

**DISSERTATION**

**in**



**New Delhi**

**(3<sup>rd</sup> March to 17 May 2015)**

**Administrative Report on Operations Department of Dr. BL Kapoor Super  
specialty hospital New Delhi**

**BY:**

**Dr.ShubhamTyagi**

**(PG/13/077)**

**POST-GRADUATE DIPLOMA IN HOSPITAL & HEALTH MANAGEMENT**

**NEW DELHI**

**2013-15**



**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH**

**NEW DELHI**

## **Acknowledgement**

Any attempt at any level cannot be satisfactorily completed without the support and guidance of learned people. I owe a great debt to all the professionals at Dr. BL Kapoor hospital New Delhi for sharing generously their knowledge and time, which inspired me to do our best during my summer training.

I would like to express my immense gratitude to **Dr. Vishal Sharma (Deputy Medical Superintendent)** Dr. BL Kapoor hospital, **Ms. Aditi Makkar patient care Co-ordinator (PCC)**, **Mr. Viney Kumar Asst. Manger Medical Admin.**

Dr. BL Kapoor hospital New Delhi for providing support and guidance for my learning in the hospital and for directing my thoughts and objectives towards the attitude that drives to achieve and other aspects that one as novice needs to be acquainted with. It has been a privilege to work under their dynamic supervision at the hospital.

I would like to thank **Mr. Bhoovan Dev Singh Pawar HR Assistant General Manager** and **Ms Rupinder Kaur HR Ex. Head-Learning & Development** Dr. BL Kapoor hospital New Delhi to gave me the opportunity to work as Management Trainee in the hospital.

I am glad to acknowledge **Dr. L.P.Singh, Director, Prof. (Dr.) Ashok Agarwal Dean, Academic and Students' Affairs, and Dr.(Mr) A.K. Khokhar (Mentor), IIHMR** for incorporating right attitude into me towards learning and for helping and supporting whenever required. I am grateful to them for giving me an opportunity to learn administrative tricks and styles, so that I come to know how a hospital caters their patients successfully and how a hospital gives quality treatment to patients.

**Dr. Shubham Tyagi**

PGDHMM

IIHMR Delhi



Ref: - BLK/HR/2015/MAY/183

Dated: 23.05.2015

**TO WHOMSOEVER IT MAY CONCERN**

**Sub: - Dissertation Completion Letter**

This is to certify that **Dr. Shubham Tyagi** has undertaken dissertation at BLK Super Speciality Hospital from **3<sup>rd</sup> March, 2015 to 23<sup>rd</sup> May, 2015** in the department of **Medical Admin.**

During his tenure, his conduct was found to be excellent.

We wish him all the best for his future.

Yours Sincerely,  
For BLK Hospital

**Puneet Gupta**  
Manager-Training & Development



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Annex B (Cover page)

Internship Training

at

Name of the Organization

BLK APOOR SUPER SPECIALITY HOSPITAL

Study/Project Title

HOSPITAL - ACQUIRED INFECTION.

by

Name Dr Shubham Tyagi

Enroll No. PG 13/077

Under the guidance of

Dr Vishal Sharma .

Post Graduate Diploma in Hospital and Health Management

2013-15



International Institute of Health Management Research  
New Delhi

Dissertation Writing



Annex C (Title Page)

Internship Training

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## (Completion of Dissertation from respective organization)

The certificate is awarded to

Name Dr Shubham Tyagi

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

Title Medical Admin.

and has successfully completed her Project on

HOSPITAL- ACQUIRED INFECTION  
Title of the Project

Date 17 MAY 2015

Organisation BLK Super speciality Hospital.

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

We wish him/her all the best for future endeavors

Training & Development

Zonal Head-Human Resources

Dissertation Writing

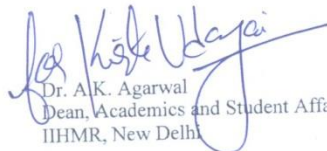
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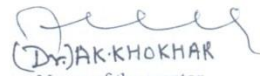
This is to certify that Dr. Shubham student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at BLK HOSPITAL from 3 March to 17 May 2015

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

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

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

  
Name of the mentor  
IIHMR, New Delhi

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### Certificate Of Approval

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

Dissertation Examination Committee for evaluation of dissertation.

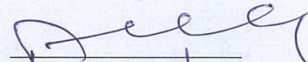
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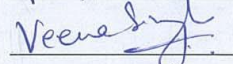
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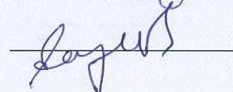
Dr. VEENA SINGH

Dr. Sapal Kumar

Signature








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### Certificate from Dissertation Advisory Committee

This is to certify that Dr. SHUBHAM TYAGI, a graduate student of the Post- Graduate Diploma in Health and Hospital Management has worked under our guidance and supervision. He/ She is submitting this dissertation titled " HOSPITAL ACQUIRED INFECTION " at "BLK SUPER SPECIALITY HOSPITAL" in partial fulfillment of the requirements for the award of the Post- Graduate Diploma in Health and Hospital Management.

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

  
(DR)AKKHOKHAR  
Institute Mentor Name,  
Designation,  
PROFESSOR  
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DR VISHAL SHARMA  
Organization Mentor Name  
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Dissertation Writing

# FEEDBACK FORM

Author's Name: Dr Shubham Tyagi

Receiving Organization: BLK SUPER SPECIALITY HOSPITAL

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,  
NEW DELHI

Area of Research: MEDICAL RESEARCH (OPERATIONS)

## CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled ..... HOSPITAL ACQUIRED .....  
INFECTION .....

..... and submitted by (Name) Dr Shubham Tyagi .....

..... Enrollment No. PG131077 .....

under the supervision of DMS. Dr. Vishakh Sharma, Dr AKKHOXAR (Mentor) .....

for award of Postgraduate Diploma in Hospital and Health Management of the Institute  
carried out during the period from 3 March ..... to 17 MAY 2015 .....

embodies my original work and has not formed the basis for the award of any  
degree, diploma associate ship, fellowship, titles in this or any other Institute or  
other similar institution of higher learning.

Shubham Tyagi  
Signature

Signature of the Officer in Charge / Designated Mentor (Dissertation)

Dissertation Writing



## FEEDBACK FORM

Name of the Student: Dr Shubham Tyagi

Dissertation Organisation: BLK SUPER SPECIALITY HOSPITAL

Area of Dissertation: MEDICAL ADMIN (OPERATIONS)

Attendance: 100 %.

Objectives achieved: . Obdient  
 . Sincere  
 . Great Performing Abilities.

Deliverables: learnt & observed the major operations in the IPD wards including the quality parameter followed in Patient care. Assisted the floor managers, DMS, in their routine tasks. As per obj achieved.

Strengths: . Willingness to learn

Suggestions for Improvement: No Comments.

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

Dr. VISHAL SHARMA  
 Dy. Medical Superintendent  
 Dr. B.L. Kapur Memorial Hospital  
 Pusa Road, New Delhi-110005

Date: 17/may/2015  
 Place: New Delhi

Dissertation Writing



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**Abbreviations**

GDA	GENERAL DUTY ASSISTANT
DMS	DEPUTY MEDICAL SUPERINTENDENT
PCC	PATIENT CARE COORDINATOR
IPD	IN- PATIENT DEPARTMENT
OPD	OUT PATIENT DEPARTMENT
NS	NURSING SUPERINTENDENT
MRD	MEDICAL RECORD DEPARTMENT
ER	EMERGENCY
MLC	MEDICAL LEGAL CASE
DUCU	DIRTY UNIT CLEAN UNIT
ANS	ASSISTANT NURSING SUPERINTENDENT



## **Section 1**

### **Introduction**

As an integral part of the PGDHHM course, the summer training helps us to understand the overall functioning of the hospitals from a managerial point of view. Keeping this factor in view, I tried to visit hospital departments like IPD in Dr BL Kapoor Hospital New Delhi with a special focus on understanding the various procedures. I visited different departments and worked as a staff over there.

The **Aim** of the Dissertation training is:

“To study the administrative and managerial functioning of Dr BL Kapoor Super Specialty Hospital New Delhi with special reference to the different areas / departments of the Hospital”.

## **Section 2**

The **Objectives** of Dissertation training are:

- To learn the daily operational management of the Organization and its various departments / areas.
- To identify issues / problems associated with some specific departments / areas.
- To undertake the special tasks assigned to me.
- To take feedback from the patient on daily basis and to solve the problem if there is any negative point.

### **Section 3**

## **ORGANIZATION PROFILE**

### **BACKGROUND**

Dr. B.L.Kapur, an eminent Obstetrician and Gynaecologist, set up a 200 bed hospital in Delhi. The hospital was inaugurated by the Prime Minister, Pt. Jawahar Lal Nehru on 2<sup>nd</sup> January, 1959.

By 1984, it had become Delhi's premier multispeciality institute offering General Surgery, Ophthalmology, ENT, Dentistry, Pulmonology, Intensive Care and Orthopaedics, apart from mother and child care.

Attainment of NABH & NABL accreditation in the very first year of operations is testimony to the hospital's commitment for patient safety and quality.

### **JOURNEY SO FAR**

The hospital has gone from strength to strength over the last few years. Today, BLK offers one of the most comprehensive bouquets of services for tertiary and quaternary care, at par with country's most renowned institutes like AIIMS and Tata Memorial in Mumbai. BLK has India's largest Bone Marrow Transplant centre which is amongst the biggest in Asia as well. BLK

Cancer centre is amongst the regions' most comprehensive cancer centres of its kind, with over 100 beds dedicated for oncology services.

## VISION & MISSION

Vision – To create a patient-centric, tertiary healthcare organization focused on non- intrusive quality care utilizing leading edge technology with a human touch.

### Mission

- a) Achieve Professional Excellence in delivering Quality care.
- b) Ensure care with Integrity and Ethics.
- c) Push frontiers of care through Research and Education.
- d) Adhere to National and Global Standards in Healthcare.
- e) Provide Quality healthcare to all Sections of Society.

## INFRASTRUCTURE & FACILITY

BLK is one of the biggest stand alone private hospital in the NCR with a capacity of 700 beds including 125 critical care beds. The OPD services are spread on two floors with 57 consultation rooms. All ambulatory services have been designed with the intent to create dedicated areas for all specialities. Therefore, the infrastructure speaks about BLK's commitment for „A PASSION FOR HEALING“.

- The hospital has 17 state of the art well equipped modular OTs with three stage air filtration and gas scavenging system to ensure patient safety. All the OTs are fitted with best in class pendants, operating lights, anaesthesia work stations and advanced information management system.
- BLK has one of the biggest critical care units in the region with 125 beds in different ICUs. All critical care beds are in the close vicinity of the OTs for easy accessibility and continuity of care.
- The hospital has specialized Birthing suits with telemetric foetal monitors to follow the progression of labour and also the facility for the family to stay with the patient during the labour.



- BLK's IVF centre is one of its kind in India to have a modular culture lab and a dedicated OT to provide highly personalized and cost effective services to those who need the IVF services.
- The hospital has the largest Bone marrow transplant unit in the country and amongst the largest in Asia.
- BLK Super-speciality hospital is both NABH and NABL accredited, certifying the quality of standard of care and the processes.

## Hospital hours of Operation

DEPARTMENT	BUSINESS/OPERATION HOURS
Marketing	Monday - Saturday: 9am to 6pm
Emergency Room	24 hours
Customer Care	24 hours
Pharmacy	24 hours
Radiology	8am to 8pm hours
Laboratory	24 hours
Physiotherapy	Monday - Saturday: 8am to 8pm Sunday: 9am to Noon
Nursing Ward	24 hours
HR	Monday - Saturday: 8.30am to 5.30pm
OPD	08:00am to 08:00pm Staggered timings for various OPDs

## SPECIALITIES

BLK is a state of the art hospital which provides high class specialities for the people of NCR as well as for International patients.

<ul style="list-style-type: none"><li>• Anesthesia &amp; Pain Management</li><li>• Bone Marrow Transplant</li><li>• Cancer Care, Cyber knife Centre</li><li>• PET Scan</li><li>• Gastroenterology &amp; GI Surgery</li><li>• Liver Transplant</li><li>• Bariatric Minimal Access Surgery</li><li>• Cardiac Care</li><li>• Obstetrics &amp; Gynecology</li><li>• Neurosciences</li><li>• Orthopedics</li><li>• ENT Surgery &amp; Cochlear Implant</li></ul>	<ul style="list-style-type: none"><li>• Infertility &amp; IVF Treatment</li><li>• Pediatrics &amp; Neonatology</li><li>• Nephrology &amp; Urology</li><li>• General Surgery</li><li>• Kidney Transplant</li><li>• Dermatology</li><li>• Ophthalmology</li><li>• Dentistry Medicine</li><li>• Ayurveda</li><li>• Physiotherapy &amp; Rehabilitation</li><li>• Pulmonary Medicine</li><li>• Psychological Medicine</li></ul>
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## Section 4

### **GENERAL FINDINGS**

This section includes general findings which have been given department wise.

#### **EMERGENCY & AMBULANCE**

Emergency medicine is a specialty that focuses on the diagnosis and treatment of acute illnesses and injuries that require immediate medical attention. Emergency medicine is practiced as patient-demanded, 24\*7 continuously accessible care provided by physicians trained to immediately evaluate, diagnose, stabilize and treat patients with acute injuries and illnesses.

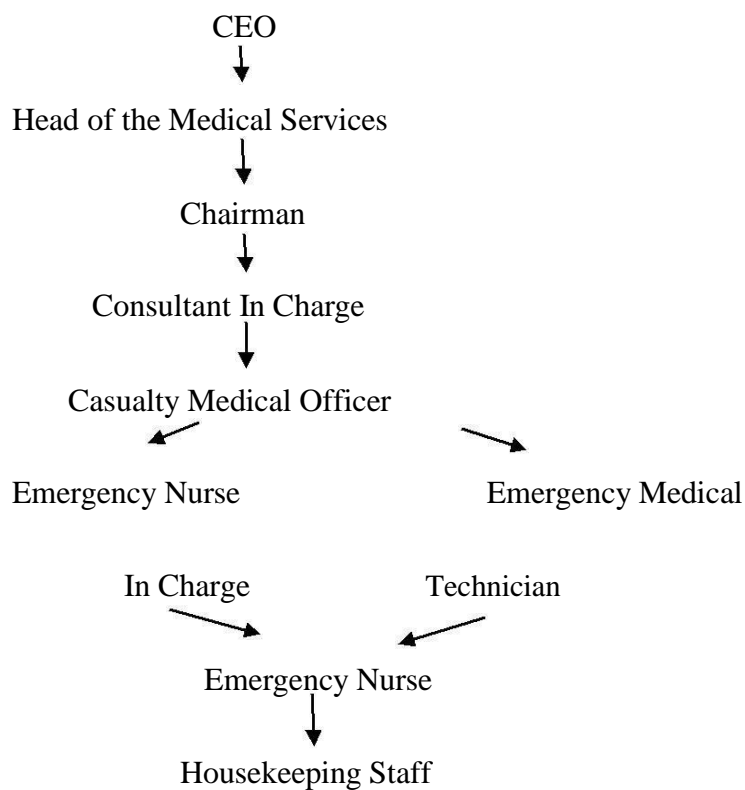
#### **Staffing plan**

24\*7 availability of :

- 2 EMOs available
- 2 nurses available in TRIAGE
- 1 front office staff
- 2 Guards (1 inside & 1 outside)



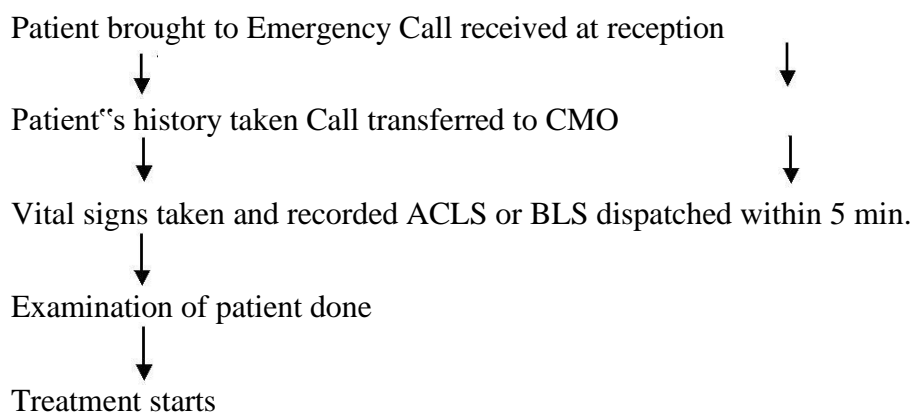
## Hierarchy



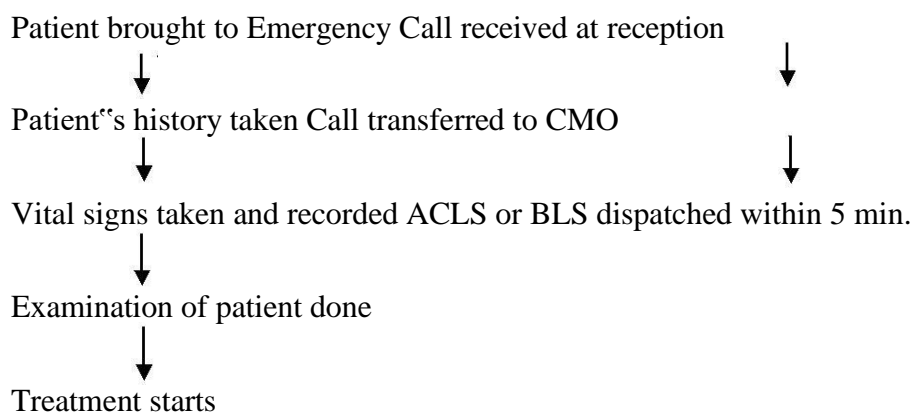
## Functioning

- To manage and treat injured and acutely ill patients
- To ensure availability of resources in the Emergency department
- Operate a 24\*7 unit that provides Emergency medical care

## Process flow in Emergency



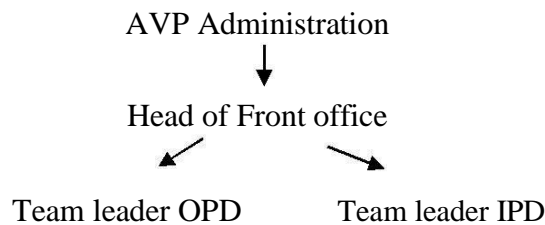
## Process flow for Ambulance



## FRONT OFFICE

Front office coordinates with other departments i.e. outpatient, inpatient, ambulatory care and day care patients on their arrival

### Hierarchy



### Functioning

- To coordinate with all departmental heads, medical and non-medical for smooth flow of patients
- To be responsible for the resolution of all customer queries
- To ensure accurate and timely registration
- To have complete orientation of NABH
- To effectively handle, appointment, admission and discharge of patients

### Process flow for OPD patients

Setting up an appointment

Patient registration and invoice generation

Patient diagnosis and treatment

Review consultation and feedback form

### Process flow for IPD patients

Patient informed about billing policy

Advance taken from the patient

Patient details entered in HIS

All documents generated like face sheet

## **OPD**

OPD is first point of contact between patient and hospital staff. OPD is a very important wing of the hospital and visited by large section of the community.

When patient come to the OPD department after that they fill the form for registration after that patient registered in HIS by OPD front office staff after that by front office allotted MRD number to the patient There also MRD card also given as per category after that front office take consultant charge from the patient after all this token number given to the patient to wait for his/her turn after all this patient will see by consultant

### **MRD CARDS**

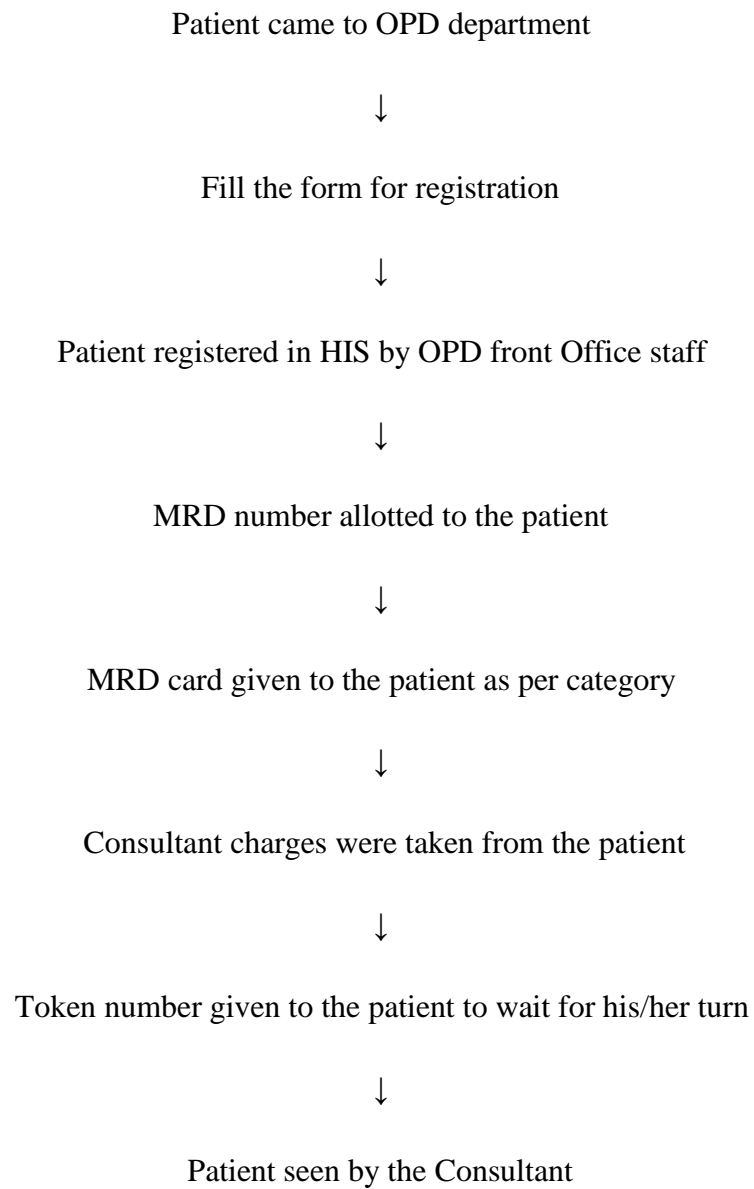
These card are made at the time of registration

- Blue Card : For General Patients
- Green Card : For Private Patients
- Orange Card : For Hospital Staff
- Yellow Card : For Senior Citizen

### **Functions**

- To provide for the community a major source of specialist diagnostic medical opinion
- To treat on ambulatory and domiciliary basis all cases which can be treated in outpatient department
- To promote health for the individuals under care in the outpatient department by means of health education

## OPD process flow





### **Staffing plan for Medicine in General OPD**

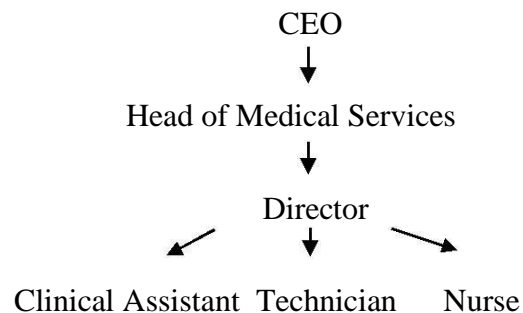
- 3 sets of Doctors
- 1 nurse for recording vitals

Patient intake capacity is 90 patients per day.

## **INTERVENTIONAL RADIOLOGY**

Interventional radiology describes the field of medicine that utilizes X-ray, ultra waves and magnetic resonance properties of the cell in order to detect and perform diagnostic and minimally invasive procedure.

### **Hierarchy**



### **Services offered**

- Mammography
- Sonography
- Fluoroscopy
- Radiography

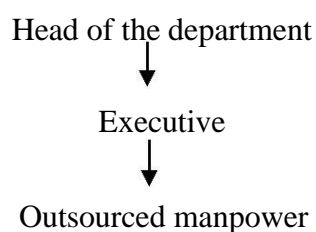
## Functioning

- To ensure smooth conduct of Mammography, ultrasound, colour Doppler, interventional procedures alone
- To follow all equipment calibration / maintenance schedules for accurate results and proper working of equipments
- Quality control to ensure high quality radiological investigations & interventional procedures.

## LAUNDRY

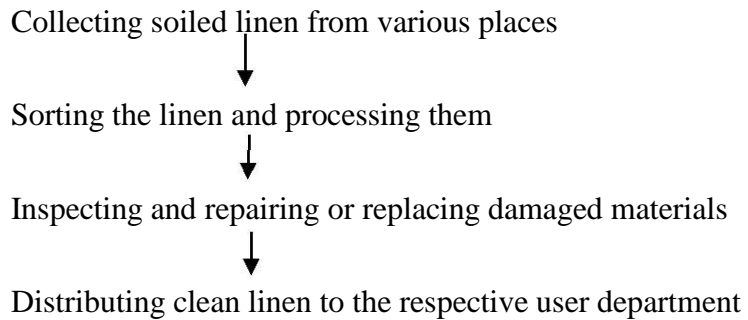
Laundry service is responsible for providing an adequate, clean and constant supply of linen to all users. A reliable laundry service is of utmost importance to the hospital. An adequate supply of linen is sufficient for the comfort and safety of the patient thus becomes essential.

### Hierarchy

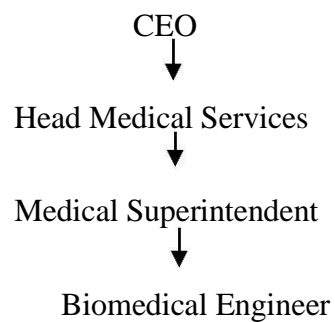


Manpower is outsourced and owned by Spencer company.

Machineries are in sourced

**Process flow****BIOMEDICAL ENGINEERING**

Biomedical engineering department is responsible for testing, repairing and maintaining in proper and safe operating condition, the hospital's diagnostic and therapeutic equipment.

**Hierarchy****Functioning**

- Perform installation, preventive and corrective maintenance.
- Provide pre-purchase evaluation of new technology and equipment
- Conduct device incident investigations

## FOOD & BEVERAGES

Food and beverage department also requires proper management. Since food and beverage directly affects the patient's health, it requires great attention.

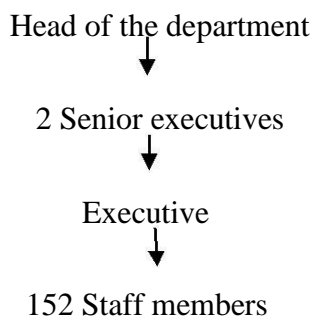
### Patient's Food Timings:

Morning Tea	6:30 a.m.
Breakfast	7:30 a.m. to 8:00 a.m.
Mid Morning Soup	11:00 a.m.
Lunch	12:30 p.m. to 1:00 p.m.
Evening Tea	4:00 p.m.
Evening Soup	6:00 p.m.
Dinner	7:30 p.m. to 8:00 p.m.
Bed Time Milk	9:30 p.m.

### Food timings for Patient's Attendant:

Bed Tea	7:30 to 8:00 a.m.
Breakfast	8:30 to 9:30 a.m.
Lunch	1:30 to 2:30 p.m.
Evening Tea	4:30 to 5:30 p.m.
Dinner	8:30 to 9:30 p.m.

### Hierarchy

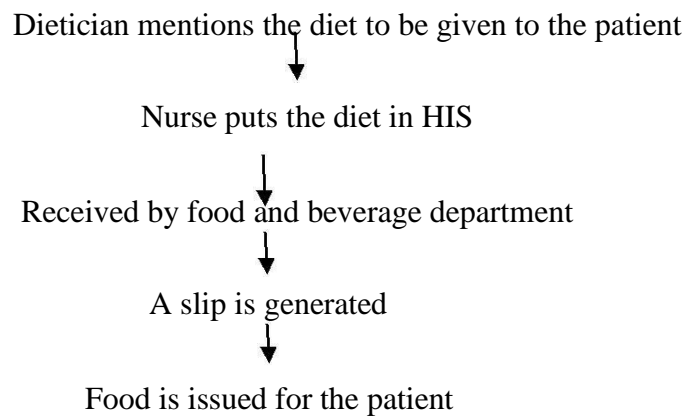


Food and beverage department is outsourced in the hospital.

### **Functioning**

- maintain health, safety and sanitation level
- provide nutritious food to the patient

### **Process flow**



### **Finding issue**

- food service timing
- very slow service

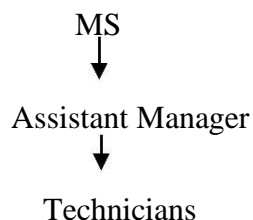


## MEDICAL RECORD DEPARTMENT

Medical record is clinical, scientific and administrative and legal document relating to patient care in which is recorded sufficient data written in sequence of events to justify the diagnosis and warrant the treatment and end results .

When patient is discharged from the hospital, his IPD file sent to the MRD where file is checked for complete and chronological order of documents and ICD coding is done according to WHO (Disease Index Card is not used) and hard copy of IPD file is stored in the store room of MRD. Birth and Death records are registered within twenty one days online by MRD. There is one HOD, four Technicians and one GDA in this department. Ideally there must be one person to kept record of fifty patients in MRD.

### Hierarchy



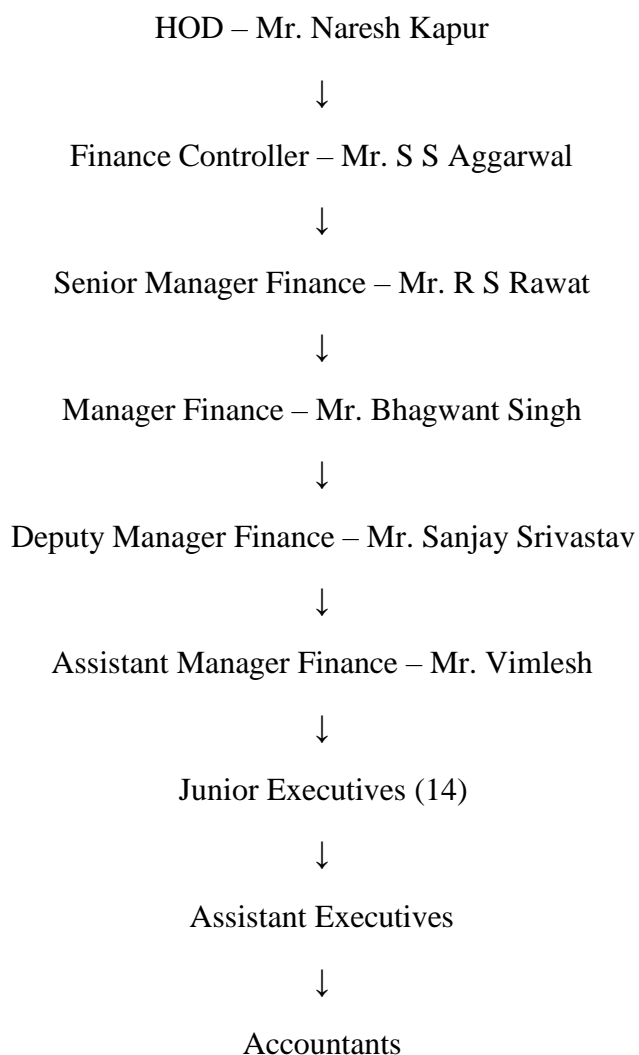
### Functioning

- To establish, organize and manage the medical records department with appropriate systems to provide an effective service
- To review the medical records of discharged patients and emergency patients to ensure that they include all important documents
- To prepare and maintain medical records, and birth and death certificates and registers.

**ACCOUNTS DEPARTMENT:**

Contacted person : Mr. Sanjay Srivastav (Deputy Manager)

Hierarchy :

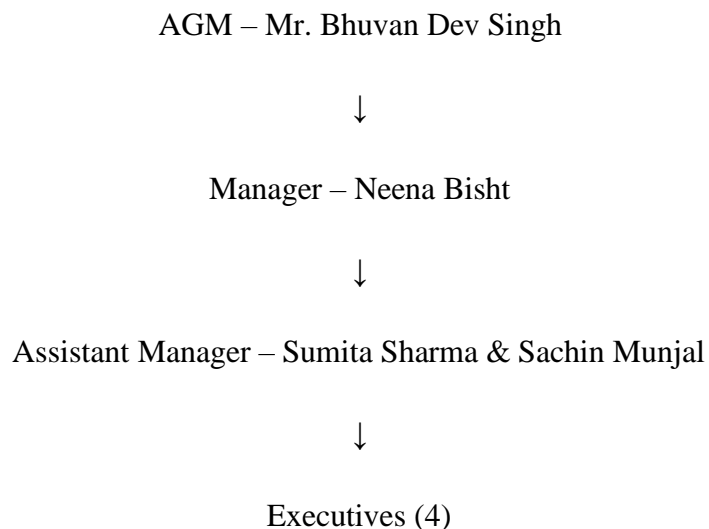


Accounts department uses the software called Navigen, One of the benefit of this software is that you cannot delete anything you entered you can just revert it. The Data from HIS is Merges to Navigen within 24 hours.

Whole Accounts section divided into three sub sections Accounts, Finance and Billing

## HUMAN RESOURCES:

Hierarchy :



Process Flow:

Main function of HR department is to recruit persons for the Hospital and kept record of the recruited persons. Performance appraisal is decided on the basis of rating given to that employ.

Rating for Performance appraisal:

- |          |   |                             |
|----------|---|-----------------------------|
| 1. Five  | - | Beyond Expectations         |
| 2. Four  | - | Exceeds Expectations        |
| 3. Three | - | Meet"s Expectations         |
| 4. Two   | - | Partially Meet Expectations |
| 5. One   | - | Below Expectations          |

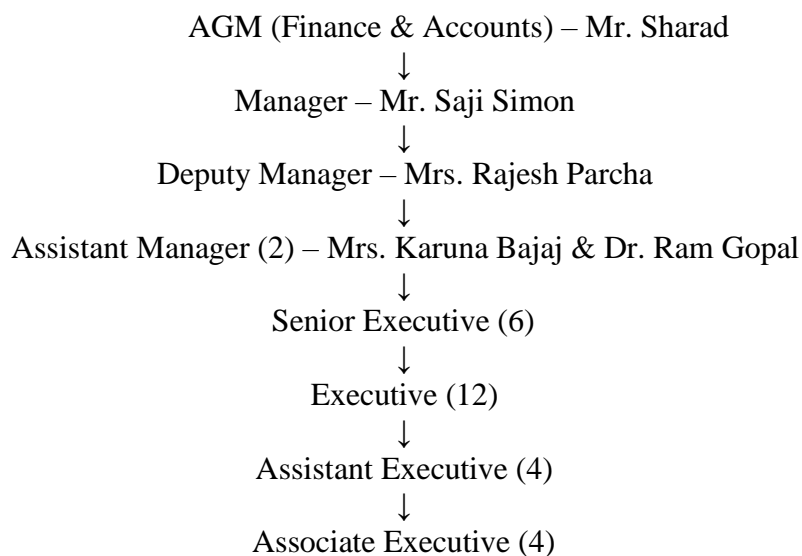
## **IPD BILLING**

- After getting billing activity they start preparing the final bill
- Make sure that ward secretary have put intimation for discharge
- Billing cycle is 12 midnight-12 midnight
- If patient vacant the room by 12 noon no room charge shall be levied for that day
- When a consultant advises Discharge of the patient, it takes some time to prepare the final bill, discharge slip. As soon as the final bill is ready, you will be called to the Billing Counter

### **Working protocol for billing**

- Patient file send to the floor for billing purpose
- If patient gone for any surgery then billing people ask for that sheet also for billing purpose
- Then they will check for pharmacy ,blood bank,food and beverage
- After that they start prepare the bill
- Bill takes 10-20 minute for prepare
- After deposit of money from attendant billing staff gives the final bill printout and billing clearance
- Billing cycle is from 12 midnight to 12 midnight, however on the day of discharge if the patient vacates the room by 12 noon no room charges shall be levied for that day. In case patient vacates the room by 6 pm half day room rent shall be levied & beyond 6 pm full day charge will be levied.
- Payments are to be made in Advance and whenever intimation for advance deposit is given
- When a consultant advises Discharge of the patient, it takes some time to prepare the final bill, discharge slip. As soon as the final bill is ready, patient attendant will be called to the Billing Counter.

## HIEARCHY



### Document which billing staff needs for billing

- Face sheet
- Admission request form
- Counseling form
- General consent form
- Billing activity sheet
- OT consent form
- ICU (if patient was admitted there)

### Issue which should be resolve

- About half day charge for billing
- Any unplanned surgery which is not informed to the attendant
- More trained staff



## **IPD Department**

**Working protocol of IPD:** Patient comes for admission in ward after consulting by doctor in Emergency/ OPD. Front office staff asking for desired room category (like hospital have single room/Double room/ General room/ VIP room) , where patient wants to stay. After selecting the room category by the patient front office staff makes Estimate amount of the treatment and confirm from patient/attendant whether they want to admit or not. After confirming from patient staff do the admission process. Admission done under under TPA OR CASH. Initial amount patient will deposit for admission process. Patient shifted in Ward/ OT/ICU For further treatment.

OPD/ Emergency consultation done



Doctor suggested- Admission



Admission done under TPA or CASH



Initial amount taken according to the Estimate



Patient shifted to desired room category

## **Problem finding**

Sometime desired room category is not available which patientwants, dut to admission of more patient or old patient is already admitted, so patient gets hyper.

## **Floors**

### **1<sup>st</sup> floor**

- OPD 3<sup>rd</sup>-7<sup>th</sup>
- there is separate lounge for International patients there and
- Laboratory services.

### **2<sup>nd</sup> Floor**

- 1) ICU – ICU of patients whose operation have done.
- 2) Operating Rooms – Operation Theatre for all specialties“.
- 3) Cath labs- For Heart patients.
- 4) Endoscopy suites- Test of abdomen related problem
- 5) Transplant Rooms- Kidney Transplant area.

## **General Findings**

Biomedical waste do not get disposed on time, so infection chances will increase and other patient can also get affected by this

.

### **3<sup>rd</sup> Floor**

- 1) A mix of single and double rooms
- 2) Nursing Station- Nursing counter for any enquiry related to the patient and where nurses sit for making files of the patient
- 3) Floor Administration room
- 4) NS room
- 5) doctor“s duty room

## **General Issues:**

Patient do not vacant room on time after submitting bill amount.

#### **4<sup>th</sup>Floor**

- 1) Suites – Rooms more superior than single rooms
- 2) DMS room
- 3) PICU,NICU,LABOUR ROOM,MBU(multi bed unit)
- 4) Nursing Station-Nursing counter for any enquiry related to the patient and where nurse sit for making files of the patient
- 5) Floor coordinator room

#### **5<sup>th</sup>floor**

- day care and IPD in A block
- single bedded rooms in B block
- Triple bedded rooms in C block
- Oncology day care and IPD in D block

#### **6<sup>th</sup>floor**

- , only block A and C are for other IPD Patients
- floor B- block is not started yet for IPD services
- dedicated area of D – block is for BMT Patients,

#### **7<sup>th</sup>floor**

- there are all Executive departments including HR, IT, Finance, Marketing, Purchase, Quality.

**Overall working protocol of staff on Floor****Ward secretery**

- Maintains MRD files.
- Dispatch those MRD files before 5pm
- Attends calls in absence of Nursing Staff.
- Sends billing activity sheets of patients to billing Department.
- Pharmacy Return.
- Send Discharge summary and Lab reports to TPA
- Put intimation on system about planned discharge and unplanned discharge
- Send discharge list of the floor to floor head

**Issue findings**

At the time of unplanned discharge, there are lots of Pharmacy returns left. Which takes time and other discharges gets delayed

**PCC (Patient care coordinator)**

- Orients and educates patients and their families by meeting them; explaining the role of the patient care coordinator; initiating the care plan; providing educational information in conjunction with direct care providers related to treatments, procedures, medications, and continuing care requirements
- Monitors delivery of care by completing patient rounds; documenting care; identifying progress toward desired care outcomes; intervening to overcome deviations in the expected plan of care; reviewing the care plan with patients in conjunction with the direct care providers; interacting with involved departments to negotiate and expedite scheduling and completion of tests, procedures, and consults; reporting personnel and performance issues to the unit manager; maintaining ongoing communication with utilization review staff regarding variances from the care plan or transfer/discharge plan

**Issue finding**

- There is only two PCC in hospital its very difficult to coordinate with all patient also difficult to visit of all patient that's why mostly patient complain about PCC



**Dietician / Nutrition**

- They advise the proper food to the admit patient on that floor
- Maintain data of the patient what food they have suggested to the patient.
- They go individually to patient and counsel for food what they can eat and what they can not eat.
- If patient getting discharge then they also advice for the food which will be helpful for his body.
- Morning 9 o'clock dietitian starts her round and till 11:15am, they make sure they have completed there round and updated there data also what lunch and other food f&b have to give to patient.
- When Dietitian go to the patient room they give the list for food which will serve in next 24 hrs and ask for choose the food item from the list and signature over there.
- Patient generally gets 8-times food with following 11 days Menu

**General Findings**

Time management of food & Beverage staff, because they generally don't come on time, so patients gets angry.

### **Nursing Staff**

- When any new patient admitted to room, within 15 min nurses go to the patient room and inform doctors also
- Nurses maintain the Nursing flow sheet in which they maintain patient BP, Fever in Morning, Evening and Night.
- Also maintain Vital flow sheet in which they maintain pulse rate of the patient.
- Patient and Nurse ratio on **Floor 6:1**
- Nurses give medicine and all other pharmacy related things to the patient
- Update medicine data of the patient
- If any lab test needs then she takes care of that.
- Maintain all billing activity on Day by Day
- When patient getting discharge then she will give the billing activity for billing, and also inform to Ward Secretary for Discharge summary preparation.
- Do the pharmacy return of the Patient
- She makes sure that Billing clearance has been done and patient can go to his home

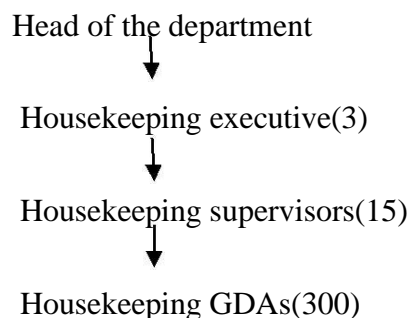
### **General Findings**

Nurses to Patient ratio; 1:6, It should be less, so that nurse can do better care of patient.

## 1) House keeping

Housekeeping is an important element of safety. A good housekeeping can help in infection control leading to decreased length of stay of patients.

### **Hierarchy**



### **Functioning**

- Prepare schedule for the floor scrubbing, deep cleaning and vacant room cleaning
  - Cleanliness standards as per the standards defined by the hospital management
  - Clean patients room, toilets, ICUs, OTs and floors
  - Check and control equipment like scrubbing machine
  - Check all patient utility items provided in the wash room
  - Ensuring that housekeeping materials are available in adequate quantity in house keeper's trolley
  - To supervise waste disposal on floor
  - Check all areas according to area checklist
- 
- Rooms are divided in 4 block A,B,C,D
  - In single time 3 rooms can be clean
  - Service time- 7-9 am, 11-1pm, 6-8pm, 9-10pm
  - When room get vacant within 30 min room should be clean and update room is ready

- In DUCU( dirty utility and clean utility ) room all waste kept and sends to biomedical waste department
- Colour coded beens have been kept there – Black, Blue, Yellow, Red
  - Black-** General used things
  - Blue-** less than 100ml glass items which in unbroken
  - Yellow-** Body parts
  - Sharp container-** Needle, broken glass
  - Red-** Infected linen
- Linen sends in two bag
  - General bag-** only uninfected linen
  - Red bag-** Infected linen
- In a room for attendant pillow, bed sheet and blanket provided. Make sure all these things should be available in room
- For Patient- Gown, chappal
- After cleaning the room by Room boys, Housekeeping supervisor will check the room and make sure all things have been clean and changed properly. Then he update on system that room is ready
- If any room any maintain needs, then supervisor will complain to the complain department.

## LOG BOOK

S.no	Date	Department	Activity Assigned	Key Learning
1)	03.03.2015	IPD	OBSERVATION	Came to know about IPD process
2)	5.03.2015	IPD	Dispatch investigation report	I came to know how to check the investigation report in HIS also see the report is certified by doctor orb no
3)	15.03.2015	IPD	See the discharge status on the floor	Come to know about how the discharge process work
4)	1.04.2015	IPD	Feedback & call to the patient	Come to know about how to communicate with patient in phone and listen there problem & how to resolve them
5)	6.04.2015	IPD	Pre admission check list	In this we get to know about face sheet is patient is cash, or TPA
6)	9.04.2015	IPD	Patient file checking	In this we also get to know how to check the patient file is nurse giving medicine in time or no
7)	10.05.2015	IPD	Daily round with ANS	In this I learn how to communicate with him or his/her attendant & listen there problem regarding hospital service and how to solve there problem immediately & how to satisfying patient

## **Conclusion**

**Learnt floor management , patient care, management of patient records and many more skills in the hospital .**

## **Learning Points**

### **1) Patient Centricity**

- Commit to best outcomes/ experiences for patients
- Treat patients and there caregivers with compassion and understanding
- Patient"s need will come first

### **2) Integrity**

- Be principled open and honest
- Demonstrate moral courage to speak up and do the right things

### **3) Teamwork**

- Proactively support each other and operate as one team
- Respect and value people at all levels with different opinions, experiences and backgrounds
- Put organization needs before department/ self-interest

### **4) Ownership**

- Be responsible
- Take initiative and go beyond the call of duty
- Deliver commitment and agreement made

### **5) Innovation**

- Continuously improve and innovate to exceed expectations
- Challenges ourselves to do things differently



### **Recommendations**

- Billing process needs to be maintain on time, because this is major factor where patient gets unsatisfied from the hospital This process should be maintain.
- Proper and scheduled training has to be given for the all staffs.
- Special training has to be given for the personnel who are head in departments as well junior staff also on regular basis. These training sessions should not become merely a onetime activity but should be a continuous process.



### ***Special recommendation***



**When a patient is discharged . sometimes the patient has to wait for his or her attendant for the billing,and many times patient has his train reservation late evening due to which patient do not vacant room on time . Due to these kind of reasons the vacant beds are not available on time for other admitted patients even when the patient is discharged . so hospital must provide an arrangement for these kind of patients like waiting wards attached clock rooms and cafe area plus cab facility . so that they can put their belongings in clock room and if they want to go to any religious places they can . This facility can be done by outsourced agencies by doing this hospital can have lots of vacant beds at regular interval of time .**

**References**

**Blkhospital.com**

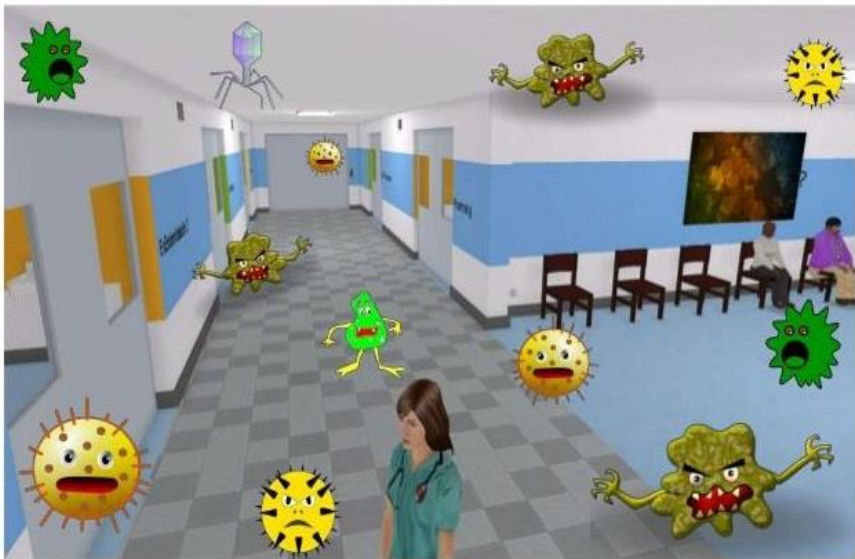
## Annextures



# Hospital Acquired Infections

“Nosocomial infection”

## Nosocomial Infections



- Kalpesh Zunjarrao

Dr Shubham Tyagi  
MBBS, MD  
PG/13/077

# Definitions



## ❖ Hospital Acquired Infection

Infections contracted by patients / HCW due to direct exposure to hospital infectious environment

## ❖ Hospital Associated Infection

Infection contracted by any person where origin of infection can be attributed to activities of hospital

(Now both terms are used synonymously)

## ❖ Infection contracted by patient within 48 hrs of admission into the hospital



# Introduction

Changing concept of Medical Care

From

“Care & Cure”

To

“Cost effective,  
High-tech,  
Consumer oriented Service”



# Judicious use of resources (men, material, technology)

- Combat Infection
- Reduce morbidity
- Decrease length of hospitalization
- Conserve manpower



Hospitals **treat** all type of patients,  
including **infectious** patients.

However, by the very nature  
of their functions, the hospitals  
themselves become a **source of  
infections**





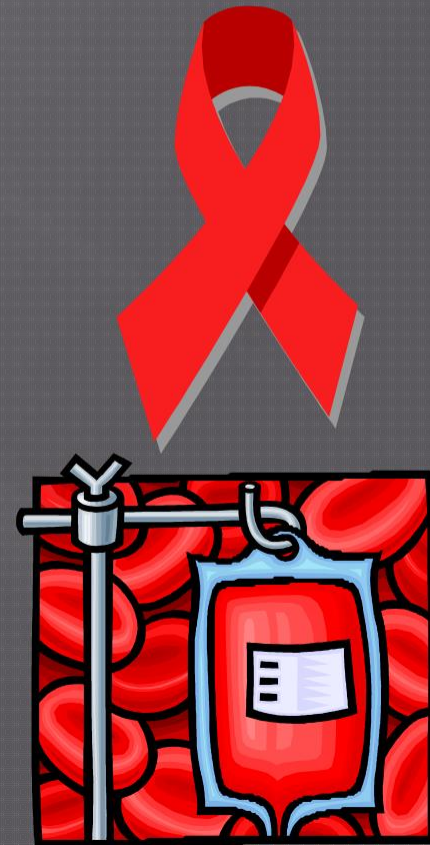
# RISK GROUPS

- PATIENTS
- HEALTH CARE WORKERS (HCWs)
- VISITORS
- SOCIETY



• Level of risk is directly proportional to the probability of exposure to :

- Infecting environment
- Infected material
  - Blood
  - Body fluids
  - Infected equipment
- HIV / Hepatitis Viruses has Increased risk & changed the scene of HAI





# PROBLEMS



- ▣ No data based controlled study on HAI
- ▣ Nosocomial infection surveillance data not available / shared by hospitals

# Infection Control Programme In BLK Super Specialty Hospital



# Aim

- ❑ To lower the risk of infection during hospitalization
- ❑ Protect the hospital staff and other health care workers
- ❑ Protection of the community

# Thrust Areas

Development of :

- ❑ An effective Surveillance system
- ❑ Policies and procedures to reduce the risk of HAI
- ❑ Continuing education program



# Strategies

- ❖ Appreciation of basic microbiology
- ❖ Work practices which prevent spread of infection
- ❖ Conscientious hygiene
- ❖ Standardised procedures for sterilisation and disinfection
- ❖ Modification of clinical procedures
- ❖ Single-use or sterilisable equipment

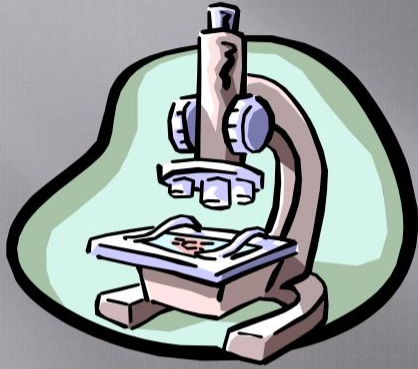
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# Strategies (cont.)

- ❖ Appropriate use of antibiotics
- ❖ Occupational health and safety policies
- ❖ Vaccination
- ❖ Surveillance
- ❖ Legal and ethical considerations
- ❖ Education and training
- ❖ Risk minimisation techniques.



**MICROBIOLOGIST**



**NURSE**



**PHYSICIAN**



**ICC**

**SURGEONS**



**ADMINISTRATORS**

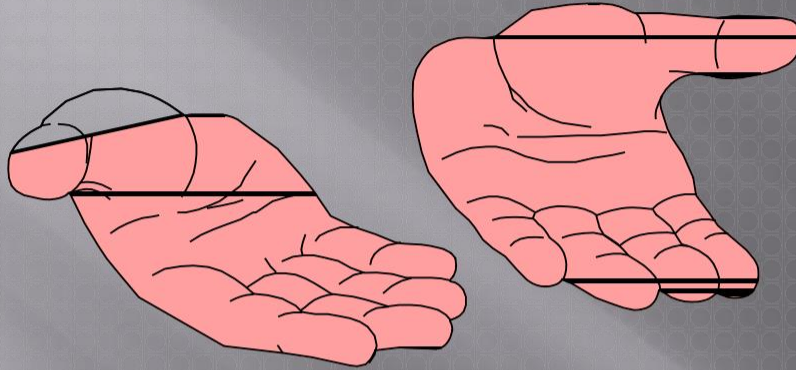


# Sources of Hospital-Acquired Infections





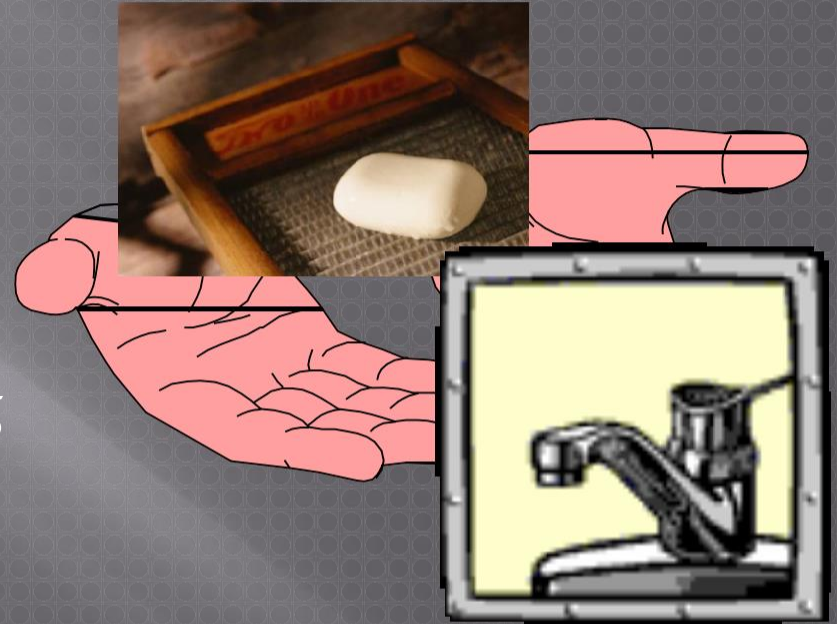
# Hand Washing



Social hand washing  
Hygienic hand washing  
Surgical hand washing

# Social Hand Washing

- ▣ Before handling food, eating and feeding
- ▣ After visiting the toilet
- ▣ Before and after nursing the patient
- ▣ Whenever hands are soiled

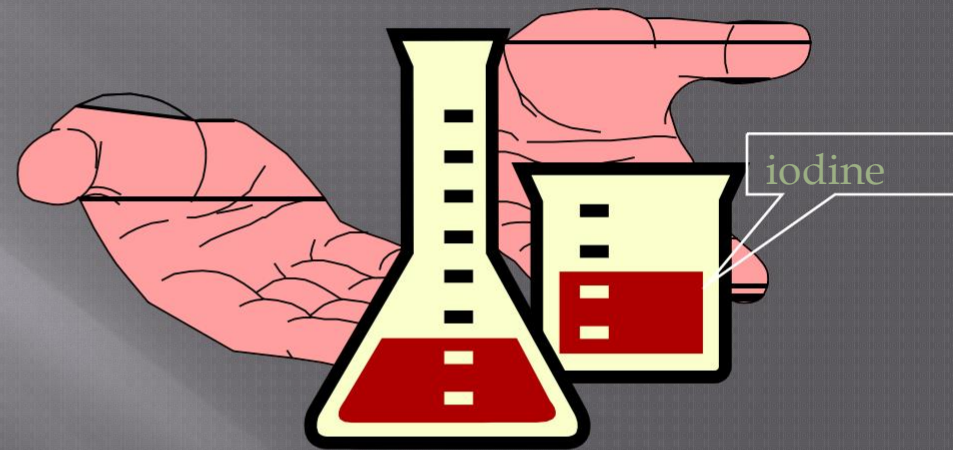


- Soap & water
- For at least 10 sec
- Dry with disposable towel



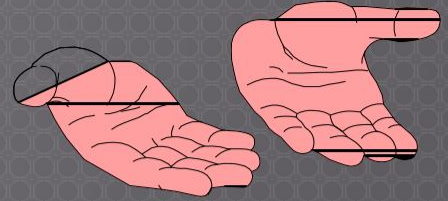
# Hygienic Hand Washing

- ▣ Before performing invasive procedures
- ▣ Before caring for susceptible patients
- ▣ After contact with blood/secretions



- 4% chlorhexidine gluconate
- Providone-iodine
- Detergent soln containing 0.75% available iodine

# Surgical Hand Washing



- ▣ With the aim to remove and kill the transient flora and to decrease the resident organisms

( to prevent the risk of wound contamination when gloves damaged)





# Standard (Universal) Precautions

- ▣ Wash hands before and after contact with patient or specimen.
- ▣ Handle blood of all patients as potentially infectious.
- ▣ Wear gloves before contact with blood or body fluids of patients.
- ▣ Place used syringes in appropriate containers. **Do not recap syringes.**
- ▣ Wear protective eyewear and mask if there is risk of splatter of blood.
- ▣ Wear gowns when splash with blood or secretions is anticipated.
- ▣ Handle linen soiled with blood / secretions as potentially infectious.
- ▣ Process all lab specimens as potentially infectious.
- ▣ Wear mask for TB and other respiratory organism.

# Rationale

- ▣ This study is conducted to have well designed physical setting & it plays an important role in making hospitals safer and more healing for patients and better place for staff to work.& guide healthcare design, especially with respect to reducing the frequency of hospital-acquired infections .



# Conclusion

- ▣ NUMBER OF PATIENTS SURVEYED IN NEW DELHI HOSPITAL 100 PATIENTS . OUT OF 100 ONLY 80 SAID YES THAT THE HOSPITAL STAFF USE DOUBLE GLOVES WHILE ATTENDING HIV & HEP. B PATIENTS . ONLY 90 PT. SAID YES THAT ISOLATION OF HIV & HEP. B, T.B PT. IS DONE IN THIS HOSPITAL . ONLY 70 PT. SAID THAT PROPER STERILIZATION TECHNIQUE IS USED IN THIS HOSPITAL . ONLY 25 PT. KNOWS ABOUT THE PROPER HANDWASH TECHNIQUE OUT OF 100. ONLY 60 PT. SAID THAT FOOD SERVED IN THE HOSPITAL IS HYGIENICALLY SERVED AND COOKED.

# *CONCLUSION AFTER QUESTIONNAIRE*

- ▣ .....OUT OF 100 PATIENTS.....
- ▣ THE NO. OF PATIENTS WHO DEVELOPED UTI  
AFTER HOSITALISATION ..... 25 PATIENTS
- ▣ NO. OF PATIENTS WHO DEVELOPED COUGH  
AFTER HOSPITALISATION .....10 PATIENTS
- ▣ NO OF PATIENTS WHO DEVELOP SWELLING  
ON AREA WHERE VENEIOUS PUNCTURE WAS  
DONE .....10 PATIENTS
- ▣ NO OF PATIENTS WHO DEVELOP  
DIARRHOEA ..... 5 PATIENTS





# 1 .INTRODUCTION

## Background

Hospital-acquired infections (HAIs) (also called “nosocomial infections” or “health-care-associated infections”) are infections that a patient acquires while in hospital being treated for some other condition. They have a significant impact on both patients and the province’s health system. For patients, the impact of such infections can range from longer hospital stays to more serious conditions that may require surgery or result in negative long-term health effects. In severe cases, HAIs can cause death. For the health-care system, such infections increase treatment costs and result in longer wait times for a hospital bed for other patients .

For the last 20 years, hospital-acquired infections (also known as nosocomial infections) have been of increasing concern to health care providers, consumers, insurers and governments. Historically, about five to 10 per cent of admitted patients are affected, and the highest rates of infection usually occur in large teaching hospitals. Up to one-third of hospital-acquired infections are regarded as preventable (Cruse et al, 1980). The Australian Council on Healthcare Standards (ACHS) first organised investigations into the establishment of a surveillance system for hospital-acquired infections in Australia. However, experience in the system indicated that, in terms of day-to-day management of infection, more was required. Significant effort and time had been spent on data collection, rather than prevention. A good system would have an immediate flow-on regarding everyday patient care. Some of the factors that have been identified as helping to reduce infections include early identification of infection, comparability with other available data, feedback to clinicians, and identification of factors that contribute to infection .

# Problem statement

*Hospital acquired infections : a serious and growing problem.*

- Hospital acquired infections or nosocomial infections , are an ongoing concern to health care professionals .
- These infections are one of the major causes of death in hospitalised patients and are a significant burden on not only the patients and public health but also the economy (as organisms causing nosocomial infections can be transmitted to the community through the discharged patients ,staff and visitors) .

## **1. Defination**

## **2. Types of nosocomial infection**

## **3. Infective organisms**

## **4. Patients population**

## **5. Risk factors**

### **What is nosocomial infection?**

- A nosocomial infection is an infection acquired at least 48 hours after being admitted into hospital for any reason . The infection should not be in the incubation state at the time of admission .
- Infections are also identified as nosocomial if they appear with in 30 days after their discharge from hospital.
- To help you understand better about nosocomial infection lets suppose you had an accident and you had several injuries and bone fractures too for which you undergone surgeons and the surgeons at the hospital put you back together with various pins ,screws , plates and laots of stitches both internally and externally.this is an invasive procedure but it saves your life . After surgery you will be loaded with antibiotics as your immune system is weak but still you develop infection despite being laoded with antibiotics .This infection is not due to accident but actually

it develops in your body when you are hospitalized. This infection is nosocomial infection.

## Types of nosocomial infection .

- **Urinary tract infections** -- This is the most common nosocomial infection. 80% of infection are associated with the use of an indwelling bladder catheter urinary infection are associated with less morbidity then other nosocomial infection .
- **Surgical site infections** -- Surgical site infection is a type of healthcare-associated infection in which a wound infection occurs after an invasive (surgical) procedure.

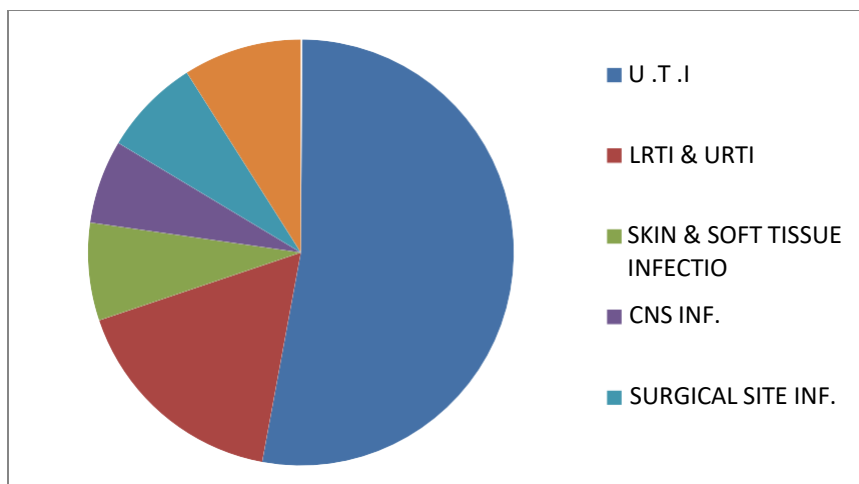
### Respiratory tract infections –

Nosocomial pneumonia is the second-most-common nosocomial infection and is usually bacterial in origin. The disease adds significantly to the cost of hospital care and to the length of hospital stays.

**Blood stream infections** – Bloodstream infections ( BSI ) can have significant adverse impacts: *Staphylococcus aureus* bacteraemia (SAB) is the most common type of healthcare-associated BSI. . Catheter-associated BSIs are a particular problem in intensive-care patients and immunocompromised patients who depend on artificial vascular access.

**Skin infections** -skin infections are common and may be caused by bacteria ,fungus or viruses .they break the skin integrity and particualy those who can inoculate into dermis and can frequently cause skin infections.

**Gastrointestinal tract infections** *clostridium difficile is the most important cause of infectious diarrhea . Patients with serious illnesses and prolonged hospitalizations are at particular risk.*



**Patient populations**

- Certain populations are more likely to acquire a particular type of infection. For example, *Staphylococcus aureus* is a greater concern for those who have undergone major surgery.
- Other patient populations that are often the focus of infection indicators are newly-born infants and ICU patients. They have a relatively high risk of acquiring an infection and experiencing significant harm, including possibly death.

## **Risk factors**

### **1. Environmental**

- Inadequate cleaning of potential fomites (furniture , shared facilities , medical equipments) , contaminated water supply ,contact with health care staff and other patients .

### **2 . Personal**

- Prolonged admission of immunocompromised patients (HIV ,cancer , diabetic ) , use of broad spectrum antibiotics , insertion of cannulae and catheters and any surgical procedure
- **Methods for Prevention and control of infection.**

#### **1 ) Institutional :**

Handling , storage and disposal of clinical waste ,Safe removal of spilled blood and body fluids ,Cleanliness of environment and medical equipments ,Specialised ventilations (air filtration),Food hygiene ,Sterilisation and disinfection of instruments,Laundry management

#### **2) Health care staff :**

- ❖ Proper hand hygiene including hand washing
- Step 1 – wet hands with water
- Step2 – apply enough soap to cover all hand surfaces
- Step 3 – rub hands palm to palm
- Step 4- rub right palm over dorsum surface of left hand
- Step 5 – palm to palm with fingers interlaced



- Step 6 – back of fingers to opposing palms
- Step 7 – rotational rubbing of left thumb in right palm and vice versa
- Step 8 – rotational rubbing with clasped fingers of right hand in left palm and vice versa
- Step 9 –rinse hands with water
- Step 10 – dry hand with a single use towel
- Step 11 - use towel to turn off tap

# How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

 Duration of the entire procedure: 40-60 seconds



Wet hands with water;



Apply enough soap to cover all hand surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



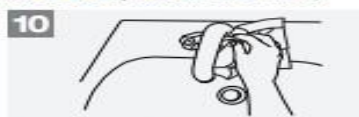
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Rinse hands with water;



Dry hands thoroughly with a single use towel;



Use towel to turn off faucet;



Your hands are now safe.



World Health Organization

Patient Safety  
A World Alliance for Safer Health Care

SAVE LIVES  
Clean Your Hands

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## ❖ Use of personal protective equipment

- Use of Masks ,Sterile and non sterile gloves ,Gowns & Aprons

- ❖ **Screening of health workers** for disease like Tuberculosis, Hepatitis B virus ,HIV ,MRSA ( Methicilline resistant staphylococcus aureus ) and Educating ward boys , ward aayas about nosocomial infection,Sharps management and disposals ,Immunization and post exposure prophylaxis



### 3) Clinical practice

- ❖ Antibiotics should be used only when necessary And Avoid drugs known to select multi resistant organisms , use of aseptic techniques for invasive procedures, antibiotic should be given before any surgical procedure .

#### 4) Response to infection

surveillance to detect alert organism outbreak and antimicrobial resistant . surveillance helps in detecting the disease out breaks early and isolation

- Types of isolation precautions
  - 1 airborne transmission -masks or personal respirators for staff
  - 2 contact transmission- private room preferred,inter patient spacing should be more than 1meter , gloves and gowns for staff in contact with patients or contaminated areas
  - 3 droplet transmission-private room should be preferred, inter patient spacing should be more than 1 meter , surgical masks for staff in close contact with patient

#### ▪ Rationale:

This study is conducted to have well designed physical setting & it plays an important role in making hospitals safer and more healing for patients and better place for staff to work.& guide healthcare design, especially with respect to reducing the frequency of hospital-acquired infections .

## **REVIEW OF LITERATURE**

The Centers for Disease Control and Prevention estimates that 2 million patients suffer from hospital-acquired infections every year and nearly 100,000 of them die. Most of these medical errors are preventable. Hospital-acquired infections result in up to \$4.5 billion in additional healthcare expenses annually.

The level of infection control in hospitals in India is quite low, according to a global finding which says hospitalised patients acquired 11-83 per cent of these infections.

The research by Global Antibiotic Resistance Partnership (GARP) in India also revealed that that 30 per cent of 1.9 lakh neo-natal deaths due to sepsis, a bacterial infection that overwhelms the bloodstream, are due to antibiotic resistance. Only 58,319 deaths or just 30 per cent of total sepsis deaths are attributable to antibiotic resistance.

The GARP-India research discussed at the 1st Global Forum on Bacterial Infections called for rationalising antibiotic use to limit antibiotic resistance in India and recommended enforcing hospital infection control measures to check extensive use of antibiotics.

Antibiotic resistant hospital infections are also a serious concern in India, as antibiotics are used extensively in hospitals, said experts at the Forum, cautioning that frequent use of antibiotics drives the development of highly resistant bacteria and these infections can be deadly.

*New Delhi: Hospitals in India have a high burden of infections in their intensive care units (ICU) and general wards, many of which are resistant to antibiotic treatment, according to a report by Global Antibiotic Resistance Partnership (GARP) - India Working Group and Centre for Disease Dynamics, Economics and Policy (CDDEP). The 2011 GARP report, *Situation Analysis: Antibiotic Use and Resistance in India*, also states that a large proportion of these hospital-acquired infections (HAI) are preventable with increased infection control measures.*

*Research on hospital infections in India reveals several concerning trends. In Indian ICUs, the rate of vancomycin-resistant enterococcus (VRE), a dangerous hospital infection, is five times the rate in the rest of the world. Rates of methicillin-resistant Staphylococcus aureus in Indian ICUs are also high, with one study finding over 80 per cent of S. aureus samples testing positive for resistance to methicillin and closely related antibiotics.*

Antibiotic resistant infections are difficult, and sometimes impossible, to treat. They lead to longer hospital stays, increased treatment costs, and in some cases, death. The GARP research estimates that of the approximately 190,000 neonatal deaths in India each year due to sepsis - a bacterial infection that overwhelms the bloodstream - over 30 per cent are attributable to antibiotic resistance. Antibiotic resistant hospital infections can be especially deadly because antibiotics are used intensely in hospitals compared with the community, and frequent use drives the development of highly resistant bacteria.

Organisms causing hospital infections in India are similar to those around the world, with *S. aureus* and *P. aeruginosa* among the most common disease-causing pathogens. A prospective study of 71 burn patients at [Post Graduate Institute of Medical Education and Research \(PGIMER\)](#) in Chandigarh found that up to 59 patients (83 per cent) had hospital-acquired infections: 35 per cent of pathogens isolated from wounds and blood were *S. aureus*, 24 per cent were *P. aeruginosa*, and 16 per cent were  $\beta$ -haemolytic streptococci.

Another six-month study conducted in 2001 of the intensive care units (ICUs) at [All India Institute of Medical Sciences \(AIIMS\)](#) in New Delhi, found that 140 of 1,253 patients (11 per cent) had 152 hospital-acquired infections, where *P. aeruginosa* made up 21 per cent of isolates, 23 per cent were *S. aureus*, 16 per cent *Klebsiella* spp., 15 per cent *Acinetobacter baumannii* and 8 per cent *Escherichia coli*. Further, a study of 493 patients in a tertiary teaching hospital in Goa also found that 103 people (21 per cent) developed 169 infections.

“A large proportion of these hospital infections are easily preventable with increased hospital infection control, including stepping up hygiene practices, such as frequent hand-washing,” says Dr Ramanan Laxminarayan, Director of CDDEP and vice president for research and policy at the [Public Health Foundation of India](#).

In India, however, hospitals often do not follow infection control practices, and this leads to the spread of disease. In response to the growing burden of HAIs in India, GARP is issuing several key recommendations that aim at reducing the prevalence of HAIs, including increased hand-washing, use of isolation rooms for infected patients, increased availability and uptake of diagnostic tests, reminders to limit catheter use, and use of gloves and gowns. The ministry of health and family welfare task force also recommends that all hospitals create an infection control plan, committee and team.

“Surveillance of antibiotic resistance, combined with tracking physician prescribing patterns, can be the foundation of successful infection control programmes in hospitals. But surveillance is a

*challenge in many places, where microbiology laboratories and trained staff may be unavailable,” says Dr Laxminarayan. Infection control committees may also be met with uncooperative hospital staff and administrators. “The greatest challenge is to empower infection control committees and make hospital staff aware of their activities and recommendations,”*

(<http://www.indiamedicaltimes.com/>) , ( <http://archive.indianexpress.com/> )

## Objective

This report surveys and evaluates the research based on nosocomial infections in New Delhi and extracts its implications for designing better and safer hospitals in New Delhi.

**GENERAL** – To understand various mode of transmission ,strategies for prevention and control of nosocomial infection.

**SPECIFIC** – To know the epidemiology of nosocomial infection and the reduction of cases in NEW DELHI hospitals

## Methodology

- 1.) Area of study - BLK SUPER SPECIALITY HOSPITAL NEW DELHI
- 2.) Type of study or study design – descriptive study & cross sectional study .
- 3.) Study period from 3<sup>Rd</sup> MARCH to 17<sup>Th</sup> MAY 2015
- 4.) Study population .. patients admitted in obs and paedia department
- 5) Sample size .. simple frame sampling in both of the departments

$$\text{Sample size calculation} = \frac{Pq}{e^2}$$

For 90%

The p proportion is 83 % so we will take p as  $83/100 = 0.83$

So q =  $100-p/100$  .....  $100-83/100 = 0.17$

E = 10 half of the sample  $5/100 = 0.05$

Putting in formula .....  $0.83*0.17/0.05*0.05 = 56.44$

## **6) variables**

- 1. Date of survey**
- 2. Name of hospital**
- 3. Name of patient**
- 4. Name of department**
- 5. Age of patient**
- 6. Gender (M/F)**
- 7. Socio economic status of patient**
- 8. Distance of hospital from home**
- 9. Date of admission in the hospital (dd/mm/yy)**
- 10. Diagnosis at the time of admission**
- 11. Previous surgical history**

7) Data collection tools and techniques - early identification of infection, comparability with other available data, feedback to clinicians, and identification of factors that contribute to infection & questionnaire .

8) Data analysis - interpretation of hospital infection surveillance data .

1. BLK HOSPITAL contributing data used in this report
2. Distribution of nosocomial infection rates in obs and paedia department of hospital.
3. Common pathogens of nosocomial infections for patients

## **LIMITATIONS OF THE STUDY:**

- **Sample size** - As our sample size is too small, it will be difficult to find significant relationships from the data, as statistical tests normally require a larger sample size to ensure a representative distribution of the population and to be considered representative of groups of people to whom results will be generalized or transferred.
- **Limited Time:** As I have LESS days for research so the chances of bias are more .

## **( Research questions )**

**Informed consent :**

**My name is shubham et al .(contact no : +919811575256) and i am a graduate student at IIHMR DELHI. I am inviting you to participate ina research study. Involvement in the study is voluntary , so you may choose to participate or not . i am going to explain the study to you . please feel free to ask any question related to research. I will explain you as much as i can as i am interested in learning more about nosocomial infection . you will be asked to fill a questioner given below . this will approximately 20 minutes of your time . all information will be kept anonymous and confidential. The purpose of this questionnaire is to find out the reality of nosocomial infection in hospitals of new delhi . this survey is anonymous , so please answeare truthfully and accurately as possible . we will not provide any incentive /compensation/ in any form for your time spent in this survey,**

**Thankyou •**

**Signature/Thumb impression of respondent**

.....

**signature of interviewer**

.....

- 1- Name of the patient ?
- 2 - Sex & Age of the patient ?
- 3- Name of the hospital in which you are admitted?
- 4- Name of the department in which you are admitted?
- 5 -How many patients are lying on single bed?  
a) one                      b) two              c) more than two
- 6-Hospital staff use double gloves for HIV and Hepatitis B patients?  
a) YES                                      b) NO
- 7- Isolation of T.B ,HIV, Hepatitis B Patients is done in this hospital?  
a) YES                                      b) NO
- 8- Proper sanitation techniques are used in this hospital?  
a) YES                                      b) NO
- 9-Proper hand wash techniques is used by wardboys and wardayas?  
a) YES                                      b) NO
- 10-Bedsheet and pillow covers are changed daily in this hosp  
a ) DAILY  
b) ALTERNATE DAY              c)NOTCHANGE
- 11-The food served in this hospital is properly and hygienically cooked?  
a) YES                                      b) NO

## REFERENCE

- 1.DAVIDSON'S PRINCIPLES & PRACTICE OF MEDICINE
- 2.JOURNALS AND RESEARCH PAPERS .
- 3 HARRISON 6<sup>th</sup> EDITION ( BOOK OF MEDICINE

## **.....REVIEW OF QUESTIONNAIRE.....**

**NUMBER OF PATIENTS SURVEYED IN NEW DELHI HOSPITAL 100 PATIENTS . OUT OF 100 ONLY 80 SAID YES THAT THE HOSPITAL STAFF USE DOUBLE GLOVES WHILE ATTENDING HIV &HEP. B PATIENTS . ONLY 90 PT. SAID YES THAT ISOLATION OF HIV & HEP. B, T.B PT. IS DONE IN THIS HOSPITAL . ONLY 70 PT. SAID THAT PROPER STERILIZATION TECHNIQUE IS USED IN THIS HOSPITAL . ONLY 25 PT. KNOWS ABOUT THE PROPER HANDWASH TECHNIQUE OUT OF 100. ONLY 60 PT. SAID THAT FOOD SERVED IN THE HOSPITAL IS HYGIENICALLY SERVED AND COOKED**

## **CONCLUSION AFTER QUESTIONNAIRE**

**NUMBER OF PATIENTS SURVEYED IN NEW DELHI HOSPITAL 100 PATIENTS . OUT OF 100 ONLY 80 SAID YES THAT THE HOSPITAL STAFF USE DOUBLE GLOVES WHILE ATTENDING HIV &HEP. B PATIENTS . ONLY 90 PT. SAID YES THAT ISOLATION OF HIV & HEP. B, T.B PT. IS DONE IN THIS HOSPITAL . ONLY 70 PT. SAID THAT PROPER STERILIZATION TECHNIQUE IS USED IN THIS HOSPITAL . ONLY 25 PT. KNOWS ABOUT THE PROPER HANDWASH TECHNIQUE OUT OF 100. ONLY 60 PT. SAID THAT FOOD SERVED IN THE HOSPITAL IS HYGIENICALLY SERVED AND COOKED**



