

therefore be a point to draw in patients to become in-patients or for them to come even for follow up OPD consultation.

- The packages in the program have been developed by a team of highly qualified and experienced medical personnel and are designed to offer a complete medical checkup and within their limitations detect any latent health problems. In additions, these packages are offered at special discounted rates that make them truly worthwhile. At the end of the day, candidates leave the hospital with all their reports.
- This department is dependent on various other hospital departments and consultants to ensure a smooth process flow. Therefore co-ordination is a key factor in smoothly running the department. The departments in co-ordination are: pathology, radiology, cardiology, ENT, ophthalmology, dental etc. the visiting consultants are from following department; medicine, surgery and gynecology.

ACCIDENT AND EMERGENCY DEPARTMENT

An Emergency Department (ED) is also known as Accident & Emergency (A & E), Emergency Room (ER), Emergency Ward (EW), or Casualty Department is a medical treatment facility, specializing in acute care of patients who present without prior appointment, either by their own means or by ambulance. Due to the unplanned nature of patient attendance, the department must provide initial treatment for a broad spectrum of illnesses and injuries, some of which may be life threatening and require immediate attention.

Layout

- 11 bedded (6+3 triage + 2 isolation)
- Each bed is separated with curtains to maintain patient privacy and is equipped with the following:

✓ Oxygen supply
✓ Suction Pump
✓ Syringe pump
✓ Cardiac monitor

Minor Operation theatre

- Machines in minor OT are as follows:
  - ✓ Anaesthesia machine
  - ✓ ETCO2 machine
  - ✓ Cautery machine
  - ✓ OT table

- Procedures done in minor OT
  - ✓ Lumbar puncture
  - ✓ Biopsy
  - ✓ Bone marrow aspiration
  - ✓ Suturing

This department has got its own billing and discharge counter.

Staff

HOD

⬇

9Junior Medical Doctor (2/shift)

⬇

1 Head Nurse

⬇

24 Staff nurse (6/shift)

⬇

6 HCA (2/shift)

Equipment:

- Defibrillator-2
- Portable ECG – 2

- Nebulisation machine -2
- Portable sonography machine-1
- Trolleys :
    - ✓ Procedure trolley
    - ✓ Induction trolley
    - ✓ Adult crash cart
    - ✓ Dressing trolley

Ambulance:

There are 2 types of ambulance:

a) Non-cardiac ambulance
b) Cardiac Ambulance

Equipment in the ambulance are as follows:

- Ambulance cot
- Portable Ventilator (cardiac ambulance)
- Portable oxygen unit
- Portable suction unit
- First aid kits
- Traction splint
- Auxiliary Stretcher
- Transfer sheet
- Airways (nasal, oropharyngeal)
- Obstetrical Kit
- Sphygmomanometer
- Stethoscope
- Fire Extinguishers
- Burn Kit
- Others
    - ✓ Sterile and non-sterile gloves

- ✓ Face mask
- ✓ Blankets
- ✓ Towels
- ✓ Bed pan
- ✓ Tongue depressors
- ✓ Cold packs instant chemical type

- ➢ 1 HCA in non-cardiac ambulance
- ➢ 1 HCA + 1 nurse + 1 cardiac consultant in cardiac ambulance

OPERATION THEATRE:

The aim of department of anaesthesiology and OT facility is to provide the highest quality of care to patients undergoing various types of surgeries. The OT facility is positioned as a tertiary care centre of excellence providing complete services for various surgical specialties. The department is staffed with highly experienced and trained anaesthesiologist, surgeons, technicians, nurses and other support staff. Their services have state-of- the-art technology and equipment with highest level environment and quality controls. For each OT there are two scrub nurses and one circulating nurse. Protocols based on approach for quality pre-operative, intra-operative and post-operative and follow up care of the patients. The complex is divided into three zones: sterile, semi sterile and non-sterile zones. Complete services to the following surgical specialties are provided.

- Cardiac surgery
- Neuro surgery
- Onco surgery
- Orthopaedic surgery
- General surgery
- Gynaecology and obstetrics surgery
- Paediatric surgery
- GI surgery
- Uro surgery

- Plastic surgery
- ophthalmic and ENT surgery
- Transplantation surgeries

The OT complex has a pre and post-operative monitoring room for continuous monitoring of patients (recovery rooms).

IN PATIENT DEPARTMENT

The IPD provides the detailed pre-procedure needs their completion and coordination with the diagnostic to arrive at the diagnosis and completion of treatment regimens, comprehensive care in the pre-operative and follow up care, rehabilitative, and nutritional regimenand their scientific amalgamation as per the progressive patient care need. IPD wards are located on floor numbers 4,5 & 6. The IPD rooms are of the following types: single room, twin sharing, deluxe room and suits and each wing has a separate nursing station. The various types of rooms with their features as follows:

- **GENERAL WARDS**

  - Air conditioned
  - Bed head panels with medical gasses
  - Nurse call systems with 2 way communication

- **SINGLE ROOMS**

  - Separate patient zone and attendant zone
  - Nurse call system with two way communication
  - Television Set.
  - Extra bed for patient attendant.

- **Twin Sharing**

Bed head panels with medical gasses

- Television sets
- Couch for each patient relative
- Nurse call system with two way communication

- **Suits and Delux**
  - Exclusive visitor area and guest rooms
  - Nurse call system with two way communication
  - Drawing room
  - Office desk.

The nurse: bed ratio is 1:5 for general ward, 1:2 for single rooms, 1:3 for twin sharing, 1:1 for suits. The various other rooms are clean utility, dirty utility, janitor room, AHU (air handling unit), sluice room, I.T. room, and service elevator.

INTENSIVE CARE UNIT

The CCU cater to patients with most severe and life-threatening illnesses and injuries requiring constant close monitoring and support from specialist equipment and medication to ensure normal bodily functions. There is CCU consisting of SICU & MICU, Paediatric ICU, Neonatal CCU, Transplant CCU and Paediatric Cardiac ICU. The nurse patient ratio for critical patients is 1:1 and for stable patients is 1:2. The CCU co-ordinates with CSSD, Laboratory and the Radiology department. Strict aseptic techniques are used. Pressure zones are created to control infection rate.

The CCU has highly dedicated and trained medical, nursing and allied staff.

Human resource of the ICU

- Intensive care doctors
- ✓ 1 Director
- ✓ 8 Junior consultants (4 hour shift)
- ✓ Clinical registrars (24 hours shift)

- Intensive care nursing staff
- ✓ 1 Director General Manager for ICU

  Nurse in charge (8 hours shift)
- ✓ Team leader (8 hours shift)
- ✓ 2 Senior nurse (6 hours shift)
- ✓ 25 Junior nurse (6 hours shift)

- Allied staff
- ✓ Physiotherapists
- ✓ Dieticians
- ✓ Biomedical Engineers

Shift timings:

For doctors

- ✓ Morning : 8 am - 4 pm (Team Leader)
- ✓ Evening : 2 pm - 8 am
- ✓ Night : 8 pm - 8 am

For nurses, and housekeeping staff

- ✓ Morning : 8 am - 2 pm
- ✓ Evening : 2 pm - 8 pm
- ✓ Night : 8 pm - 8 am

Visiting hours:

Morning: 8:30 am – 9 pm

Evening: 4 pm – 5 pm

- ✓ Only 1 relative at a time is allowed

Records and Registers

- Admission and discharge register
- Handing and Taking over/Team leader sheet
- Assignment book
- Leave book
- Critical care flow sheet
- Narcotic drug register.

Equipment's:

MONITORING EQUIPMENT	**CARDIOVASCULAR THERAPHY**	**RESPIRATORY THERAPY**	**LABORATORY EQUIPMENT**
Bed side and Central Monitors ECG Recorder Pulse Oximeter Spirometer ECG Monitor Temperature Monitors Blood Glucose Meter	Defibrillators Infusion Pumps and Syringes	Ventilators Intubation/ Tracheostomy Trolley Nebulisers	Blood gas Analyser

Miscellaneous Equipment

- Crash Cart
- Dressing trolley
- Procedure trolley

CENTRE FOR REHABILITATION

- The department is located on 1st floor of hospital.\
- It has got its own billing desk.

- **Staff of the department consist of**

HOD

↓

30 physiotherapists

- **Following therapy services are available :**

1. Neurological Rehabilitation
2. Musculoskeletal rehabilitation
3. Cardiac Rehabilitation services
4. Pulmonary Rehabilitation
5. Paediatric Rehabilitation
6. Cancer Rehabilitation
7. Pain management
8. Women's health
9. Geriatric Rehabilitation

The therapy services offered in the department :

1) Physical therapy
2) Occupational therapy
3) Electrotherapy
4) Speech and language pathology
5) Exercise physiology
6) Psychology
7) Rehabilitation nursing
8) Orthosis and prosthesis

CLINICAL SUPPORT SERVICES

MEDICAL RECORD DEPARTMENT

- The main functions of the department are :

1) Storing file for future reference.
2) Research.

- Staff:

Medical Director

↓

Deputy Medical Superintendent

↓

Asst. Manager - MRD

↓

Executive – MRD

↓

- Close audit is done of all files before keeping them storage.
- 20% of total discharge in previous month.

- The arrangement of files is done in following ways-

  PRN wise

  Normal Discharge

  DAMA.

  Month wise

  Expired

  MLC

  Both comes Under Lock and key.

  Daily

  H1N1

  Tubercu.losis

  Dengue, Malaria , Chikunguniya cases

  Weekly

  Vector Borne diseases

  Dangerous diseases

  Notifiable diseases

  Death Report form

  Birth Report form.

  Monthly

  PNDT , MTP, Delivery Detail, Letter mentioning total number of deaths and cause of death.

  Complete Hospital Statistics.

  DAMA list along with its causes.

- All files are stored in the department for the following time period:
- MLC and Expired files life long
- Normal discharge and DAMA 10 yrs.

- ICD-10 coding is done for storing files:

- This department has to notify Kolkata Municipal Corporation(KMC) about following things on regular basis:
  - ✓ Birth and death report (once in a week).
  - ✓ Notifiable disease which includes cholera, dengue, plague, yellow fever, TB, polio, meningococcal meningitis, leptospirosis, viral encephalitis (once in a week).
  - ✓ Maternal mortality (once in a month)
  - ✓ MTP &PNDT (once in a month)

LABORATORY

The salient features of the department are as follows-

- NABL
- Central processing laboratory is spread over 4,000sq. Ft. which follows strict internal quality compliance for all analyzer.
- Excellent laboratory management system which handles both pre-analytical and post-analytical aspects.
- Dedicated courier and logistic services
- 14 hrs. sample collection facility for OP dept and 24 hrs for IP dept.
- Stringent quality control monitoring which satisfy the quality assurance elements and readily available documented evidence of quality assurance and quality proficiency schemes.
- Constant improvisation and technology innovation using over 150 state of the art equipment.
- Quality control and quality assurance executive that monitors pre-analytical and post-analytical processing of the samples.
- Customized management report (MIS-management information system)

  .

BLOOD BANK

Transfusion medicine is a multi-disciplinaryarea concerned with the appropriate use of blood and blood components in the treatment of human disease. The mission of MSH is to make available appropriate adequate quantity and high quality of safe blood and blood component to “anyone, anytime, anywhere” in community. MSH adheres to quality norms and focus on the donor satisfaction standards and technique and quality control are precisely and meticulously maintained as per norms given in the Drugs and Cosmetics Acts, by the Regulatory Authority, Director Drug Controller (India), Ministry of Health and Family Welfare, Govt. of India, and also internationally recommended methods. The department runs round the clock and blood and its products are supplied as and when requested. Blood donation is accepted from voluntary blood donors and relatives and friends of the patient. Autologous blood donation (blood donation for one’s own use) is also accepted. The blood donors are informed and counselled about the infections transmitted by transfusion of blood components 100% of collected blood is processed into component like Packed Red Cells Concentrate, Platelet Concentrate, Fresh Frozen Plasma (FFP) and Cryoprecipitate. The use of the components is better and cost effective. The blood bank at MSH is equipped with state of art equipment, which enables use of advanced techniques for processing/screening of blood and its components. All the mandatory screening for the transfusion transmissible disease like HIV, HBV, and HCV is done with the more sensitive and specific ECI methods. All units are screened for VDRL and malaria parasite. Red cells in an additive solution (RCA) like, SAGM is a product which is used in variety of indication like surgeries, anemia, trauma.

IMAGING

The imaging department consists of radiology services. The investigations performed in these departments include:

- CT Scan
- MRI
- X-Ray
- Ultrasonography
- Mammography

Register maintained for appointment scheduling for each of these investigations. The appointments are given by GRE. There are 4 X-ray portable machines, 3 ultrasonography machines, 1 mammography machine, 1 CT Scan machine, 123 slices, and 1 MRI machine of which one is 1.5 Tesla located in the radiology department and the other is 1.5 Tesla IMRIS (intraoperative magnetic resonance imaging suit) is a movable machine attached to the ceiling that is located in the OT. It is basically used for MRI scanning during a surgery. They are working on its complete utilization.

CENTRAL STERILE SUPPLY DEPARTMENT

The central sterile supply department (CSSD) plays a key role in providing the items required to deliver quality patient care. Centralizing the reprocessing of reusable devices helps ensure uniform standards of practice, while also providing for improved workflow (cleaning, sterilising, packing, distributing). This also facilitates the training and education of skilled technicians who must be aware about the standards, complexities, challenges, risks and technicians associated with the CSSD function. Every CSSD task must be performed for the welfare and safety of patients, co-workers and the community.

CSSD is the heart of hospital infection control and the most important unit of clinical support services. CSSD's main functions are cleaning and drying, assembly, packing, sterilizing, storing and distributing instruments (both multi use and single use devices), as per well delineated protocols and standardized procedures.

INFRASTRUCTURE

It is divided into 3 zones

1. Decontamination area
2. Assembly area
3. Sterile storage area
4. Distribution area.

STAFF

1 manager / department head

1 executive

1 senior technical officer

4 technical officers

6 junior technical officers

10 trainees

16 health care attendants

MAJOR TECHNOLOGIES

Ultrasonic cleaner

Washer disinfectant/dryer

Steam pervac sterilizers

Plasma sterilizer

ETO(ethylene oxide gas sterilizer)

Dry heat sterilizer.

RECORD MAINTAINED:

- Manual issue and receiving in OT - 24 x 7
- Manual issue and receiving all departments
  Morning: 9 am – 11 am.
  Evening: 4 pm – 6 pm.
- Sterilization records

PHARMACY

Situated on ground floor indents to OP SCOPE OF INVENTORY MANAGEMENT:

From 3rd Floor to all wards.

- INDENTATION
- RECEIVING
- STORING
- DISTRIBUTION

The staff consists of:

- 2 Pharmacists
- 1 executive
- 6 Pharmacy aids

HOUSE KEEPING:

The objective of housekeeping is exceptional standards of cleanliness, sanitation and hygiene of the entire hospital. Housekeeping services are outsourced to Super Shine System Laundry ltd.

The staffs include:

- Housekeeping Manager
- Housekeeping Executives
- Supervisors
- House Boys & House Girls

Functions of housekeeping department are:

- General facility cleaning
  - ✓ Routine cleaning of patient's rooms
  - ✓ Patient's common areas
  - ✓ Washrooms
  - ✓ OT
  - ✓ Laboratory
  - ✓ Consultant's office
  - ✓ Glass windows and doors
  - ✓ Ceiling etc.
- Handling of biomedical waste.

- Pest control-It includes spraying every 24 hours for mosquitoes, cockroaches, flies, rats, lizards and termites.
- Garbage disposal- The housekeeping staff collects garbage collected in specified color Coded bags from all garbage bins existing inside the hospital premises and disposes the garbage in the designated area within the hospital, which is the biomedical waste room. The general waste is sold to the junk dealer and healthcare waste is handed over to government approved vendor
- Horticulture- It is responsible for maintenance of in house plants, flower arrangement during hospital functions.

The performance indicators are B.M.W. color code compliance, B.M.W. collection, pest control efficiency and sanitization of the hospital premises.

CLINICAL ADMINISTRATIVE SERVICES

STORES

Material stores functions in order to supply the right material in right quintiles at the right time at the right price. The IP departments put up requests for the required materials by uploading indents in the HIS. The store manager raises a purchase order to be sent at the central procurement stores. The supplies received are inspected on the basis of quantity and expiry in the incoming material inspection area. The items are stored as per the storage norms. Departmental issues are made for non – medical consumables as per requirement. Stock is reviewed periodically for non-moving items and short expiry items. Stock audits are carried out twice/year. Any variance is reported to the higher management. For inventory control, ABC and VED analysis is carried out. FEFO (first expiry first out) is followed. The staff includes:

- Assistant Manager
- Executive store
- Assistants
- 2 Health care assistants

The key performance indicators are no stock outs, zero errors in maintenance of accounts, zero error in billing processing, maintain minimum inventory maximum efficiency, maintaining stores as per the NABH standards, submission of bills accounts within 4 working days, expired items on the shelves should be zero, minimize emergency purchase, TAT suture and lab kits (19 days), instruments (8 weeks) and other items (2 days)

BIOMEDICAL ENGINEERING DEPARTMENT

The main objective of the department is to facilitate the usage of latest technologies in the diagnosis, treatment and care of patients. It is also responsible for proper usage and quality performance of these costly equipment and tools inside the hospital

The department maintains an updated asset register of the hospital equipment, conduct daily rounds to ensure that the equipment is functioning smoothly, responsible for facilitation and identification of equipment requirements, planning technical comparison, ordering installation and deployment units and new projects, conduct regular preventive maintenance servicing for all the equipment at regular intervals, facilitating equipment replacements and condemnation, whenever required, conducting regular training programs for hospital staff, on usage of hospital equipments. The staff consists of HOD, 1 Deputy Manager, 1 Senior Biomedical engineer, 1 Junior Biomedical engineer and 4 medical gas technicians.

FOOD AND BEVERAGES

The objectives of food and beverages department are to deliver healthy and nutritious meals coupled with a wonderful experience of hospitality services to all IP, OP and staff. The cafeteria is outsourced to Rozzana.. The main functions of the department are as follows:

- Inpatient meal management
- Purchase of fruits, vegetables, milk, pulses, whole grain and other dietary consumables
- FIFO is followed

The purchased items are unloaded in the receiving area, where they are inspected and then washed with water and anti-bacterial liquid before bringing it in the kitchen premises. It is followed by storage of perishable and non-perishable items in refrigerator and dry storage area respectively. Diet planning and counselling is done by the dietician according to the patient's condition, food allergy and taste and general preference. The diet summary is handed over to the supervisor in the form of meal sheet cum ticket. According to this, the food is prepared and laid out on trays. The meals are served in the patients' rooms and clearance is carried out after 2 hours. Food/meal/diet for a patient admitted in the hospital is decided by the doctor admitting the patient depending on his/her medical condition. On doctor's recommendations, the dieticians plan the meal that is best for the patient's speedy recovery. The staff includes:

- Regional head of support function
- F&B manager cum chef
- Assistant manager F&B

- Executives
- Senior Dietician
- Other F&B staff

SECURITY

Services rendered by security department are surveillance and patrolling of the infrastructure and material, access control (in restricted areas like IT, MRD, Mortuary, Pharmacy, Electric control panels), control of movement of traffic in premises, reception and conduct of visitors and attendants, assistance in fire control and emergency plan, vigilance and intelligence, liaison with sensitive areas, carry out verification, hold records, issue passes, and generate reports on security matters. It is equipped with modern equipment like CCTV's metal and explosive detectors, alarms, security, lighting and walkie-talkies,etc. The staff members are:

- HOD
- Senior officer
- Security supervisor
- Sr. security assistant
- Security guards

The performance indicators are TAT, theft percent, code related incidents.

ADMINISTRATIVE SERVICES

ADMISSION AND BILLING:

The admission and billing staff includes 1 H.O.D. and & 8 GRES and 1incharge The services offered by the department are registration of a new patient, bed booking, bed transfer, admission, councelling, billing.

Front office:

The front office is the first point of contact at MSH. It is managed by HOD – Incharge executive, GRES.

Functions:

- Respond and answer telephone calls from patients and clients .
- Registration of outpatients, in patients and executive health checkup patients for various investigations (registration counter).
- Direct the patients and their relatives to the outpatient services and the inpatient wards (helpdesk and welcome desk).
- Report receiving and handling over to the patient (dispatch counter).

Third Party Administrator Desk:

T.P.A. staff includes one Medical Officer and 4 Customer care officer.

Functions:

- Counselling.
- Pre-Authorization – request send
- Query handling & resolving
- Follow up at Pre - Authorization
- Final approval.

INFORMATION TECHNOLOGY DEPARTMENT:

It is implied that there is central database for hospital. Services rendered by the IT department are as follows:

- IT support to users for hardware and software as per SLA (service level agreement).
- Installation of new IT equipment and data entered into medical devices / equipment.
- Helping biomedical department in interfacing the medical equipment with HIS system for data handshaking.
- Installation of appointment scheduling programs.

- Utilization of resources provided other departments.

The IT staffs include:

- Chief Information Officer
- Manager IT
- Executive IT engineers.

The performance indicators are calls resolutions within a time limit, strict data security, zero percent variance, in hardware and software variance, minimal occupational hazard and proper e-waste disposal.

ENGINEERING DAPARTMENT:

Engineering and maintenance department is manned for 24 hours for keeping round the clock vigil on proper functioning of plant engineering equipment coming under the purview of department. This covers maintenance of major supplies to the hospital such as power, water, which form the life line to the hospital’s activities. The responsibilities of the department include operation and maintenance of plant equipment installed and various other areas to support the normal functioning of the hospital and repair work of equipment related to the department’s responsibility. The policy of the department is to serve well with safety and it time, continuous improvement, cost saving, optimum utilization of manpower and equipment, optimum utilization of inventory and teamwork.

The major engineering services are:

- Electrical power supply- normal and emergency
- Air conditioning, ventilation and refrigeration.
- Steam and hot water supply.
- Water stations and cold water supplies- filtration system.
- Medical gases supplies
- Fire detection alarms and fighting system.
- Internal and external plumbing system.
- Civil works-Masonry, carpentry, glasswork, upholstery, painting, etc.
- PNG and LPG supply.

- Safety assessment of facilities.

MARKETING AND SALES

Marketing and sales department is concerned with business development, branding, promotions and advertisement of MSH healthcare services. Marketing deals with organizing health check-up camps and awareness talks for corporate or PSU's and RWA, designing all the brochures and signage, conducting CME's/seminars. The sales department deals with PSU's and corporate tie-ups, pitching referral sales from nearby general practitioners and nursing homes, liaison with TPAs and managing the international patients (medical tourism).

FINANCE

The scope of services includes the entire hospital cash handling and cash disbursement in the form of salaries and vendor payment for stores, pharmacy and biomedical department. All the cash collected is deposited on daily basis n the bank. The TPA payment is collected through lump sum amount in the form of cheque at the end of the month. The staffs include :

- HOD
- Asst. Manager
- Senior executives
- Junior executives
- 2 cashiers

PURCHASING DEPARTMENT

Purchasing department is responsible for the procurement of function of the hospital the primary functions of the purchasing department are to:

- Procure the rights and services from the right suppliers at the right time for the right place.
- Receive, warehouse, issue $ distribute stocks to hospital departments in accordance with MSH procedure.
- Hospital users and clinicians actively participate in product evaluation processes. The purchasing department is actively involved in cost analysis and supplier performance management. It is through all of these activities that the department manages the chain process.

HUMAN RESOURCE DEPARTMENT

The functions of HR department at MS hospital are:

- Hiring
- Physician and nurse recruitment
- Employee orientation
- Personal management
- Benefits and compensation management
- Counselling
- Claims handling
- Training and performance monitoring
- Professional development programs
- State and federal regulations education
- Work place safety and sanitation
- Administration – employee meetings
- Staff morale and retention

Recruitment /selection:

- Identifying the key requirements areas(KRA)
- Drafting job description
- Recruitment through job portals and internal references

- Selection
- Medical examination of the candidate
- Offering letter to the selected ones

QUALITY CONTROL DEPARTMENT

The Functions of the department are:

- To analyze patient feedback forms.
- To analyze different parameters from different departments and compare them.
- Infection control of the hospital.
- Induction and training of hospital staff.
- Accreditations (1. NABH, 2. NABL).

This department also maintains few quality indicators for hospital:

- Medication Errors
- Return of patient within 72hours.
- Return of patient to OT within 48hours.
- Return of patient to ICU within 48hours.
- Number of Needle sticks Injuries.
- Number of blood transfusion reaction.
- Number of Adverse Drug reaction.

Staff:

This department consists of one quality manager who reports directly to the director of hospital.

INTRODUCTION TO INTENSIVE CARE UNIT

ICU is highly specified and sophisticated area of a hospital which is specifically designed, staffed, located, furnished and equipped, dedicated to management of critically sick patient, injuries or complications. It is a department with dedicated medical, nursing and allied staff. It operates with defined policies; protocols and procedures should have its own quality control, education, training and research programmes. It is emerging as a separate specialty and can no longer be regarded purely as part of an anaesthesia, Medicine, surgery or any other speciality.[1]

An intensive care unit (ICU), also known as a critical care unit (CCU), intensive therapy unit or intensive treatment unit (ITU).

HISTORY OF ICU

In 1854, during the Crimean war, Florence Nightingale created a dedicated care area for soldiers wounded in the battle. She recommended establishing separate post surgical areas in hospitals. It was reported that Nightingale reduced mortality from 40% to 2% on the battlefield. Although this was not the case, her experiences during the war formed the foundation for her later discovery of the importance of sanitary conditions in hospitals, a critical component of intensive care. In 1950, concept of "Advanced Support of Life," was introduced by the anesthesiologist Peter Safar, keeping the patients ventilated and sedated in an intensive care environment. ICU readmission is defined as admission of a patient to the ICU within 48 hours of shift out from the previous ICU during the same hospitalisation period.

PROC**ESS FLOW**

Patient comes from

OT/ Wards/ Cathlab

A & E

Bed Preparation

Transfer-in

Admission

Patient handed over to the ICU team

Registrar takes the patient history and inpatient case records assessment completed by nurse in 60 minutes.

INITIATING ICU TREATMENT	• Ventilated patient treated as per ICU protocols • Patient connected to monitors and organising requested lines and tubes
BED SIDE MONITORING AS PER PROTOCOLS	• Hemodynamic parameters • Respiratory parameters • Temperature • Urine Output • Drainage (from tubes) • Blood sugar
TRASNFER OUT/ DISCHARGE/ DEATH/ DAMA	• Based on discharge criteria and ICU protocols.

TITLE : PROJECT ON TURN AROUND TIME OF

LINENS AND LAUNDRY AND TURN AROUND TIME IN BED MAKING.

AIMS OF THE PROJECT:

- To reduce time around time .
- To maintain stocks of linen.
- To optimum uses of linen.
- For proper education and handling of linen .
- To maintain Laundary processing time.
- To reduce oparetional costTo minimise the loss of linen.
- To reduce infection rate.
- To maintain satisfaction of patients and physicians.
- To maintain the Quality of linen.

Research Questions

1) What is the level of adherence to the standard of washing/cleaning criteria?
2) What are the reasons for delay in each step / process of cleaning the linens?
3) What is the average rate / cost of washing / cleaning each linen?
4) What is the average time taken in completeing one cycle of linens?
5) Are any cases of unwashed linens under-reported?

Specific Objectives

1) To evaluate adherence level of the standard of cleaning linens as per defined MSH Standards.
2) To study process flow and identify reasons for delay for the fresh linens to be shifted to the Wards from laundry.
3) To identify the time gap between each process of / steps taken in laundry.
4) To access it's accurate recording of the cases of untouched linens.
5) To study the outcomes associated with the risk of any major break down of any machines in the laundry.

Research Methodology

1) Area of study : Linen and Laundry
2) Study Period : 7th April to 1st June 2015.
3) Study Type : Descriptive study

Findings

1) Once a patient is discharged, after that when the House Keeping girls make the bed for the new patient as well as collects the dirty linens and takes them to the laundry, that takes a lot of time.
2) The above can be avoided or may be completed in time provided the house keeping girls work in a team of two.For example one of them may remove the bed covers, pillow covers, patient's uniform, blanket covers, etc while the other may lay the fresh linens on the bed.

3) Sorting of linens should be done in the wards / floors itself, because if the sorting is done in the laundry then that may delay the process further as there is a chance of the linens getting mixed up with the others which are already there in the laundry,therefore further delay in the work flow.

4) The Sluice & Soaking area is ocasionally remained unattended.This furthers delays the cleaning part of the infected linens in the laundry.

5) A damage / break down in the boiler delays the process most of the time as the time for drying the linens after washing is wasted / not utilised properly.

Literature Review :

In order to understand the complete linen management system and to identify the various problems of the system it was felt that the basic knowledge of the step by step procedures of the system is necessary.As currently no such probing study is available on this system, therefore help wsas taken from the books, and project works done by the students in this field.

The word “linen” means cloth made of lint or flax or of cotton. However, in a hospital the term is used to cover all textiles which includes matteresses, pillows, blankets, sheets, towels, etc. Due to technological development, hospital linen is now made of a variety of fibers which may not be natural cotton, but cotton is the most frequently used in the hospital as it is cheaper and more comfortable.

Hospital linen is divided into the following categories:-

A) Patient Linen:-which are related with patient care-

1) Patient care linen
   a) bed linen
   b) body linen
   c) Operation Theatre Linen
2) Staff linen

3) Department / service linen, e.g. curtains, tablecover, trollycover, etc.

B) Laundry Linen- the linen in the laundry is classified depending on the washing process it has to undergo

1) Contaminated / infected linen

2) Soiled linen

3) Radioactive linen

In large hospitals normally there are two systrems of linen circulation:-

a) De-centralised system,which makes definite assignments of linen supply to various units and holds the units / departments responsible for them.

b) Centralised system, which established a central supply in charge of the laundry manager.Each system will work more satisfactorily in different types of hospitals.

There are mainly four types of systems for the supply and collection of linen:-

a) Exchange trolley system

b) Topping up system

c) Requisitioning system

d) Daily quota system

REF : Dr. R.K.Sharma, Laundry and Linen Services, Module of Essentials O f Hospitals, MBA in Hospital and Health Management,IIHMR ,Jaipur)

One of the traditional and chronic problems facing hospitals is effective linen control.Without proper amount of linen at right time, patient care, employee morale, and economic hospital operations are all negatively affected.There fore, the hospitals are always keen to know whether the existing stock of linen is sufficient to meet the requirements of the hospital or not.

(Ref: Virat Neogi. Project work on Turn Around Time on Optimization of linen and launry in hospitals, summer placement report of Medica Superspeciality Hospital,kolkata)

One of the tasks in dealing with linen control is the establishment of regular operating levels of par levels.A par level is a level of linen inventory required for a specific period of time in a certain area.In a nursing unit, par levels are usually planned on either a daily or on weekly basis.Linen control is mostly adequately done through controlling par levels on the nursing unit.

Another factor in linen control, especially in guarding against pilferage, is that the hospital linen should be properly marked.Linen marking (i.e. a hospital name or symbol woven or stampted on the items) is a very effective means of reducing the temptation to people to take linens home with them.In the case of linen and sheets, decals can be affixed to the items.It is common for hospitals to use different coloured linen throughout the hospital.For example, the operating room may use blue, maternity may use green, and medical surgical nursing units may use white.

(REF: Snook & Donald, Facility Support Services, Hospitals: What They Are And How They Work).

Data Collection

The study carried out consisted of examining and ensuring the Turn Around Time in optimization of resouces in the linen and laundry dept. to assess the criteria for the Turn Around Time in laundry and compared with the standard NABH for laundry criteria check list.

Observational study and interview with various staff was carried out to identify the reasons of delay in the total time taken to complete one cycle of the linens and ultimately ready to use.

Recommendations

1) Although MSH, Kolkata has the best quality practises as compared to the standard guidelines, it should focus on enhancing the efficiency and productivity in the Linen and Laundry dept.
2) One extra boiler as standby should be installed to avoid delay in the process / work flow, especially in the drying process.
3) A certain number of linens being dried in the terrace due to unavailability of boiler , at a particular time period.
4) Provide some kind of incentives to House Keeping girls, so that both, efficiency and productivity of the work can be raised, hence reducing time wastage / delay in work flow.
5) Quality Indicators for better patient satisfaction.

TAT IN BED MAKING

Research Questions

1) What is the level of adherence to the standard of bed making before admission of the next patient?
2) What are the reasons for delay in each step / process of bed making?
3) What is the average time taken in completeing one cycle of bed making?
4) Are any cases of unmade bed under-reported?

Specific Objectives

1) To evaluate adherence level of the standard of bed making as per defined MSH Standards.

2) To study process flow and identify reasons for delay in making bed?

3) To identify the time gap between each process / steps of making bed?

4) To access it's accurate recording of the cases of untouched / unmade or those beds which are made after a long time?

5) To study the outcomes associated with the risk of any hospital acquired infection from the Bed/ linens at the time of making bed if any.

Findings

1) Once a patient is discharged, after that when the House Keeping girls make the bed for the new patient ,that takes a little more time then reqired.

2) The above can be avoided or may be completed in time provided the house keeping girls work in a team of two.For example one of them may remove the bed covers, pillow covers, patient's uniform, blanket covers, etc while the other may lay the fresh linens on the bed.

3) When a particular patient's discharge is declared for a particular bed then it would be worth while if the cabinets are checked once whether fresh linens are in stock before the admission of the next patient.

4) Damaged / torn matresses, bed covers, pillow covers, blanket covers, patient dress, towel should be changed immediately.

Research Methodology

1) Area of study : TAT of Bed Making.

2) Study Period : 7th April to 1st June 2015.

3) Study Type : Descriptive study.

Data Collection

The study carried out consisted of examining and ensuring the Turn Around Time in optimization of resouces in bed making to assess the criteria for the Turn Around Time in bed making and compared with the standard NABH for bed making criteria check list.

Observational study and interview with various staff was carried out to identify the reasons of delay in the total time taken to complete one cycle of bed making and ultimately ready to use.

Recommendations

1) Although MSH, Kolkata has the best quality practises as compared to the standard guidelines, it should focus on enhancing the efficiency and productivity in bed making in the wards.

2) Timely making of bed to avoid delay in the process / work flow and better patient satisfaction

3) Provide some kind of incentives to House Keeping girls, so that both, efficiency and productivity of the work can be raised, hence reducing time wastage / delay in work flow.

4) Quality Indicators for better patient satisfaction.

THANK YOU