

**Summer Placement  
in  
Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, Uttar Pradesh  
(April 1 to May 31st, 2015)**

**A Report**

**By  
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**MBA Hospital and Health Management**

**2014-2016**

  
**Institute of Health Management Research, Jaipur**

## **ACKNOWLEDGEMENT**

I would like to express my gratitude to those who have helped me to turn this project into reality. Firstly I would thank **Prof. Hem Chandra**, Head Department Of Hospital Administration, S.G.P.G.I.M.S ,Lucknow and wish to express my earnest gratitude for his constant encouragement and support throughout the study .I thank him for the knowledge and guidance he conferred upon me which not only made the study successful but will enlighten me always as I move forward in my career .I am thankful to **Prof.R.K Choudhary**, Head Department Of Transfusion Medicine and **Dr.Rahul Katharia** ,Associate Professor In the Department of Transfusion Medicine ,for their consent, valuable suggestions and rectifying my errors during the period of study

I wish to express my sincere thanks to **Dr. Harshvardhan Singh**, Assistant Professor who took classes in ‘Research Methodology’ to make my concepts clear on the topic of my study. I also wish to express my profound gratitude to **Dr. Parmeshwar Kumar**, Assistant Professor for his support and guidance, also his lectures conducted on Biostatistics and Epidemiology were of great value for my study.

Interaction with students of Diploma in hospital Administration programme S.G.P.G.I.M.S,Lucknow Dr Faisal Nafees ,Dr .Darakshan Parveen ,Dr.Vandana Mourya who assisted me in throughout the study period also the group experience was pleasurable for me. I thank the management trainees Dr. Rabiya Ahmad(TISS,Mumbai) and Mansi Soni(IIHMR,Delhi) for their encouragement and valuable advices.

I am very grateful to Institute Of Health and Hospital Administration (IIHMR),Jaipur, **Dr .S.D .Gupta**(Director),**Dr. Ashok Kaushik**(Dean Academics and student affairs) and my mentor **Barun Kanjilal** (Prof.Health Economics) who supported my decision to join such an esteemed organization SGPGIMS, Lucknow to work on this study project. This memorable experience of summer training will always be cherished in days to come.

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**THE SANJAY GANDHI POST GRADUATE INSTITUTE OF MEDICAL  
SCIENCES, LUCKNOW, UTTAR PRADESH**



**INSTITUTE OF HEALTH  
MANAGEMENT RESEARCH**

(WHO Collaborating Centre for District Health System Based on Primary Health Care)



**CERTIFICATE**

This is to certify that the project work titled 'An Audit Of Donors Perception About The Blood Collection Process In A Tertiary Care Health Institute' has been done entirely and submitted by, Priyanka Shukla, a student of Masters Of Business Administration in Hospital and Health Management-19 th Batch from Institute Of Health Management and Research, Jaipur.

The study project was prepared in the internship period from April 1 ,2015 to May 31,2015 at Sanjay Gandhi Post Graduate Institute Of Medical Sciences, Lucknow, Uttar Pradesh under my guidance and supervision. This is her original work .

I wish her all success for her future endeavors.

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Dt. 31-05-2015

### CERTIFICATE

This is to certify that the project study entitled "**An Audit of Donor's Perception about the Blood Collection Process in a Tertiary Care Health Institute**" was carried out by Dr. Priyanka Shukla, MBA student, IIHMR, Jaipur, under our supervision and guidance at Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow from 01-04-2015 to 31-05-2015. This is further to certify that this is an original work of the student and has not been submitted anywhere before.

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**TABLE OF CONTENTS**

| S.NO | TOPIC                                                                                                                              | PAGE NUMBER |
|------|------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 1.   | Abbreviations                                                                                                                      | 5           |
| 2.   | Observational Learning-Section A –<br><br>1.Introduction and Organization<br>Profile/Specific Objective                            | 6-19        |
| 3    | 2.Mode Of Data Collection                                                                                                          | 19          |
| 4    | 3.Study of various Departments and Services<br>of the Organization/Analysis/Factors<br>affecting the functioning Of the Department | 20-55       |
| 5    | 4.Conclusive<br>learning/Limitations/Suggestions for<br>improvement                                                                | 56-58       |
| 6    | Section B –Project                                                                                                                 | 60-90       |
| 7    | References                                                                                                                         | 91          |
| 8    | Annexure                                                                                                                           | 92-98       |

**ACRONYMS/ABBREVIATIONS:**

- S.G.P.G.I-SANJAY GANDHI POST GRADUATE INSTITUTE OF MEDICAL SCIENCES
- WHO-World Health Organization
- D.H.A-Diploma in Hospital Administration
- PMSSY-Prime Minister Swasthya Yojna
- CME PROGRAMME- Continuous Medical Education
- IGNOU-Indira Gandhi National Open University
- OPD-Outpatient Department
- O.T- Operation Theatre
- IPD-Inpatient department
- MRD- Medical Records Department
- CCTV-Closed Circuit Television
- PET-Positron Emission Tomography
- CSSD-Central Sterile Services Department
- CT Scan-Computed Tomography Scan
- CAT Scan-Computerized Axial Tomography
- MRI-Magnetic Resonance Imaging
- CATH LAB-Cardiac Catheterization Laboratory
- H.R.F-Hospital Revolving Fund
- I.R.F-Investigation Revolving Fund
- B.M.T.U-Bone Marrow Transplant Unit
- K.T.U-Kidney Transplant Unit
- C.V.T.S-Cardio Vascular And Thoracic Surgery
- M.I.C.U-Medical Intensive Care Unit
- DEP-Departments
- BDQ-Blood Donor Questionnaire
- HIS-Hospital Information System
- BMW-Bio-Medical Waste Management
- IEC-Information Education Communication

**SUMMER TRAINING REPORT**

**SECTION A**

**“HOSPITAL ORIENTATION  
&  
DEPARTMENTAL STUDY”**

## INTRODUCTION

### **Section1. Background of the Sanjay Gandhi Post Graduate Institute Of Medical Sciences**

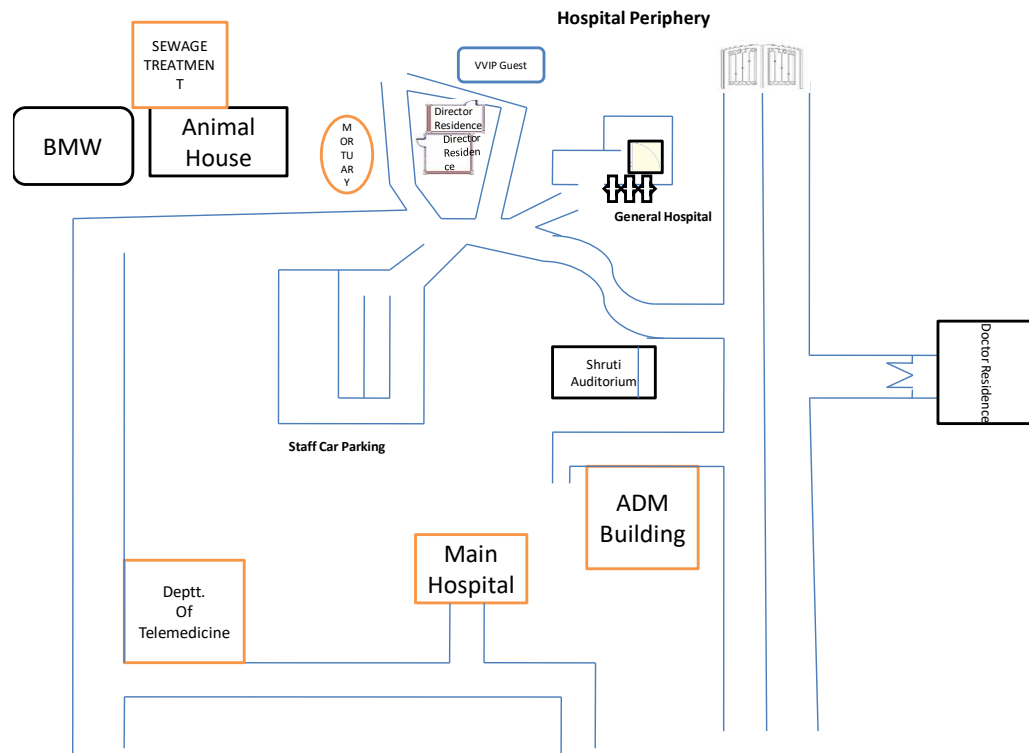
“SGPGIMS” was established by Act Legislation, Uttar Pradesh, India in the year 1983 to create a center of excellence for medical care, education and research of high order. It is chartered to function as university under state Act. The institute aims to provide super specialty medical care, available only at few centers in the country and nowhere else in the state of UP. It was developed over an area of 750 acres of land on Raebareli Road, Lucknow.

The concept of establishing a super medical institute at Lucknow was conceived in the early 1980s. His Excellency Sri Neelam Sanjeev Reddy, the then president of India laid the foundation stone of the institute.

The institute is the first and only government medical institute in India. The transformation of the institute over the 6 decades has been phenomenal. The institute has well equipped hospital rooms, state-of-art departments and technologically advanced systems are all backed by the expertise and reputation of over consultancy, resident doctors, supported by large nursing, paramedical and technical staff. S.G.P.G.I.M.S has been providing super specialty training in renal sciences, Neurosciences Cardiac sciences, Gastroenterology, Endocrinology, Genetics and Immunology since long. Recently, DM courses have been started in Hematology and Critical care Medicine. In addition, there are Departments of Pathology, Microbiology, Radio Diagnosis, Nuclear Medicine, Radiotherapy, Anesthesiology and Transfusion Medicine to provide support to all super specialty services. The hospital works as a referral hospital and endeavors to work on an appointment system.

Most of the patients are required to bring referral consents .It is fortunate to in receiving a grant aid from the Government Of Japan with the help of Central government of India, for its equipment needs .A long term technical cooperation with the Nagoya University School of Medicine (NUSM) under the Japan International Cooperation Agency(JICA)for transfer of skills to ensure optimal utilization of equipment’s under the grant in aid ,resulting in visits of a large number of faculty members and other staff between the two institutions .The hospital has more than 200 faculty members in 31 departments. Year on

year, the hospital is seeing a growing number of new patients and the currently the annual registration exceed 85,000 while follow 8000 major surgical procedures are up visits exceed 300,000 and indoor admissions exceed 40,000 annually in its 22 operation theatres, over.



**Figure 1:** The above figure is a representation of the sectional layout of the hospital

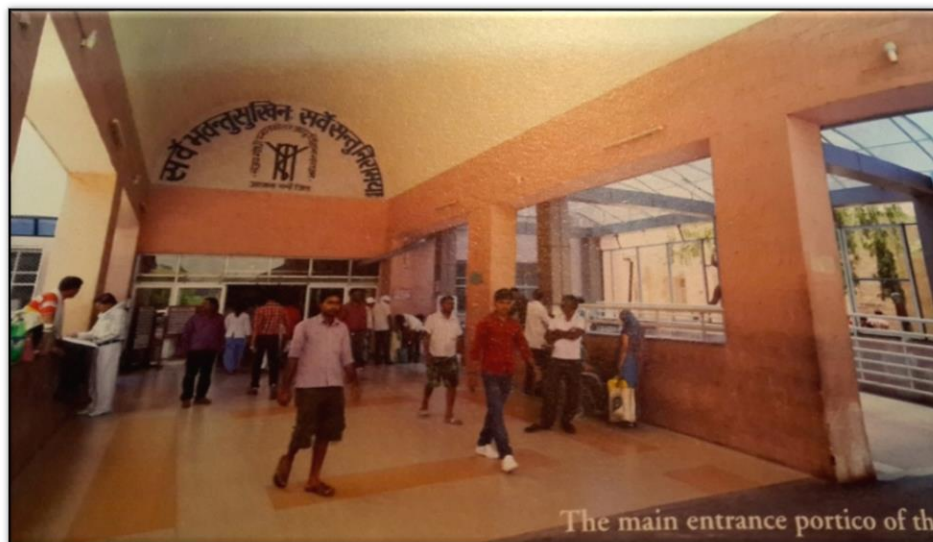


Image of the main OPD entrance of the hospital premises



**FIGURE 2: the above figure is the LOGO of the hospital SGPGIMS**

Three pillars represent “TRIPOD OF SGPGIMS”

- Patient care
- Teaching and training
- Research

The Span represents the “**FLIGHT OF SEA GULL**”

(The sourcing up the goal)

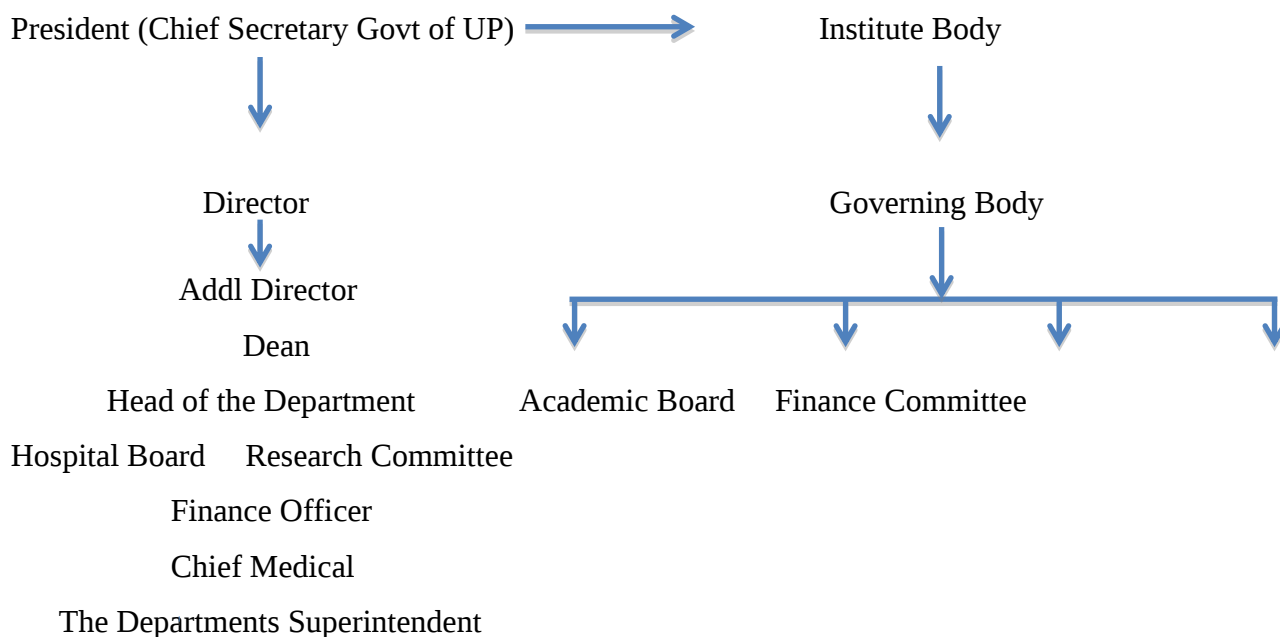
The Snake represent the “**SNAKE HYGIENE**”

(Patanjali of Hindus)

The overall shape represents “**BODH BRIKSHA**” (The tree of Knowledge)

## ORGANIZATIONAL STRUCTURE OF THE HOSPITAL

The organizational structure of the tertiary care health institute is depicted by an **arrow** representation:-



### Bed strength:

|                                              |
|----------------------------------------------|
| General Hospital: 25                         |
| Main Hospital General beds in the wards: 593 |
| Private beds in the ward: 108                |
| PMMSY Block-19                               |
| ICU beds: 108                                |
| Floating beds: 113                           |
| Total:1003beds                               |

**Table 1: A representation of the total bed strength of the hospital**

### **Objectives of SGPGIMS:**

- To create a centre of excellence for providing medical care, education and research facilities of high order in the field of medical sciences in the existing super specialties, as may emerge in future, including continuing medical education.
- To develop patterns of teaching in postgraduate's medical education in super specialties, so as to set a high standards of medical education.
- To provide for training in paramedical and allied fields, particularly in relation to super specialties.

### **Degree/certificate offered:**

- DM
- M.CH
- M.D
- PNCC
- PDCC(Post doctoral certificate course)
- Diploma in Hospital Administration
- Ph d
- Diploma in nursing informatics
- Diploma in hospital information system
- Diploma in telemedicine
- Diploma in public health information system
- Diploma in library information system

### **Treatment Charges:**

- Registration Charges: Rs.250
- Renewal fees(annual):Rs.100
- Bed charges-  
 -Private:Rs.1000/bed/day  
 (Costing approx-Rs.2800bed/day)

General-Rs.250 bed/day

(Costing approx-Rs.2400 bed/day)

Dialysis charges-Rs 1500

Charges for critical care unit patients-Rs 2000 bed/day

- Charges of surgery, consumable, surgical medicine extra.

**Outsourcing of the Services (for containment, cost effectiveness and efficiency):**

The following services are outsourced by the institute:

**Services:**

- Laundry
- Kitchen
- Security
- Sanitation
- Manpower
- Patient helper
- Nurses
- Medical Gases
- Air conditioning
- MRI
- Ultrasound
- G.I.Endoscopes
- Lithotripter
- External Transportation

**Public Facilities:**

- Patient Relative Accommodation and Rogi Vishramalaya
- Canteen
- ATM facility
- Payments made by credit cards
- External and Internal Transportation
- Community center has daily grocery shops, bakery, laundry etc.

- Free bus service from main gate to OPD to and fro.
- Educational programmed
- Public Relation Counter for help and assistance.
- Milk bar, coffee shops in and around the public waiting area.
- Railway reservation center established.
- Wards are centrally air conditioned.
- Admitted patient receives their diet without, any extra payment.

#### **Peculiarities Of The Institute:-**

- The first public sector fully tertiary care (super specialties) Hospital in India.
- The first public sector fully computerized Hospital Information System (HIS) run hospital in India.
- The first public sector hospital of U.P started out sourcing of the services.
- The first hospital of U.P developed kidney, liver, and bone marrow transplantation.
- The first medical institute of U.P who acquired professional Hospital Administrator.
- The first public sector hospital developed equity in the treatment.

#### **MILESTONE IN DEVELOPMENT OF SGPGIMS**

|             |                                                                                       |
|-------------|---------------------------------------------------------------------------------------|
| <b>1980</b> | Foundation stone laid by Dr. Neelam Sanjeeva Reddy, the then, the president of India. |
| <b>1982</b> | Dr. B. C. Joshi appointed as Project Director.                                        |
| <b>1983</b> | SGPGIMS established by act of Uttar Pradesh State Legislature.                        |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1987</b> | <ol style="list-style-type: none"> <li>1. The government of Japan supported the institute with grant-in-aid of 3.32 billion Yen.</li> <li>2. Outpatient and inpatient services start in the general hospital.</li> <li>3. Fist surgery (Post-partum ligation) performed in the general hospital.</li> </ol>                                                                                                         |
| <b>1988</b> | First batch of DM, M Chand P.H.D student joined.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>1989</b> | First Renal transplant was performed.                                                                                                                                                                                                                                                                                                                                                                               |
| <b>1991</b> | <ol style="list-style-type: none"> <li>1. First batch of DM and M.Ch students completed training</li> <li>2. M.Ch (Surgical Gastroenterology) course, at a national level started for the first time in India.</li> <li>3. Molecular endocrinology laboratory started.</li> <li>4. Cerebro vascular studies with HEADTOME started for the first time in India MRI was installed in Radiology department.</li> </ol> |
| <b>1992</b> | Plasma aphaeresis in Transfusion Medicine department was started                                                                                                                                                                                                                                                                                                                                                    |
| <b>1993</b> | <ol style="list-style-type: none"> <li>1. New operation theatre complex started functioning</li> <li>2. Surgical intensive care unit was made operational</li> <li>3. Automated rapid diagnosis system for bacterial infection started for the first time in India.</li> </ol>                                                                                                                                      |
| <b>1994</b> | <ol style="list-style-type: none"> <li>1. Intra operative ultra-sonography in endocrine surgery started from the first time in India.</li> <li>2. Scanning and transmission electron microscopes become functional.</li> <li>3. Coil occlusion of patent ducts arteriosus performed for the first time in India</li> <li>4. First convocation and first institute foundation day</li> </ol>                         |
| <b>1995</b> | Platelets aphaeresis in Transfusions Medicine department was started                                                                                                                                                                                                                                                                                                                                                |
| <b>1997</b> | <ol style="list-style-type: none"> <li>1. Computerized hospital information center developed</li> </ol>                                                                                                                                                                                                                                                                                                             |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | 2. Spiral CT was installed Hospital Revolving Fund was established.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>2001</b> | Shruti auditorium in the campus was commissioned (capacity -750 seats)                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>2003</b> | First Liver Transplant done in public sector in India.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>2004</b> | <ol style="list-style-type: none"> <li>1. The institute became the first centre in the world to apply an innovation in ross procedure .Tissue of a cow was used to correct a defective aortic valve.</li> <li>2. They took the lead in the country in adopting information technology in its routine activity. First public sector institute to adopt HIS and telemedicine.</li> <li>3. A newly constructed 17-bedded block for the emergency services was commissioned. Earlier it was managed in one of the ward.</li> </ol> |
| <b>2005</b> | <ol style="list-style-type: none"> <li>1. A new diagnostic block for various laboratory oriented department was established.</li> <li>2. National AIDS Control Organization established voluntary counseling and diagnostic center in OPD.</li> </ol>                                                                                                                                                                                                                                                                          |
| <b>2006</b> | School of Telemedicine and Biomedical Informatics established in the Institute                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>2007</b> | <ol style="list-style-type: none"> <li>1. Was declared by the national center for resource development in Telemedicine by Ministry of Information and communication.</li> <li>2. College of nursing was established.</li> <li>3. A separate Pediatric Gastroenterology ward was established.</li> </ol>                                                                                                                                                                                                                        |
| <b>2008</b> | <ol style="list-style-type: none"> <li>1. Foundation stone and building construction of a new 150 bedded hospital under Prime Minister Swasthya Yojana (PMSSY) started.</li> <li>2. Academic department of Hospital Administration was established and the department has been started Diploma in Hospital Administration in which 09 nos. candidates have been selected.</li> </ol>                                                                                                                                           |
| <b>2012</b> | <p>Department of Transfusion Medicine received Blood Mobile Van from National AIDS Control Organization, New Delhi.</p> <p>Department of microbiology installed a containerized BSL-3 Lab</p>                                                                                                                                                                                                                                                                                                                                  |

|             |                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2013</b> | <ul style="list-style-type: none"> <li>• Pneumatic shuttle system was installed to facilitate the seamless transportation of clinical samples within the departments of the hospital.</li> <li>• For diagnosis, staging and monitoring of patients with cancer, the department of Nuclear medicine was added with the installation of PET-CT scanner.</li> </ul> |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Table 2: Representation of milestone in development of the hospital**

**MANPOWER /REGULAR STAFF**

The manpower of the institute can be divided into 3 categories

- Faculty members and residents (including DM/M.Ch/MD students & hospital residents)
- Nurses and technicians, administrative personnel. Average manpower need of specialized medical centre for all categories of employees is considered to be 6 to 7 persons per bed.

|   |                  |      |
|---|------------------|------|
| 1 | FACULTY          | >160 |
| 2 | SENIOR RESIDENTS | >250 |
| 3 | NURSES           | >750 |
| 4 | TECHNICIANS      | >200 |
| 5 | OFFICERS         | >70  |
| 6 | OTHER EMPLOYEE   | >700 |

**Table 3: Representation of the approximate manpower and regular staff of the hospital**

## TECHNOLOGY

About the state-of –the –art technology of the institute:

**For the over 25 glorious years, SGPGI has always been a leader in adopting the latest technologies in healthcare delivery to continuously enhance patient services.**

Being a super specialty hospital, it has several unique features. The **Renal Science (Department of urology and nephrology)** perform one of the largest numbers of renal transplants in the public sector in India. The department of **Nephrology** has the first of its kind interventional and intensive care nephrology unit. The department of nephrology runs a unique neuro intensive ICU in their inpatient wards with minimal additional infrastructure and the patient pay nominal general bed charges only.

This is blessing for the numerous patients who need assisted ventilation due to conditions causing paralysis of the respiratory muscles or coma .The department of **Cardiology** has a state-of-the-art catheterization laboratory for cardiac intervention.

The Department of **Hematology** and bone-marrow-transplant performs autologous and allogenic bone-marrow-transplants, curing many patients who have hematological disorder and caters to the needs of lymphoma, leukaemia and myeloma patients. The department of **Endocrine surgery** performs vedioscopic assisted thymectomy procedures and complex thyroid surgeries along with conservation of breasts w hen afflicted with cancer in the early stages. The department of **Gastroenterology** is equipped with capsule endoscopy, guts manometry and performs complex interventional procedures.

The department of **surgical gastroenterology** performs complex procedures, particularly related to iatrogenic injuries to the bile passages and also liver transplants. The department of **Genetics** caters to needs of patient with hemophilia and assessment of rare genetic disorders. The department of Radio **Diagnosis** offers the expertise for interventional neuro radiology apart from full range of diagnostic test. The department of **Nuclear medicine** has a PET-CT scanner.

The department of Radiotherapy offers clinical oncology services for most malignancies and conformal and intensity modulated radiotherapy with image guidance is the only public sector facility in the state of UP. A well equipped **ophthalmology** department is

offering treatment for both anterior segment and complex vitreoretinal problems having acquired state-of-the-art equipment recently.

The department of **Pediatric Gastroenterology** has developed new diagnostic tests for children with suspected galactosemia. The department of **Plastic surgery** offers microvascular, micro neural and reconstructive surgeries.

The department of **pulmonary** medicine played a lead role in the recent H1N1 infected patients admitted to this hospital. Under its **Telemedicine** program hospital provides Tele-consultation in scheduled manner to 52 remote partners. The hospital has a HRF (Hospital revolving fund), where subsidized medicine through competitive bidding are provided to patients at their bedside.

The hospital aims to be responsive to the needs of the patients through a very proactive Public Relations Cell which is striving to ease the stress of patients visiting this hospital.

### **FUTURE PLANS OF THE HOSPITAL**

SGPGIMS is poised for a quantum leap which aims to bring in not only the best clinical and non clinical talent but also ultra modern technology equipment and technology enabling delivery of the highest standards of healthcare. The following super specialties /departments in the next five years:

- Advanced Ophthalmic Centre
- Trauma Center
- Emergency Medicine Department
- Robotic and Minimally Invasive Surgery including micro-robot
- Advanced renal and dialysis Centre
- Liver transplantation Centre
- Comprehensive Cancer Care Center
- Radiology-Nuclear Medicine MR-PET centre.

#### **New Academics Courses to Be Started:**

- M.D(Hospital Administration)

- PMCC Programs: In Materials Management
- Bio-medical Waste Management

**Department aims to establish, through suitable statutory process:**

- Patient Safety Division/Cell
- Human Resource Development Division/Cell

**Short Comings of the Institute:**

- Far from the city and not well connected.
- Distance between highway and hospital is very large.
- Emergency services are having limited facilities.
- OPD is overcrowded.
- Behaviour of the available manpower.
- Wheelchairs and stretchers
- Professional liability.
- Corridors are real bottleneck

### **Section 2.Mode of Data Collection:**

It is by qualitative approach by non-participant and participant observations. Information was collected by observing the hospital workings round the clock, also rounds for educative learning for management trainees arranged by Department Of Hospital Administration were sources of information.

Information were also collected by the various newsletters, workshops, classes held daily in S.G.P.G.I.M.S. Clerks, coordinators, officers of various departments provided the needed information. The finding and observations were drawn and recommendations made for improvement in the facilities

### **SECTION 3: AN OVERVIEW OF THE VARIOUS DEPARTMENTS AND SERVICES AT SGPGMIS,LUCKNOW**

#### **1. Department Of Hospital Administration**



**Image of the logo of SGPGIMS in the department of hospital administration**

The role of the hospital administration is increasing day by day for increasing demand in healthcare. Patient satisfaction, cost containment, quality medical care are few among an array of the output from hospital delivery system which can be achieved by using the management concept and techniques through trained and qualified hospital administrators. The academic department was established in 2008. It has full time diploma course in Hospital administration and intends to start M.D in hospital administration soon.

Apart from core administration, the department is dedicated to teaching, training and research in all the issues that directly or remotely relate to the hospital management and administration. It is also actively involved in organizing training programs and seminars for central government as well as state government health services officers on various aspects of hospital administration and patient care management.

So far 30 students have been enrolled in DHA. It is also the program study centre for P.G Diploma in Hospital and Health management run by IGNOU. Till date 350 students have been enrolled and educated by the department, it has the credit of bagging four gold medals out of 12 convocations held by IGNOU. There are more than 100 publications, 125 teaching/training programs, 10 awards under the name of the department so far. The department is located in the A block of hospital building to begin with further an additional floor has been constructed in the newly constructed technology building, located next to the college of Nursing in the institute premises. The department has a collection of 100 standard books in subject of Management Hospital administration Finance, Accountancy, Economics, Public Health, Communication, Marketing, Nursing Research Methodology, Law, Planning etc.

## **2. PUBLIC RELATIONS DEPARTMENT**

Patients should be contact at PR counter when they reach at the main hospital building. PR Counter is located on the right side, at the entrance lobby of the main hospital building .

PR STAFF: Public Relations team at SGPGIMS consists of:

- Senior Public Relation Officer (SPRO)-1
- Public Relation Officer (PRO)-2
- Assistant Public Relation Officer (APRO)-4
- Junior Receptionist Officer (JRO)-6
- Receptionist-13 to 16

The team works in 3 shifts. The APRO works in general shift -9.30 to 5 pm. Patient may be received the following information from PR Counter:-

- Information related to different department, staff and its services
- Information related to registration procedure
- Information relation to consultancy procedure
- Information related to OPD schedule and working services
- Information related to emergency services and registration services

- Internal Transport
- Ambulance reception
- General Enquiry

### 3. OUT PATIENT DEPARTMENT



**Image of the OPD hall entrance and value added services (atm,tea stall )of the hospital**

**Location-** The Outpatient services of the hospital are located on the ground floor of the S.G.P.G.I.MS and are decentralized. It witnesses a average turnout of patient of new and old patients. and some specialties are in PMSSY block. Each OPD has its own way of dealing with patient's .In some OPDs the patients are called by their names and in some they are issued tokens and are alerted by display board for their turn. All patients file are distributed among the senior residents and consultants. Each department has separate medical, therapeutic and diagnostic unit as well as procedure rooms. The medical social workers are present in the OPD timings to guide the patients to the consultation chambers. There are 9 registration counters in the main OPD building, 1 renewal counter and separate registration counter for some specialties in PMSSY Block.

#### **MAIN BUILDING OPD:**

Hall no 1: Endocrinology and Endocrine Surgery

Hall no 2: Immunology and Genetics

Hall no 3: Neurology and Neurosurgery

Hall no 4: Nephrology and Urology

Hall no 5: Cardiology and Cardio Vascular and Thoracic Surgery

Hall no 6: Gastroenterology and Gastro Surgery

Integrated Counseling and Testing Centre –OPD Entrance

**PMMSSY BLOCK:** A Separate OPD in PMMSSY Block for Following Specialties:

Hall no.1: Plastic and Re-constructive Surgery

Hall no.2: Pulmonary Medicine

Hall no3: Pediatrics Surgery

Hall no 4: Maternal and Reproductive Health

**Registration and Renewal:** Timings at P.R Counter-7.30 am to 12.30 pm for general patients.

Patient shows their referral slip from referring physician----If OPD of the concerned specialty is there in the present day a queue number is generated----patient sent to main registration hall with registration form----patient fills the form and submits at the registration counter----the registration fees is accepted at the cost specified the institute policy----a file is issued ,a laminated card with central registration no is generated-----the card is valid for one year after which a renewal is done .

**Patient movement flowchart in the outpatient services of the S.G.P.G.I.M.S,  
Lucknow**

The patient movement in the outpatient department is given by a arrow diagram:

Patient enters the hospital → Patient referral record is checked at the registration counter and patient is registered in the HIS system.



The patient is required to deposit money at the cash counter, a token number is provided to the patient,



On the required token number the patient's vitals are recorded, the patient meets the medical social worker of that OPD and forwards the file to the consultant on duty. The patient is registered for the consultant on duty in the respective specialty halls.



Based on the diagnosis by the consultant doctor of the patient, the patient is directed the following ways:

- For investigation to the investigation cash counter by a requisition slip from the OPD counter.
- For admission to the IPD ward based on the availability of beds.
- For follow up in future



Patient will exit the department and move as directed.

The same procedure is followed by the old patients the only difference they don't have to register themselves. Cash counter: The cash counter is located between the OPD hall no.3 and OPD hall no-5, after getting the investigation slip from the OPD counter the patient goes to the cash counter to submit the investigation fees and then he goes to the sample collection counter located in the same hall. The cash counter is open in morning from 8:00 am to 5:00 pm.

**Waiting Hall at Registration Counter:**

The waiting hall is connected to four entrances:

- Entrance of the main hospital
- Entrance for the OPD halls
- Entrance for the emergency and wards

**Waiting hall for OPD patients:** The 6 OPD waiting halls have sufficient space for chairs and couches for disabled and serious patients. Each OPD hall is having a sitting capacity for 100 patients and tier relatives and free space for movement of wheelchairs and stretchers. Each OPD hall has a reception counter, record room of the department. It is well aerated, sufficient, lighting, ventilated, ceiling and exhaust fan. It is facilitated by medical social worker, bay clerk, staff nurse, patient calling attendant and multipurpose attendant.

#### **4. EMERGENCY RECEIVING STATION**

SGPGIMS has a emergency receiving department. Way to reach the emergency station for the patient and relatives, from the OPD is well marked by a red line,. It is a specialized ward with a bed strength of 30 beds in ERS 1 and ERS 2 respectively.

The department serves as a separate entity with its own registration counter, cash counter investigations centre and HRF emergency store. If any emergency tests need to be done it is done in the STAT LAB. The emergency receiving station is 30 bedded, if the facility is not available then after receiving the initial life saving the patient is referred to KGMU and if the facility is available the patient is shifted to the wards or the ICU as situation may be. TRIAGE area of the emergency receiving station is well marked as:

Red i.e. critically ill patients

Yellow i.e. patients requiring attention

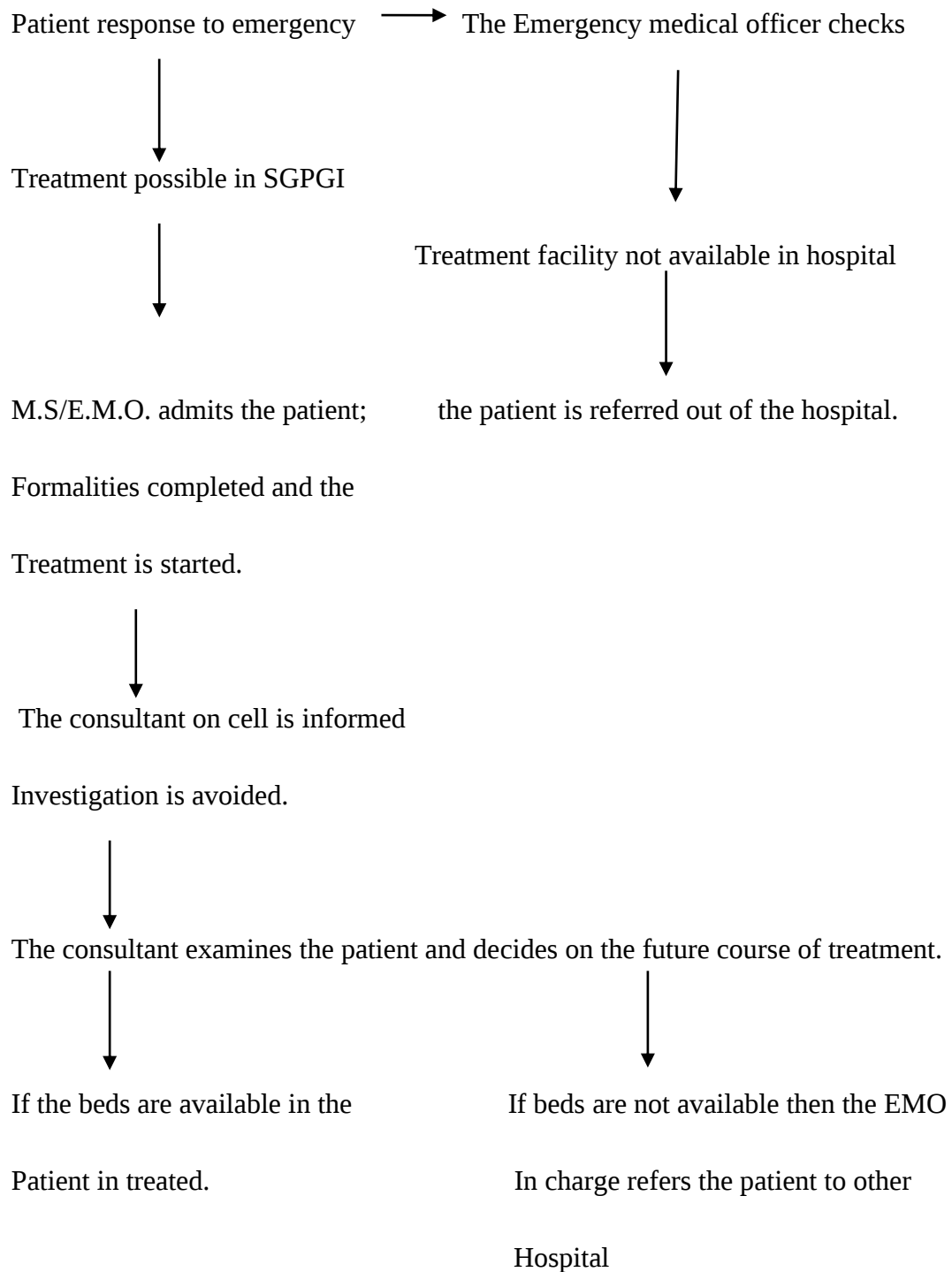
Green i.e. are kept in observation

A Crash Cart is available in the emergency which provides one place storage for all the emergency medication

**A red line from the outpatient department serves as a guide for the patient to reach the emergency.**

**Patient movement in Emergency Medical services:**

The patient movement in the emergency department is given by a arrow diagram:



## **ANALYSIS AND RECOMMENDATIONS**

- Area for triage is not well marked; a separate emergency receiving station is under construction.
- Medicine and surgery cases are more as compared to other specialty; hence the number of surgery and medicine residents can be increased and if that is not feasible, an orthopedics resident can be posted at casualty.
- The disaster store rooms are not equipped well and are presently being used for other purposes; hence adequate stock of equipments can be provided and the store room should be kept prepared for disaster management only.
- The department is heavily loaded, therefore, there is a need for more staff. At least there is a need for additional four doctors and three more nurses, which will decrease the work load on each nurse.

## **5. IN PATIENT DEPARTMENT**

**Location-**The S.G.P.G.I.M.S hospital, Lucknow, Uttar Pradesh has separate nine floors block for the patient wards called the G Block.

These wards have a decentralized system of cash counter and HRF.

## **SPECIALTIES IN G BLOCK IN MAIN BUILDING ARE:**

| जी-ब्लॉक (वार्ड ब्लॉक) |            |                         |                  |
|------------------------|------------|-------------------------|------------------|
| क्रम सं०               | तल संख्या  | ए-ब्लॉक                 | बी-ब्लॉक         |
| 0                      | भू तल      | इण्डो मेडिसिन           | इण्डो सर्जरी     |
| 1                      | प्रथम तल   | एम.आई.सी.यू.            | कार्डियोलॉजी     |
| 2                      | द्वितीय तल | रेडियोथेरेपी, जेनेटिक्स | सी.वी.टी.एस.     |
| 3                      | तृतीय तल   | नेफ्रोलॉजी              | नेफ्रोलॉजी       |
| 4                      | चतुर्थ तल  | यूरोलॉजी                | यूरोलॉजी         |
| 5                      | पंचम तल    | गैस्ट्रो मेडिसिन        | गैस्ट्रो मेडिसिन |
| 6                      | षष्ठम तल   | गैस्ट्रो सर्जरी         | गैस्ट्रो सर्जरी  |
| 7                      | सप्तम तल   | न्यूरो मेडिसिन          | न्यूरो मेडिसिन   |
| 8                      | अष्टम तल   | न्यूरो सर्जरी           | न्यूरो सर्जरी    |
| 9                      | नवम तल     | हेमेटोलॉजी, बी.एम.टी.   | इम्युनोलॉजी      |

**Image of the various specialties (floor wise) in the main hospital**

#### **The Department Comprises Of:**

- The head of the department
- Senior Consultants
- Junior Consultants

The nursing staff is comprised of

- Sister Incharge
- Head Nurses
- Junior Nurses

Overall there are 5-6 nurses per shift

The shift duties are as follows:

- 8am-2pm
- 2pm -8pm
- 8pm-8am

The patient is admitted from the OPD or after the operation. He/she is required to deposit the money on the cash counter. The medicines are procured from the HRF centre which is decentralized in the hospital.

**Admission procedure**-If the consultant feels that the patient is to be admitted, either for observation or some special procedure, he advises the patient to get admitted. Now, the patient is sent to the concerned ward, where the nursing unit receives the file.

All the 20 super specialties in the A and B block in G Block have 30 general beds and 6 private rooms, with provision of isolation beds in some specialties and critical care units.

Type of Ward: Rigs Type

General Ward Facilities:

- Nursing station
- Dirty utility room
- Ward store
- Sanitary

Layout of typical private room:

1 almirah, 1 sofa, 1 chair, telephone facility, 1 table, kitchen, separate toilet.

**Records maintained:**

The various records maintained in the In Patient Department are:

- Doctors Register
- Report Register (Total patient/discharge/diagnosis /bed. number mentioned)
- Blood Bank Register
- X ray Register
- Pathology Register
- Complaint Register
- Duties Handover Register
- Maintenance Register for equipments
- Linen Register
- Sister Incharge Register
- Loan Register
- CSSD order Register
- Diet Register
- Log Register for documents
- Death Register

- Discharge register
- Event Register
- Audit book

**The discharge process:**

Process Flow of the discharge process in the hospital is given below:

Patient is treated he /she is ready for discharge.



Doctor's requests discharge process to be initiated. Further follow up treatment and medication are advised. Discharge summary is received.



The formalities are completed. Relatives are asked to clear the remaining dues (if any). Avail a no dues certificate from the cash counter and HRF. Refund to be given if applicable



Patient relieved. Required to report to the OPD on desired date to the respective consultants for follow up.

**6. HANDLING OF MEDICO-LEGAL CASES**

Following cases are considered as medico-legal cases:

- Accident
- Poisoning
- Fracture
- Burn
- Injury

Any death or trauma, which may give rise suspicion of any foul play or injury of unnatural kind.

The medico –legal cases which are registered are reported by the emergency medical officer to the Public Relations Officer who furthers the case sheet to the police personnel.

. This is further entered to the complaint book maintained by the police personnel. In the mean time, resident doctors attend to the patient's medical condition. The patient is stabilized first and if there is any need, patient is shifted to the ICU, ICCU, MICU or any other specialty or super- specialty department required at that time. EMO holds the authority to send the patient to any of the department at time of emergency.

In case of death, the death is declared by the EMO or the resident doctor after following proper protocol. Death is recorded in the register by the duty nurse and death declaration certificate is given by the EMO which is again a triplicate copy. One copy goes to the mortuary attached with the case sheet, one goes to police for record and one copy stays in the book. The body is then shifted to mortuary till relatives or claimant arrives.

## **7. NURSING DEPARTMENT:**

The era of modern nursing emerged with Florence Nightingale. Nursing profession is considered a caring profession to begin with. Once upon a time it was thought to be an art and a vocation but at present scenario it is considered a scientific profession. Nursing care implies the care of the patient with regard to nursing need; with the ever increasing complexity and technicality in the medical sciences. In order to cope up with that nursing care is becoming more and more complex with its management services. It acts as a link between various clinical and nonclinical services and helps in co-ordination for hitch free functioning and delivering comprehensive health care to the patient and community.

WHO expert committee on nursing defines the nursing services as *“the part of the total health organization which aims to satisfy major objective of the nursing services is to provide prevention of disease and promotion of health.”*

**History:**

The nursing department existed since the beginning of the hospital, i.e. and the Nursing school started way back in the year. The first batch started with only 30 students. There has been increase in the number of seats since then to present 100 students each academic year.

**Objective:**

- To satisfy the nursing needs of the patients/community.
- To work and co-ordinate with the members of allied disciplines so that it helps in delivering a comprehensive patient care in the hospital.
- To conduct educational and training programs for the students and take part in research activities.

**Layout in hospital: Roles and responsibilities of sister in charge and ward nurse:**

- To ensure bed making and supervising the sweepers to maintain cleanliness
- To attend rounds with doctors, note the orders and arrange for shifting of patients if any referral needed.
- To indent and maintain adequate stock for various drugs, diet and various consumables.
- To maintain patient records via case sheet and admission-discharge register and produce the same to MRD, daily.
- To maintain stock ledgers.
- To arrange medical trolley and linen indent in the ward

- Every day taking over of the patients , case papers , pantry, laboratory,etc
- Sterilization of the Pharmacy items.
- Taking rounds with doctors and nursing superintendent.
- Writing indent, taking inventory, maintaining ledger.
- Maintaining proper disinfection and sterilization of equipments.
- Cleanliness of the patients, ward lavatory and pantry.
- Managing the ward by planning and organizing nursing care.
- Writing duties of the staff nurse, student nurse and male/female servants.
- Supervising their assignments and teaching them.
- Orientation of new staff/student nurse.
- Custody of dangerous drugs, record of their administration.
- Maintenance of stock registers
- Keeps a check on visitors attending the patients during visiting hours.
- Participation in staff education and staff meetings.
- Participation in professional activities.
- Waste material is separated in different containers. Infectious, non infectious and sharps are separated at source under their supervision.
- Efficient nursing care, personal comfort and toilet.
- Administration of drugs and treatment. Observation and recording of the data of the patient.
- Taking history of the patient.

- Proper advice and guidance to the patient's relatives

**Roles and responsibility of emergency/shift duty nurse in morning duty, evening duty, night duty:**

- Counting all patients and patient papers.
- Bed making male/female ward.
- Maintain patient's personal hygiene.
- Giving medicines to all the patients in time.
- Supervise the patient.
- Giving injections advised by the doctor.
- Maintaining vital signs.
- NOSIE charting.(should be done)
- Maintain daily routine of the patient.
- Encourage patients for doing various activities.
- Distribution of breakfast and diet.
- Giving health education to the patient's relatives.
- Supervise the servants for cleanliness of the ward.
- Taking admissions and giving discharge to the patients.
- Writing patients' orders in order book in night duty.
- Keeping account of injections in night duty.
- Maintain sleep records of the patient.
- Keeping patient Nil-by-Mouth overnight for ECT/Blood collection/any other procedure.
- Receive and maintain records for new admission and discharge.
- Administering medications to patients as per doctor's prescription.
- To write reports of patient in ward, blood sample collection after 11pm and early morning fasting blood sample or in case of emergency if doctors are not available, etc.
- To monitor patients diet, TPR, I/O chart and other vitals.
- To ensure, proper measures are being taken for bio medical waste disposal via color coding of the bags, segregation of various wastes, etc.

**Induction program for nursing staff**

- Introduction of new nurses to ward personnel including – supervisor, doctors and other health team members.
- Methods of assignment of patient care functional team.
- Outline of patient's visiting hours, serving meals, providing rest.
- Duties of non professional workers in relation to nurses' work such as carry diet tray, restrain the patient etc.
- Method of obtaining daily assignment, handing and taking over and recording and reporting SOPs of all wards.
- Tour of the ward to get a general idea of its arrangement.
- Location of articles which may be needed in emergency.
- Location of equipments which will be needed for giving morning care, treatment and medication.
- Orientation of ECT room and responsibility of nurse during ECT.
- Source of information such as procedure and ward policy book.
- The nurse should be urged to ask questions when necessary.

**Problems faced in nursing department**

- Resistance to change post from one department to other department
- Undesirable interference of union and union rivalry affects efficient functioning of the department.
- Shortage of nursing staffs added with absenteeism with heavy work load.
- Lack of accountability and responsibility.
- Communication barrier.

**8. OPERATION THEATRE DEPARTMENT:**

|          | <b>SPECIALITY</b>            | <b>NO.OF OTS</b> |
|----------|------------------------------|------------------|
| <b>1</b> | UROLOGY                      | 4                |
| <b>2</b> | SURGICAL<br>GASTEROENTROLOGY | 3                |
| <b>3</b> | C.V.T.S                      | 2                |
| <b>4</b> | ENDO SURGERY                 | 2                |
| <b>5</b> | E.N.T                        | 1                |
| <b>6</b> | NEURO SURGERY                | 2                |

**Table 4: Representation of the number of O.T's department wise in the hospital****Total No in Main Building: 14****General Hospital Has 3 OTS.**

PMSSY BLOCK: 1<sup>st</sup> floor-Maternal and Reproductive Health, Pediatric Surgery, Fetal Medicine, Emergency, Plastic Surgery O.T's

2<sup>nd</sup> floor – Department of Maternal and Child Health/Department of Neonatology/Sceptic Labour Room /labour delivery operation theatre for normal deliveries and emergency cases./N.S.T Room /Eclampsia Room

3<sup>rd</sup> floor-Acute Burns unit/Skin bank/Dressing Room for minor surgical procedures.

TOTAL IN PMSSY: 4 operation theatres are functional

OT DAYS: MONDAY TO FRIDAY

ZONING in O.T-

### **According to hygiene maintained in different zones**

- Dirty Zone-i.e. outside corridor, changing room etc.
- Clean Zone-i.e. store, scrub area, pre op room
- Aseptic Zone-i.e. operation theatre, sterile preparation.
- Fumigation, mopping and cleaning done every day in the morning and for infection control.
- Scrubbing station in every O.T for hand hygiene.
- **Staff of O.T: per O.T 6 staff that includes:**
- 1 Sister Incharge
- 1 OT Supervisor
- 1 OT Technician
- 1 Attendant
- 1 Safai Karamchari
- 1 Floor Nurse

### **Physical facilities: O.T complex in PMSSY block has:**

- Changing rooms for males and females
- Shoe removing area
- Doctors lounge
- Sister Incharge and nurses room
- Scrub room
- Diagnostic Room

### **Special features:**

- Operating Room Control Panel Present
- Seamless Design Of Operation Theatre
- Sensors On OT Doors And Hand Washing Areas
- Walled

### **Records maintained:**

The various records maintained through registers are:

- Doctors O.T .Record
- Nurses O.T .Record
- Histopathology Registers
- Indent Book
- H.R.F (O.T) Register etc.

## **9. INTENSIVE CARE UNIT**

The various intensive care units in the Main Hospital and PMMSY Block are:

- **ICU Complex In Main Hospital :**
- 1 B.M.T ICU
- 1 K.T .U I.C.U
- Critically Care Medicine Complex(CCM)
- 1 Neurology I.C.U
- 1 M.I.C.U
- 1 .C.V.T.S I.C.U
- **PMSSY Block-1** Neonatal I.C.U
- I Plastic Surgery And Burns I.C.U
- I Pulmonary Medicine I.C.U

### **Patient area: Isolation cubicles**

**Staff area:** Central Nursing station, with centralized monitoring system present, Doctors lounge.

### **Support area:**

- Clean and Dirty Utility room.
- Hand washing facilities
- Toilets
- Visitor lounge
- Equipment Room

- Medicine and emergency drug store.

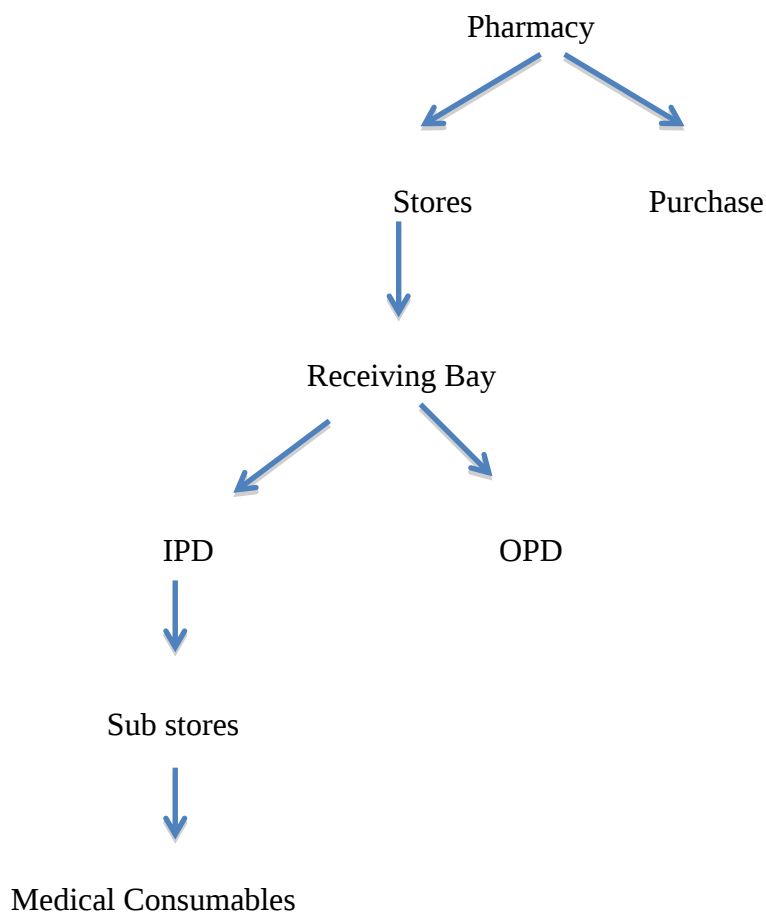
**Hemodialysis unit:**

- Total number of dialysis per day-67-70
- NO. of dialysis machines- 41 functional machines
- NO. Of Functional Beds-45

**Salient features:** - Isolation cubicles for patients present.

**10. PHARMACY**

Depiction of the process flow in the pharmacy department is:



## **11. INVESTIGATIONS**

In case of any investigation raised by the consultant, the bay clerk generates the requisition form at the OPD counter. After getting the requisition slip from the OPD counter the patient goes to the cash counter to submit the investigation fee and then to the sample collection counter..Patients can receive the investigation report from where the investigation has been done. Only the investigation report of blood, urine and stool can be received by the patient from those particular OPDs. Some investigation report can be received on same date and others after 24 hr/1 week or more depending on the investigation procedure.

## **12. DEPARTMENT OF BLOOD SAMPLE COLLECTION:**

Located at the ground floor, at the main entrance of hospital. Samples are collected and sent to the pathology department via the unique pneumatic shuttle system



**Image of the Pneumatic Shuttle System in the department of blood sample collection of the hospital**

### **13. DEPARTMENT OF CLINICAL PATHOLOGY SERVICES-**

It is equipped with Technicians 24 channel autoanalyser, 8 parameter blood cell analyzer and RIA facilities present in main building and PMSSY Block. The institute has installed Electron, Microscopy equipment. Specialized laboratory investigations in the field of endocrinology, genetics, and immunology are being provided by respective specialty departments.

- Stat Lab
- Ophthalmology Lab
- Stone Centre
- Manometry Lab
- Urology Lab

#### **14. RADIOLOGY AND IMAGING SERVICES**

The main hospital and the PMSSY block both are well equipped with latest radiology and imaging equipments.-

- CT SCAN
- X-RAY
- M.R.I
- ULTRASOUND
- CAT SCAN
- MAMMOGRAPHY
- C-ARM MACHINE
- PET SCAN
- BONE DENSITOMETRY

Department of Radio diatherapy is having cobalt plant and linear accelerator .Department of Radiotherapy is equipped with 3 Tesla MRI, whole body 64 slice CT Scan, computerized Radiography ,DSA and Automatic positioning GI table, bedsidess routine and mobile X ray equipments and ultrasounds.

#### **15. DEPARTMENT OF NUCLEAR MEDICINE**

**It is having SPECT and mobile Gamma Camera and PET-CT.**

#### **16. CATH LAB**

Located in the ground floor in the main hospital

##### **Layout of CATH lab:**

- PROCEDURE ROOMS-3(G PLUS LAB AND SIEMENS LAB)
- CONTROL ROOM-3
- POST CATH ROOM
- H.R.F STORE
- CLEAN UTILITY
- DIRTY UTILITY

- MALE /FEMALE CHANGING ROOMS
- DOCTORS CHAMBER
- RECORDS ROOM
- CEILING SUPPLY UNIT
- EQUIPMENTS-C-ARM ,DEFIBRILLATORS,EMERNGENCY CRASH CARTS,MEDICATION CARTS
- OPTICAL COHERANCE TOMOGRAPHY MACHINE,LV INJECTORS,MONITORS CONNECTED WITH THE CONTROL ROOM ETC,

### **ECHO LAB**

2 echo machines, 1 Trans esophageal echo machine

- **HOLTER LAB**
- **TREAD MILL**
- **TMT Test-Cardiac Stress Test**

**Salient feature- Public addressel is present in these labs to address the patients, sister incharges and technicians.**

## **17. SUPPORT SERVICES OF THE HOSPITAL**

The following are the support services of the hospital:

**1. CSSD (CENTRAL STERILE SUPPLY DEPARTMENT)** :It provides high quality support services to operating room another departments of hospital round the clock. Principle sterilization methods like steam under pressure, dry heat, ethylene oxide gas and hydrogen peroxide gas plasma are used in the sterilization unit to reduce risk of infection and safe use of medical devices for the patient care The sterile processing department re-processes about 2 lacks reusable and single use medical devices per annum .



**Image of the central sterile supply department of the hospital**

**2. LAUNDRY:** Laundry and Linen services play a great role with regard to patient and staff safety comfort aesthetics and infection control. It needs the clean fabric need and controls the hospital environment ,in house mechanized laundry assures quality processing and cleaning of 6 lacks pieces of different of different size of textile annually, which is delivered to entire hospital bed, body and operation theater linen used in the hospital are pure cotton fabric. Every patient care area has about 4-6 tier of linen has to be replaced every day.



**Image of the laundry services of the hospital**

4. **KITCHEN:** The hospital has a full-fledged centralized therapeutic kitchen services. Diets as per dietician's supervision and special feeds are prepared in the kitchen



**Image of the kitchen services at the hospital**

4. **BIOMEDICAL WASTE MANAGEMENT:** SGPGIMS is in tune with millennium development goal and BMW (management and handling) Rule 1998 has taken initiative

to safeguard the environmental health. With this goal, it has taken a volley of initiatives to safely collect, transport and disposes Bio-medical waste.



**Image of the bio-medical waste department (incinerator) of the hospital**

**5. EQUIPMENT REPAIR AND MENTANCE DEPARTMENT:** This department meets the maintenance requests of the institute like furniture, equipment maintenance etc. Preventive, emergency, routine, contract maintenance is done here.

#### **18. COMPLAIN AND GRIEVANCES:**

The institute has established a complain and grievances cell for patients and relatives at each floor in the main hospital. There are 10 boxes at each floor and the deputy medical superintendent reviews the complaints and discussions for suggestions in improvement are done in meetings done by the Department of Hospital Administration.

#### **19. INFORMATION TECHNOLOGY-HOSPITAL INFORMATION SYSTEM**

- The hospital is planning for improving its IT sector.
- There is no goof hospital information system connected with laboratory information system.
- They have no good HMIS.

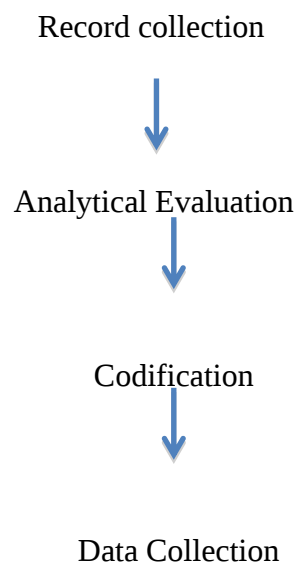
- The engineering department is handling only very minor issues related to IT.

### **19. THE MEDICAL RECORDS DEPARTMENT**

Situated at the back of registration counter in the OPD. Medical records of cases are kept for years and that of medico legal cases for year's .Each department in the OPD has also a separate medical records department. The PMMSY Block has a separate medical records department.

#### **PROCESS FLOW:**

The process flow in the medical records department is given below:



#### **Various records maintained are: -**

- IPD files dispatched register
- IPD files received register
- OPD files dispatched register
- Or their
- Birth records
- Death records

The department ensures maintenance of the health records of the hospital in an organized manner. The staff ensures the preservation, storage, confidentiality and retrieval of documents of the patients.

A new medical records department is currently under construction in the main building.

## **20. MANIFOLD SERVICES**

Centralized Medical Gas System for Supply of Medical Gases in All Wards, Operation Theatre and ICU. The liquid oxygen plant has the capacity of 9,000 to 10,000 liters of oxygen and is refilled as per the demand regularly (consumption of 2 tank per week). Appropriate pressures for oxygen, nitrous oxide, vacuum are maintained and any shortage of supply of medical gases is detected by pressure fluctuations by a alarm in the manifold room.

For laboratory procedures (carbon dioxide) and cryosurgery procedures a decentralized supply of gases is maintained.

Due to large requirement of medical gases especially oxygen a bank of 400-500 cylinders are maintained by the institute and the departments are indicated beforehand for planning of procedures as per the available cylinders.

In case of leakage of any medical gas in a ward the sister incharge on duty calls the manifold room and necessary action is taken.

MAINTENANCE (OUTSOURCED) BY-UNISSI INDIA

## **21. SAFETY AND SECURITY SERVICES:**

**FIRE SAFETY**-Signage's for fire exit, fire control panels and fire alarm are present in the hospital premises.

- Crowd management in OPD/ward and in other places in the hospital premises.
- Checking Vehicles (four wheeler) in & out of Hospital.
- Scrutinizing and giving permission for any function/event in hospital premises.
- Advising and motivating staff, patients and visitor to maintain discipline and cleanliness.

- Keeping records of vehicle, events, problems & disasters, discharged newborn, etc.
- Keeping surveillance, manually and with CCTV.
- Act promptly at times of disaster like fire, rain, destruction of property by mob, etc.
- AUTOMATIC SMOKE DETECTOR ALARM SYSTEM
- Emergency exits

### **How the hospital suffers loss**

- Embezzlement
- Pilferage
- Kickbacks and Collusion
- Equipment theft sometimes
- Personal property theft
- Fraud in Registers

### **Problems and obstacles**

- Casualty: many a times by standers get violent when a patient dies.
- Morcha issues
- Managing mob during daytime due to overcrowd.
- Fraudulent person
- Control over attainer/by stander movement as many a times they enter into ICCU, MICU, Post natal ward.
- Pick pocket near registration.
- Theft from department and doctors' room

- Identification and scrutinizing of non patient and non visitor traffic at the controlled gates is difficult.

## **22. INTERNAL TRAFFIC (MOVEMENT OF THE STAFF AND THE PATIENTS WITHIN THE HOSPITAL)**

Patients come to OPD block for registration at the ground floor. Then they visit various OPD for consultation and from there they come to pharmacy for medicines which is located at the ground floor of the same building. Central lab is located in the 1<sup>st</sup> floor of the same building, where the samples are collected and sent to the respective departments for testing. Some minor and routine tests can be done at central lab also.

- If patient requires admission they are send for admission in wards located in hospital and top floors of OPD building, depending upon their specialty required.
- Materials are supplied to stores, kitchen, CSSD, etc from the main gate of the hospital under due security clearance from the security office which is located in the ground floor of the OPD building.
- Employees and workers can use different gate on the other end of the hospital campus.

## **23. PATIENT WELFARE CELL**

Patient Welfare Cell provides the better in formation guidelines to the patient and their relatives about the services and facilities of the institute. It is run by the medical social workers. It supervises the facilities-

- REGISTRATION
- OPD
- MRD
- VIP GUEST HOUSE
- CAFETERIA
- FREE TRANSPORTATION

- INTERNAL AND EXTERNAL TRANSPORTATION

#### **24. THE HOSPITAL REVOLVING FUND (HRF) AND INVESTIGATION REVOLVING FUND (IRF):**

**Hospital revolving Fund** was established in the year 1997 ensures round the clock availability of quality drug and consumables at reasonable price. HRF procures quality items directly from the manufacturers and importers or their authorized distributors without compromising the rules laid down in the Institute purchase procedures. All internal transactions of HRF are computerized and accomplished through Hospital Information System (HIS). Bed side distribution of medicines to admitted patients is ensured through HRF couriers. All HRF facilities are open 24 hours a day, 365 days a year.

**IRF-** Investigation Revolving Fund was created in 2002 with a view to re-engineer the resource and procurement of all consumables required for patients tests and investigations in most efficient and cost effective manner on “principle of self sustainability” and installation of maintenance free equipment at no cost. It is aimed at improving the functional status of laboratories of the Institute. It is a departure from the traditional system to new system and has become the role model for other Government institutes and hospitals.

#### **25. COMMUNICATION DEPARTMENT**

##### **Telephone exchange:**

The institute has facilities has established the facility of CUG numbers which are given to each departments, residents, officers, employee, ward set for communication in SGPGIMS. Besides this there is a provision of landline phones given in each private room of the ward. The provision of internet via landline (ADSL) for residents and officers residing in the campus is also there.

##### **Department of telemedicine:**

The school of Telemedicine and Bioinformatics was established in the year 2006 with the funding support received from Government of Uttar Pradesh. All the activities like Tele education, Tele CME and Tele consultation etc, are held regularly in scheduled manner with 52 remote partners. Tele follow up services has been adopted by

departments of Immunology, Endocrine Surgery and Nuclear Medicine. Similarly Tele education has been already integrated in regular teaching program, by several departments. Till date total 2916 Tele education, 2376 Tele consultation, 1193 Tele follow up, 108 Tele CME and 134 Tele –CPC sessions were held through telemedicine network

## **26. DEPARTMENT OF BIOSTATISTICS AND HEALTH INFORMATICS**

The department is entrusted with the job of management of Health Information data on System (HIS) and patient care various servers in the institute. HIS is implemented since 1998. It was the first medical institute in the country to implement full functional Hospital Information System that computerized all patient care processes starting from registration of patient's admission, investigation, billing till discharge and follow up. It has about five lakhs patients' records in its database containing valuable clinical information to use for research, patient care and planning. The facilities in the existing system were accessible from local network within the institute campus and were not capable to handle image data such as X ray, CT scan, MRI etc.. The present system which is being implemented is fully web based and can be accessed using Wide Area Network (WAN) from anywhere with proper authorization and security.

## **27. AIR CONDITIONING SYSTEM**

The Air Conditioning plant and related systems are very good. Ventilation system includes air intake and outlet, air-filters on air – conditioner units.

- HEATING VENTILATION AIR CONDITIONING UNIT (HVAC) SYSTEM DESIGN for thermal comfort and acceptable indoor air quality in the hospital.
- AIR HANDLING UNIT (A.H.U) AND VENTILATION is present in Main Hospital and PMSSY Block.

## **28. PROVISION FOR VERTICAL MOBILITY (LIFTS)**

### **9 lifts in Main Building and 6 lifts in PMSSY Block.**

- Almost all the parts of the hospital have provision for vertical mobility.
- The lifts are with adequate carrying capacity.
- Due to huge patient overload the patients and relatives are unable to use the services sometimes
- In the OPD building both the operation and maintenance of lifts are outsourced.

## **29. AMBULANCE DEPARTMENT**

Total number of available ambulances: 7 Ambulances

The ambulance department of SGPGIMS hospital is very different from other hospitals. The hospital does not provide any emergency on-call ambulance service to the patients. The ambulance facility here refers to the movement within the hospital as well as outside the hospital but within the city. Since it's a tertiary care hospital catering to large number of patient and under the resource constraints it is assumed that patients have to reach hospital by using ambulance services provided by various providers. The patient to be shifted to another hospital within the city then the patient is charged based on rates per km as specified by the institute's policy. The patient attendants at the PR Counter places ambulance requirement. On the basis of the availability of the ambulance and that of the driver the ambulance is provided. There are no charges for the movement of the ambulance within hospital.. The hospital has provision for ambulance services to transfer patients within the hospital premises and to King George Medical College, Lucknow.

### **Hygiene and cleanliness maintained:**

- Mopping and sweeping done daily, in the hospital premises. Sweeping may be done number of times depending on the cleanliness of the floor.

- Bed linens are changed every day and linens and blankets are sent to the laundry every day.
- Scrubbing stations in departments for hand hygiene for doctors and nurses during surgical procedures.
- Proper hand washing facilities are insured by the sister in charge.

### **30. SEWAGE TREATMENT PLANT-**

The institute has a sewage treatment plant; the sewage water is used for gardening, landscaping, cooling towers etc.

#### **Infection control in the hospital:**

-Aseptic techniques followed in various departments are:

- procedure
- Isolation wards
- Rodent control

HEPA filters with air exhaust air passages

Environment specimens like trash, garbage storage and collection, infectious waste.etc.

### **31. MANAGEMENT OF SWINE FLU**

For the management of swine flu following steps have been taken by the hospital:

- Isolation wards of Swine Flu.
- Quarantine for swine flu cases reported.
- Disinfection of swine flu wards.

### 32. INFORMATION EDUCATION MATERIAL:

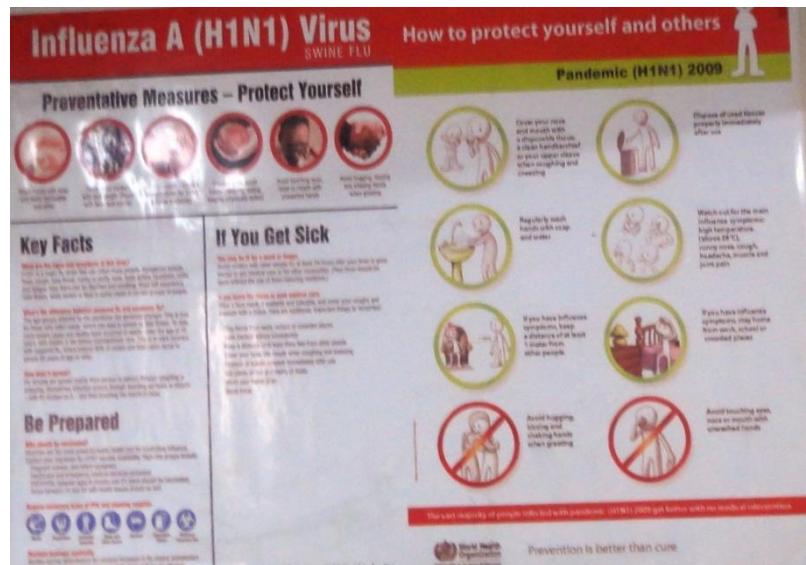


Image of the representation of information education material for patients and visitors in the hospital

### 33. STATUTORY WARNINGS:



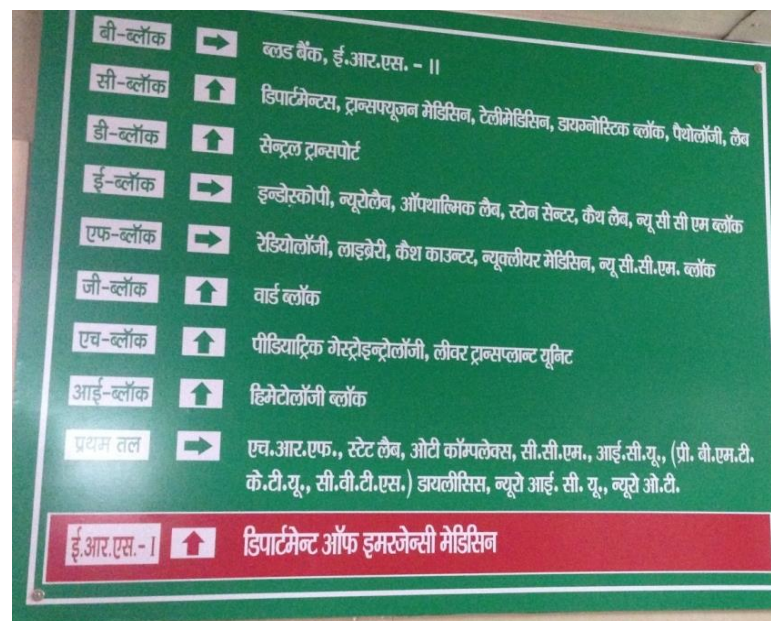
Image of the representation of statutory warnings for patients and visitors in the hospital

### SIGNAGES IN THE HOSPITAL

At the main gate:



Inside the hospital entry:



### **Image of the representation of signage's in the hospital premises for patients and visitors convenience**

### **30. PARKING**

The hospital provides parking space for two wheelers and four wheelers for resident's faculty, staff and for the public. The parking facilities are available for 24 hr there are two working shifts having 10 checking staff of which 8 in morning shift from 8:00 am to 8 p.m and 2-4 night staff from 8:00 pm to 8am.

Additional parking for three wheelers, scooters and motor cycles and separate parking for bicycles and rickshaw should be considered.

### **HELPLINE NUMBERS-**

The helpline numbers of the hospital for meeting the emergency situations are:

SGPGIMS BURNS HELPLINE-8004904535

P.R.O office number is provided in the patient's case file for requirement of any information.

EMERGENCY AMBULANCE SERVICE FACILITY BY NATIONAL HEALTH MISSION, GOVT OF UTTAR PRADESH-108

Medical social workers at the Institute can be reached at 0522-2668700 or 2668800 (Extension 2070 or 2073).

### **31. CONCLUSIVE LEARNING, LIMITATIONS, SUGGESTIONS FOR IMPROVEMENT**

It is a matter of pride for the state of Uttar Pradesh that S.G.P.G.I.M.S has been able to create a niche for itself at the national level. In spite of resource constraints , the state is committed to full development and sustenance of the project .The institute works to provide quality health care to people coming from various parts of the country. The workload increases day by day so the facilities need more funds and investment by the State to meet the requirements. Also the need of efficient and effective management

strategies to meet the demand of the needy justifies the role of hospital management of S.G.P.G.I.M.S.

### **32. LIMITATIONS OF THE INSTITUTE:**

- Far from the city and not well connected.
- Distance between highway and hospital is very large.
- Emergency services are having limited facilities.
- Due to huge patient overload there is a shortage of beds in some departments
- OPD is overcrowded.
- Behaviour of the available manpower.
- Wheelchairs and stretchers request for patients are huge and provision on time is not met sometimes.
- Professional liability.
- Corridors are real bottleneck
- Less available manpower for guiding the patient to respective departments and areas in the institute.
- Employee absenteeism is a problem in some departments.
- The value added services in the OPD is the reason of overcrowding at the registration counters.
- Circulation area for bed movement and wheelchairs and stretchers is less in some areas.

### **33. SUGGESTIONS FOR IMPROVEMENT**

- Establishment of public address system for announcements and bio-metric system for employees is in pipeline by the department of hospital administration of the institute.
- Visiting attendant and visiting patient cards should be issued
- Establishment of a disaster plan and procedure to prevent panic during earthquakes, fire and bomb threat.

Institute internal audit and internal control system should be done by the departments and reviewed with the department of hospital administration

- Performance appraisal of the regular staff should be done by various departments.
- Establishment of PACS (Picture Archival and Communication System) in the area of diagnostic imaging.
- Bedside Documentation for nursing documentation, connected to the computer on the nursing station.
- Nurses call button should be made operational.
- Toilets should be provided with panic buttons.
- Pay tele phone facilities for patients and relatives in case of emergency.
- Name board and availability of doctors displayed at the entrance of each OPD halls
- Information and help desk should be made functional.
- All the vacant posts should be filled or provisions should be made to meet manpower requirement of the department.
- Control of hospital parameters since it is very difficult in a sprawling campus and spread out buildings like this.
- Control of human traffic like employees, visitors, drivers, contractors, vendors, etc. Conduct body search , if necessary
- Identify and authorize persons to issue keys and an effective, enforceable procedure to retrieve them.
- Provide roll-up shutters or grills at strategic places for night time protection.
- Established service rules for all employees, should be reviewed, each employee should be given a printed copy of service rules, the receipt of which he/she has to acknowledge.
- Establish policies and procedure manual (SOPs) for each department.

- Establish well-formulated procedures for supply and distribution of material to respective departments and proper functioning lockers.
- Conduct surprise checks of all department inventories.
- Public Waiting area in some departments (operation theatre complex) in main building needs to be equipped with sufficient chairs and sofas.
- A separate cell for the ambulance services and then start an on-call service or out-source the same.
- Disaster Code Alarms (red, green, black, blue, white) for disaster and emergency preparedness.
- Wrist Colour Band for identification of patients should be introduced.
- Sluicing machine in the laundry needs to be introduced.
- Provision of cardiac ambulance and air ambulance services.

**SECTION B**

**STUDY PROJECT**

**TITLE: AN AUDIT OF BLOOD DONOR'S PERCEPTION ABOUT THE BLOOD  
COLLECTION PROCESS AT THE TERTIARY CARE HEALTH INSTITUTE**

## **AN AUDIT OF BLOOD DONOR'S PERCEPTION ABOUT BLOOD COLLECTION PROCESS IN A TERTIARY CARE INSTITUTE**

### **SECTION 1.INTRODUCTION**

Blood transfusion service is a vital role of the National Health Service and there is no substitute for human blood and its components. Increase in advancement in the field of transfusion medicine has necessitated enforcing stringent criteria control over the quality of blood and its products. In most of the developed countries, the blood banking system has advanced in all facets of donor management, storage of blood, grouping and cross matching, testing for transfusion infections and more, rationale use of blood and distribution.

Steps taken to provide quality of care to donors, keeping waiting time at blood donation short is important for making donation a good experience for the donors and hence to motivate for repeat donation. There are various barriers to donating blood that influence the behavior of people towards blood donation such as cultural beliefs in some ethnic groups, socio-economic factors, their knowledge or lack of knowledge with regards to blood donation and other issues. Donation of blood has always been considered as a humanitarian act and a positive behavioral phenomenon. By and large blood donors can be categorized broadly as -Voluntary Blood Donors, Replacement Blood Donors, and Professional Blood Donors. These categories are based on the behavioral patterns of the donors. "More blood, more life," this was the theme for World Blood Donor Day 2011 on the 14 of June to emphasize the critical need for more people all over the world to become lifesavers by donating blood regularly. Based on reports from 173 countries to WHO, around 93 million blood donors are donating blood annually.

Increase in the level of awareness and, developing positive attitude towards the act of blood donation is principle responsibility of all the blood transfusion services. The initial step for achieving this goal is to perform comprehensive studies assessing the current situation of awareness, knowledge, beliefs, and both positive and negative attitudes of the population towards blood donation. The Blood Transfusion Service in India is highly decentralized and lacks many vital resources like trained manpower, adequate infrastructure and financial base. The main issue, which plagues blood banking system in the country, is fragmented management. The standards vary from State to State, cities to

cities and centre to centre in the same city. In spite of hospital based system, many large hospitals and nursing homes do not have their own blood banks and this has led to proliferation of stand-alone private blood banks. In India, Heath System currently operates within an environment of rapid social, economical and technical changes. Such changes raise the concern for the quality of health care. Blood banks/blood centers are an integral part of health care system.

The blood component production/availability and utilization is extremely limited. There is shortage of trained health-care professionals in the field of transfusion medicine.

For quality, safety and efficacy of blood and blood products, well-equipped blood centers with adequate infrastructure and trained manpower is an essential requirement. For effective clinical use of blood, it is necessary to train clinical staff. To attain maximum safety, the requirements of good manufacturing practices and implementation of quality system moving towards total quality management, have posed a challenge to the organization and management of blood transfusion service.

Sanjay Gandhi Institute Of Medical Sciences (S.G.P.G.I.M.S) a tertiary care hospital has its own operational static blood collection centre in the institute established in year 2012 which meets the demands of blood of thousands of patients daily for various medical and surgical procedures

### **REVIEW OF LITERATURE:**

The researcher have reviewed the studies of economists and researchers who have investigated that engaging in a pro social behavior (voluntary actions that are intended to benefit another group of individuals) individuals weigh both the benefits and costs .In the context of blood donations, where an individual obtains new information about the donation process each time he donates (e.g., how he felt after the donation, the degree of discomfort and the length of time he waited) and this new information can then affect future donation decisions. Wait time, in particular, is a cost incurred by all donors, is observable and varies, providing a good test of whether longer waits (i.e., higher costs) affect future behaviour.

The first hypothesis is supported by the findings that longer waits incite customer frustration and annoyance and lead to lower service evaluations in non-pro-social contexts. However, previous wait time research has had to rely on service evaluation and future intentions as proximal outcome measures since return behaviour at the individual

level has been unavailable. Hence, our results offer the first test that satisfaction with waiting will affect attitudes but also future behavior of return for blood donation.

<sup>1</sup>The researcher have analyzed the data from the Australian Red Cross Blood Service (the Blood Service), supplemented by survey data, collected across four centers in July 2009 tested the effect of wait time on three outcomes: satisfaction, intention to donate and actual return donation behavior. Two main sets of findings, were reported by researchers first, longer waits negatively affect future donation behaviour secondly longer waits are associated with lower levels of satisfaction on all the types of donors. Studies have highlighted that longer waits raise dissatisfaction amongst women donors; they are more likely to donate in response to incentive offers.

The National Blood Policy (India, 2002) and the development of National Blood Programme lays down policies and procedures aimed at strengthening the health system of our country. Blood centers' are unique as they are usually nonprofit organizations with a strong sense of mission. Their dependency is on the goodwill of the community. The "raw material" donor is persuaded not controlled. As the most of the blood donor are voluntary or replacement blood banking services in hospitals should comply with donor requests regarding locations and hours of sessions. Staff is trained to be service minded.

Health services are dependent on safe and readily available supplies of blood to help save lives. However, tighter screening of blood donors in recent years has led to a decrease in the volume of blood collected. Despite the fact that the volume of blood collected has fallen, the demand for whole blood and blood products is increasing, at a rate higher than the collection rate. Unfortunately, worldwide there is a shortage of active blood donors to meet the increased demand for blood.

<sup>2</sup>Previous studies have investigated the predictive ability of a range of attitude and behaviour variables for the purpose of offering blood collection agencies guidance with formulating specific strategies to address donor shortages. One direction previous blood donation studies have taken is to examine how blood donors differ from non-donors in terms of their demographic characteristics: age, gender, marital status, ethnicity, education and income. A review of the blood donation literature by Piliavin and Callero

(1991) concluded that there are no easily-identifiable characteristics of individuals that can readily predict who will become a regular, altruistic blood donor. <sup>3</sup>The results of studies reviewed by the researcher show that effective factors on willingness of blood donors to donate blood again include gender, educational level, and physical condition of the donation room, practical skills of employees, waiting time and communication skills of employees.

### **RATIONALE OF THE STUDY**

Donor's perception regarding the blood collection process and facilities available at the tertiary health care institute was reviewed by the researchers. Making each donation experience is the key factor to recruit and retain donors in public sector

The **rationale** behind the study is an attempt to gain knowledge on the process of blood collection and donor's perception of the donation facilities in a tertiary care hospital. Identify and implement new processes to improve quality of care, which has a association with donors willingness to return as a voluntary non –remunerated donor. The aim of this audit was to assess the current status of blood collection process in the institute.

### **PROBLEM STATEMENT AND THEORETICAL FRAMEWORK**

Today one of the most important challenges and problems is attention to various aspects of attract, relationships and customer retention. Continuous improvement that includes customer orientation, quality orientation and affairs implementation as shape of team is always from interest principle of dynamic and successful organizations. Therefore a continuous awareness from the ultimate satisfaction of each customer or intermediary in continuous improvements promotes of providing and securing blood products is very important. It is obvious that planning and operating organization without the knowledge of their customers' expectations were unable to accountability to the changing and growing needs of its customers and eventually will stagnate and break . It can be concluded that client satisfaction is considerate as a criterion to determine the effectiveness and efficiency of the organization. Therefore, giving sufficient information from blood sampling environment, information regarding donating conditions and viral infectious diseases transmitted through blood and environmental agents, the contribution to the noble cause of saving lives by donating, have helped to attract continuous donors and increasing the number of donors and eventually lead to a safe and adequate blood supply is the core mission of the organization. Considering that the end customer of this organization are need for blood and blood products, initial suppliers (blood donors)

should always be ongoing and healthy available in the organization in order to not face the problem of necessary and sufficient blood supply. Therefore, according to content expressed is the following main problem statement is formulated:

**Despite of adequate infrastructure and trained manpower at the blood collection centre the return rate of donors especially voluntary is low at the tertiary care health institute, which factors contribute to willingness of return of a donor?**

<sup>4</sup>Research on blood donation behaviour to date has tended to take one of three directions. One aspect of donor behaviour that has been investigated is the use of motivational incentives, such as monetary inducements, to encourage donation. In a survey done by some researchers it was found that social marketing with modeling of commercial marketing tools try to advertise and marketing products and ideas and values of effective in people's health. Voluntary blood donation is a valuable product of promotional and marketing. In this way, rather than giving mere information and dry directions to all the people trying to by studying the behavior and attitudes of different groups of people in connection with the lack of voluntary blood donation must be set a program because by using appropriate method to change attitudes induce value in the name of voluntary blood donation in treasures of the audience values. In other words, by identify behavioral and normative beliefs and the perceived and influencing of these beliefs on the willingness to voluntary blood donation can provide possible strategies for attracting more people to a voluntary donation. Goal in this type of marketing is not only a process of exchange and trade but it is the intent and purpose of higher that influence on actions and behavior of individuals in society and this behavior change provides supply of blood and blood products healthy for patients or those in need a variety of blood products. In this regard, factors such as level of education, gender, positive beliefs toward blood donation play a greater role in the willingness to donate blood voluntarily and regularly. It also seems that active and effective communication with donors and having trained personnel and appropriate equipment and adequate space is important in attracting donors.

**AIM-An audit of blood donors perception about blood collection process in a tertiary care health institute.**

**RESEARCH QUESTION:**

- 1 .What is the general perception of donors regarding the services provided at the blood collection centre of S.G.P.G.I.M.S Lucknow?
1. What is the impact of waiting period on the intention to donate?
2. What measures can be taken to improve donor satisfaction?

3. What factors contribute to donor willingness to donate as voluntary non remunerated blood donors?

### **OBJECTIVES:**

#### **General objective:**

To find out measures aimed at process improvement at the blood collection centre services in a tertiary health institute.

#### **Specific objectives:**

1. To study the process of donor recruitment in a tertiary care institute.
2. To determine the relationship between waiting period and willingness to donate in future.
3. To determine the critical process affecting the quality of care from donor registration, to blood collection to provision of refreshments when the blood collection is completed.
4. To use the findings to make recommendations for process improvement at the blood collection centre

### **RESEARCH HYPOTHESIS**

- Socio demographic variables like age and gender has an impact on their willingness to donate blood again
- Physical conditions of the donation room in terms of (light-waiting area-cleanliness of the blood bank) have an impact on the blood donor willingness to donate blood again.
- Behaviour of the employees(staff and medical officer on duty)has an impact on donor willingness to donate blood
- Shortening waiting time for blood donation has a positive impact on blood donor's willingness to donate blood again.

### **RESEARCH METHODOLOGY**

Area of study: Blood Centre Services at S.G.P.G.M.I.S, Lucknow.

#### **DURATION OF STUDY:**

The study is carried out in the time period of 1 month (1/5/2015).

Reason:

Large number of donor population comprising of mainly replacement donors visit daily to the blood centre at S.G. P.G.I.M.S, Lucknow.

Blood transfusion services at the institute include recruitment, collection, processing and storage of blood, rationale use of blood. Donor management and services offered at the blood centre thus play an important role to meet the demand of blood for thousands of needy patients visiting the institute for various surgical and medical procedures.

#### **STUDY TYPE:**

Quantative study and qualitative

#### **STUDY DESIGN:**

It is descriptive study-analytical and exploratory.

Qualitative-observation

#### **STUDY POPULATION:**

Donors comprising of voluntary, replacement, directed, autologous categories.

#### **SAMPLE UNIT**

Donors who visited the blood bank to donate blood during the month of May between 11 am to 4 p.m from Monday to Friday were included in the survey.

#### **SAMPLING METHOD**

Sampling method could not be done due to resource and time constraints, however a pilot study of 45 participants was done and later 300 donors were interviewed for the study.

#### **RESEARCH NATURE**

Causal

#### **CRITERIA FOR THE STUDY**

##### **Inclusion criteria**

All the donors from voluntary, replacement, directed, autologous were included.

##### **Exclusion criteria**

The donor was briefed about the interview and the unwilling respondents were excluded.

Donors who developed post donation complications and reactions were excluded.

#### **ETHICAL CONSIDERATION**

- Informed consent was taken from the Head, Department Of Transfusion Medicine and from the Department of Hospital Administration S.G.P.G.I.M.S Lucknow however due to time constraints the consent of donors for the interview schedule could not be taken.
- Purpose and objectives of the research was explained before to the donor's respondents.

- Privacy and confidentiality was maintained.

### **VALIDITY AND RELIABILITY OF THE STUDY**

- Local dialect was used during the time of data collect from the respondent.
- Research was carried out under the research guide.
- The researcher was directly involved in data collection, cross checking, data processing and data analysis.
- Validity of questionnaire was confirmed by advisors and supervisors from the department of Hospital Administration and Transfusion Medicine.
- Regular review of literature

### **SECTION 2.DATA COLLECTION**

Subjects from the blood donor survey

Structured Questionnaire-based samples were collected from 345 participants and 300 questionnaires (comprising of closed ended questions) were analyzed.. Indicators to evaluate quality of blood bank services were developed after review of literature. Study periods lasted for 1 month (May 2015), an exit interview for donors was designed. The four-page self-administered questionnaire was told to fill after the donation and return it anonymously. Almost all donors returned the questionnaire, giving a response rate of about 100 percent.

It was 20 point questionnaire, including socio-demographic information (gender, age, social status, education, dietary habits etc.) , recruitment method, the donors' evaluation of the blood collection centre services, a quality of care score was calculated by considering the following variables:

1.a)Availability of facilities= Scores to be added are Waiting area+ Light+ Refreshments + Newspapers+ cleanliness of blood centre+ charts displayed on the walls+ provision of leaflets pamphlets at the blood centre(information educative material)=Maximum score of 6

Scoring modified for calculating score as: 6 point Lickert's scale in which 1 indicated very poor, 2 poor, 3 fair, 4 good,5 very good,6 excellent.

b) Phlebotomy services=Scores to be added are Veni Puncture (VP) +Double Puncture (DP) hematoma +Faint+ Donor Couch Comfort (DC) =Maximum Score of 5

Scoring method for calculating score :5 point Lickerts' scale in which 1 indicated strongly agree,2 agree,3 neutral,4 disagree,5 strongly disagree.

This was done in the performa so as to prevent bias and manipulation of the scoring.

### **QUALITY CONTROL**

“Quality is a dynamic state associated with products, services, processes, people and environment that meets or exceeds expectation and helps produce superior value.”

If we are concerned with providing, value to the customers we must consider how we can improve customer value. There are number of principles which are central to the practice of Quality Management:

☐ Customer Focus ☐ Strategic Focus ☐ Leadership Focus ☐ Process Focus ☐ People Focus ☐ Scientific Focus ☐ Continual Improvement, Innovation and Learning ☐

Systems Thinking

In today's international environment, Statistical Process Control (SPC) and situational analysis are fundamental elements of any organization's quality master plan. Quality can mean different things for different people and can be interpreted in a variety of ways by an individual. Quality may be thought to have two main divisions. The quality of a manufactured product and quality of service received. From the manufacturing stand point quality is simply conformance to specification. The ultimate customer could define the quality as fitness to use.

Statistical process control is a procedure in which data is collected, organized, analyzed and interpreted so that a process can be maintained at its present level of quality or improved to a higher level of quality.

The methods in Statistical Process Control (SPC) are collection of data, Organization of data, Analysis of data and Interpretation of data. SPC can be employed wherever the work is being done. SPC involves the use of statistical signals to identify source of variations, to improve performance and to maintain control of process at higher levels. The SPC is a system which emphasis on the prevention of failure. The basic tools of SPC are:

1. Flow Chart: The entire process is diagrammed from the start to finish with each step of the process clearly indicated.

2. Pareto Chart: The number of occurrence or the costs of occurrence of specific problem are charted on a bar graph. The largest bars indicate the major problem and are used for determining the priorities for problem solving.

3. Check Sheets: A data gathering sheet is prepared that categorize problems or defects. Check sheets information may be put on a Pareto chart.

4. Cause and Effect Diagram: A problem is systematically tacked back to possible cause. The diagram organizes the search for the root cause of the problem. The similar diagram can be used to systematically search solutions to a problem.

5. Histogram: A bar chart showing the comparative frequency of specific measurements. The shape of the histogram can indicate that a problem exist at a specific point in a process.

6. Control Chart: One of the main tools of SPC is the control chart. Originally introduced by Dr. Walter Shewart in 1920's has revolutionized the way companies in both manufacturing and service industries monitor quality. Broken line graphs illustrate how a process or a point in a process behaves over time. Samples are periodically taken checked or measured and the result plotted on the chart.

Situational analysis is a comprehensive approach for assessment of quality. This approach looks at service delivery points and analyzes the relationship between performance and quality of services provided; it determines the impact of quality assurance and determines the relationship between utilization and quality.

## 2.1 Quality Improvement □

The factors affecting the quality are as follows:

1. Machine: Improve the machinery to be able to produce consistent quality products.
2. Material: Establish partnership with the supplier. Gather data and provide feedback to supplier about the quality.
3. Manpower: Train your personnel to take responsibility for the process. Give responsibility to the process owner.
4. Method: Gather data from the process. Use even quality tools to analyze data. Develop better methods to meet the requirements.
5. Environment: Make visible control possible. Improve working condition for the operator. Improve layout constantly.

A situational analysis approach (to assess quality of care in blood bank of S.G.P.G.I.M.S) has been adopted for quality assessment. The quality of blood bank/centre services and donor satisfaction based on intention to return for donation in future has been analyzed.

An exit interview schedule was adopted to collect data from sample respondents. The instrument was pilot tested with a group of donors, not included in the sample.

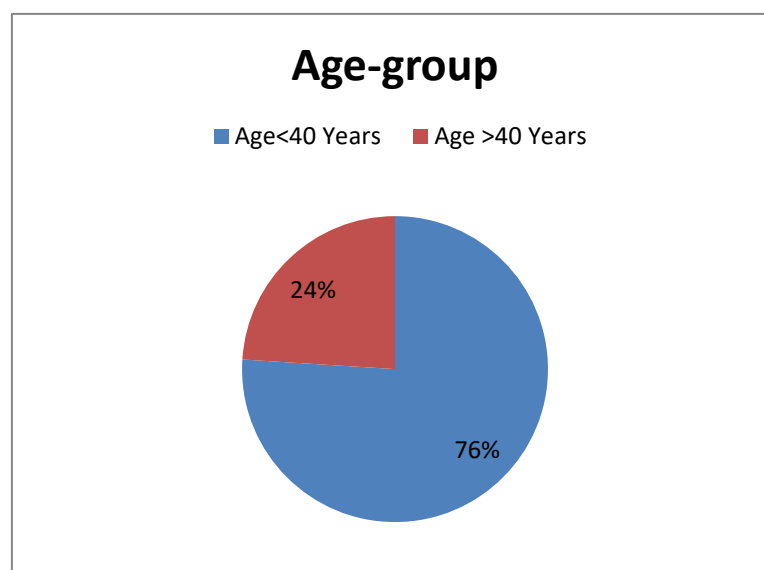
### STATISTICAL ANALYSIS

All statistical analysis was carried out with the SPSS software. Measurement scales used are nominal and ordinal. Socio-demographic characteristics of blood donors were analyzed in numbers (per cent). In demographic variables, intra -group comparisons were made and p value was calculated. Univariate analysis was used for descriptive frequencies of variables concerning donor satisfaction, intention to return. Bivariate associations between demographic and blood donation variables compared to donor satisfaction ,intention to return were calculated using Chi-square test .Calculated value was then compared with tabulated value and p value was calculated. If calculated value was more than tabulated value then p value  $<0.05$  was significant.

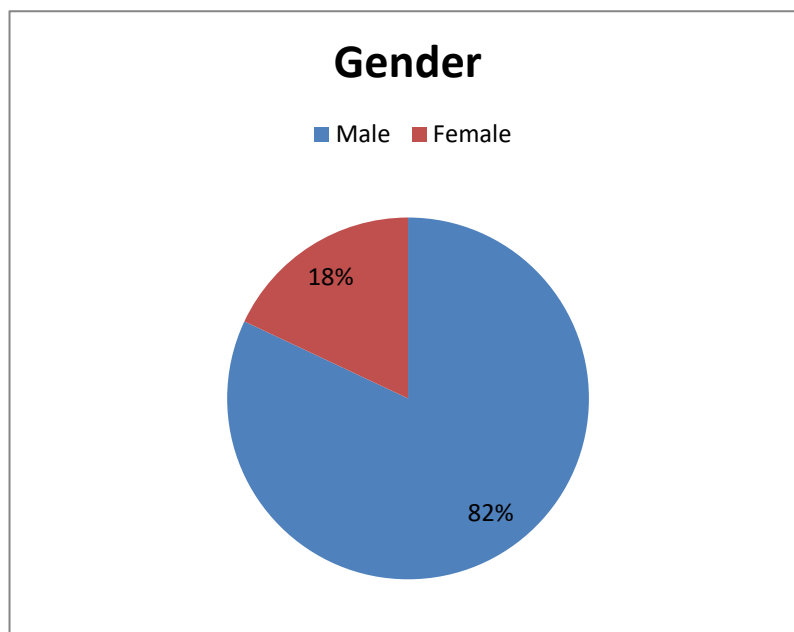
### SECTION 3.RESULTS:

#### A) Donor Demographics

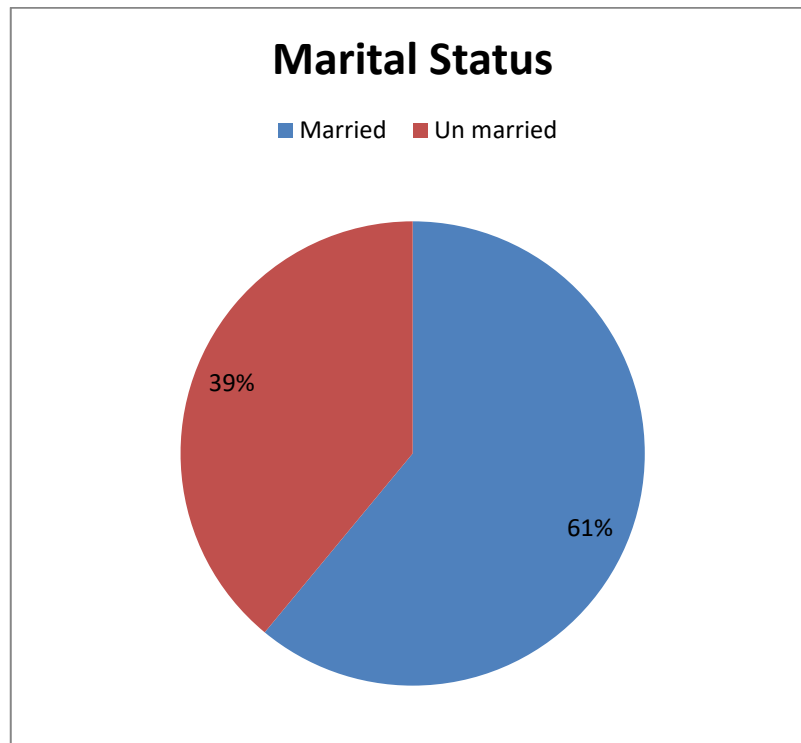
The primary data collected for the study was sorted, classified and tabulated by using the statistical package of social sciences (SPSS 16.0). In Figures 1-3, we present the basic demographic facts about the respondents. Evidently, most of the donors in the sample were below 40 years (Figure 1), male (Figure 2), and married (Figure 3).



**Figure 2.Age distribution of the donors**



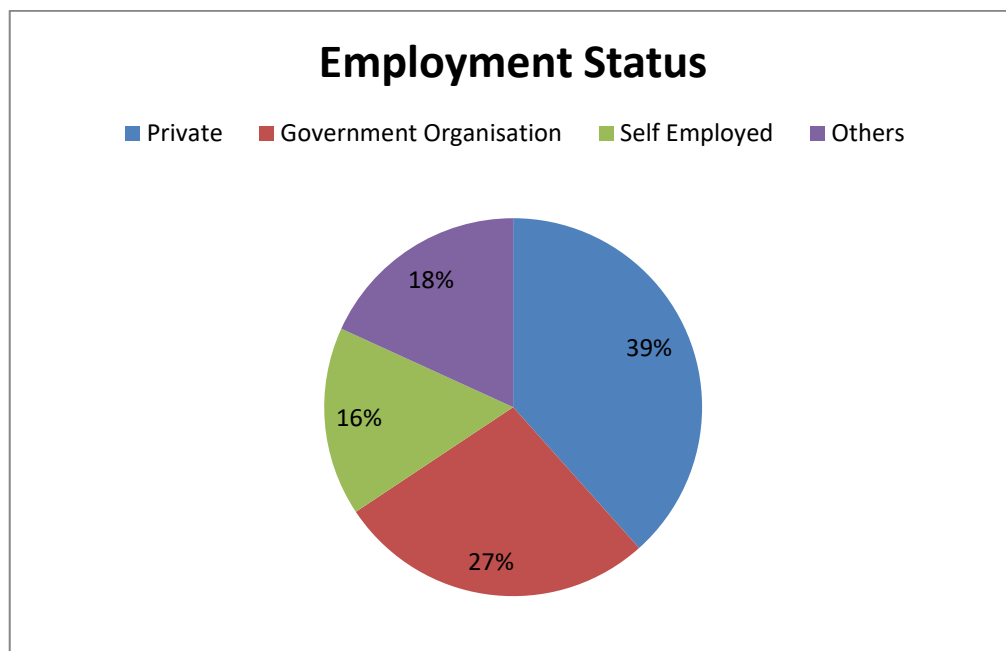
**Figure3.Gender distribution of the donors**



**Figure 4: Marital status of donors**

## B) Employment

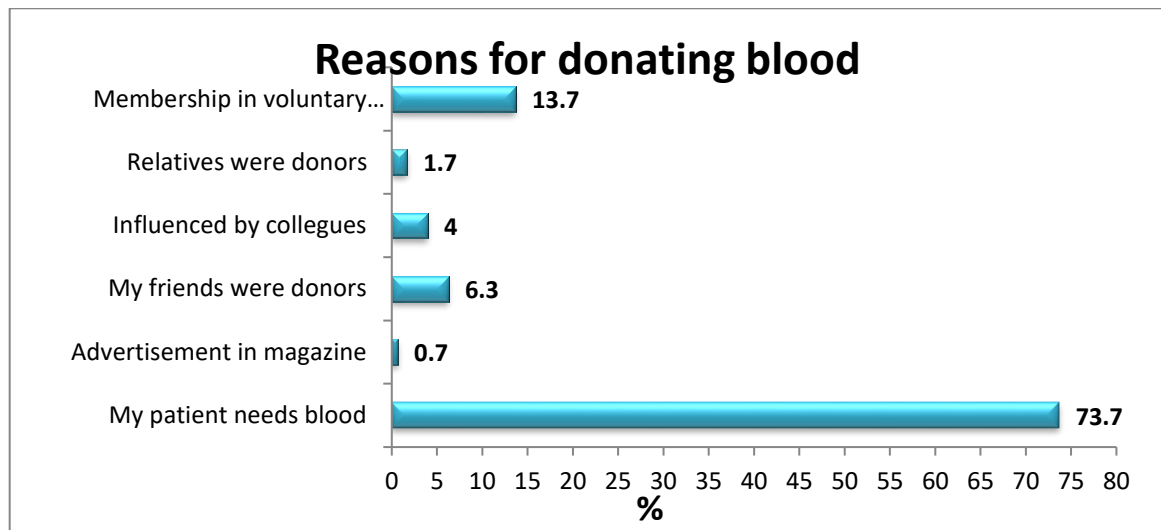
A large section of donors in the tertiary care health institute belonged to private firm (39%), which included businessman private firm owners, people working in private organizations in advertising, technology mass media sectors and a few from NGO and self help groups. In figure 5 we present the employment status of the donors visiting the blood collection centre of the institute.



**Figure5: Employment status of the blood donor's depiction by pie-chart**

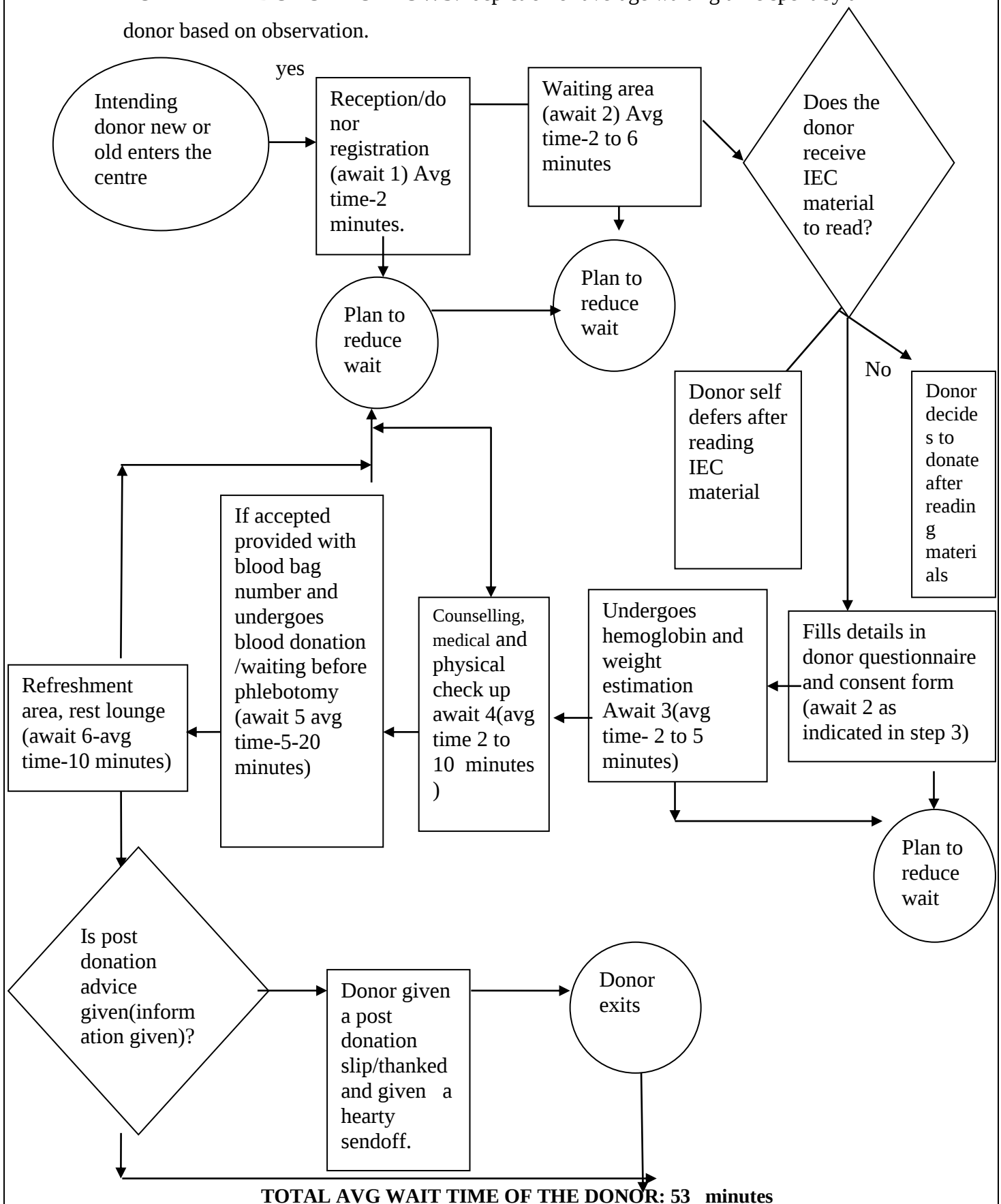
## C) Source of channel for recruitment for blood donation

The institute witnesses a large section of blood replacement blood donors at the blood collection centre, daily, in total 73.7% of all donors reported to donate blood as their patient, friends, relatives needed blood for various surgical and medical procedures scheduled. In total 13.7 % (graph) represented voluntary, non remunerated donors, they had a history of more than 5 donations and were called by the institute in of need of saving a life. This small section voluntary donors had some empathic and altruistic reasons to donate blood. In figure 6 we present the source of channel for recruitment of donors at the blood collection centre of the institute.



**Figure6: Source of recruitment for blood donation depiction by a bar chart**

**FLOW DIAGRAM OF BLOOD COLLECTION CENTRE SERVICES THAT A POTENTIAL DONOR FOLLOWS:**\*depiction of average waiting time spent by a donor based on observation.



On the basis of statistical process control the above flowchart for assessment of the process at the blood collection centre was formulated. A donor on average spends 53 minutes at the blood collection centre in the tertiary care institute, in waiting at the blood collection centre for donating blood.

**Table 5. Percentage satisfaction of blood donor's case summary**

| CHARACTERISTICS | Variables   | No%        |
|-----------------|-------------|------------|
| AGE             | <40         | 228(26%)   |
|                 | >40         | 72(24%)    |
| SEX             | Male        | 246(82%)   |
|                 | Female      | 53(17.8 %) |
| Marital         | Married     | 182(60.7%) |
|                 | Not married | 118(39.3%) |
| Vegetarian      | Yes         | 117(39%)   |
|                 | No          | 118(60.7%) |
| Smoker          | Yes         | 127(42.3%) |
|                 | No          | 123(57.7%) |
| Alcoholic       | Yes         | 106(35.3%) |
|                 | No          | 193(64.3%) |
| Parking         | Yes         | 148(49.3%) |
|                 | No          | 152(50.7%) |

Out of 300 blood donors, it was observed that overall satisfaction after donation of blood is associated significantly unmarried donors versus non married donors and alcoholics versus non alcoholics and people who have used the parking of the institute. This is not consistent with some other surveys reviewed by the researcher. This is a public sector study and a large section of donors at the blood centre are 'replacement donors' and gave high satisfaction ratings, of the overall donation experience given in table 1 of various socio-demographic profiles. Women in the present study gave a low satisfaction ratings (17.8%) ,due to low numbers it cannot be hypothesized. In this study majority of donors

were males(82%),married(60.7%),non vegetarians(60.75%),non smokers(57.7%),non-alcoholics(64.3%).

The study revealed that all the 300 donors were satisfied with donor packet and hospital facilities such as waiting area, light arrangement, newspapers, cleanliness provision by the blood centre. All of them were satisfied with the phlebotomy services(courtesy of the staff, explanation by the medical officer, veni puncture, double puncture, no swelling ,no fainting episodes after blood donation and for comfortable donor couch).The mean score for availability of hospital services is given in Table 6 and Table 7.

**Table 6.Mean quality score and donor satisfaction level on the availability of facilities donors' convenience**

|                            | N   | Range | Minimum in score | Maximum score | Mean   | Std. Deviation |
|----------------------------|-----|-------|------------------|---------------|--------|----------------|
| <b>NEWSPAPER</b>           |     |       |                  | 3             |        |                |
|                            | 300 | 5.00  | 1.00             | 6.00          | 2.1433 | 1.02940        |
| <b>IECMATERIALREADING</b>  | 299 | 5.00  | 1.00             | 3.00          | 2.4247 | 1.23301        |
| <b>IECMATERIALCHARTS</b>   | 300 | 4.00  | 1.00             | 2.00          | 3.2200 | .94935         |
| <b>LIGHTARRANGEMENT</b>    | 300 | 4.00  | 2.00             | 6.00          | 4.1933 | .96906         |
| <b>DONOR COUCH COMFORT</b> | 300 | 4.00  | 2.00             | 6.00          | 4.1100 | .95618         |
| <b>REFRESHMENTSGIVEN</b>   | 300 | 5.00  | 1.00             | 6.00          | 3.6033 | 1.11810        |
| <b>CLEANLINESS</b>         | 300 | 5.00  | 1.00             | 6.00          | 3.8767 | 1.09794        |
| <b>WAITINGAREA</b>         | 300 | 5.00  | 1.00             | 6.00          | 3.7800 | 1.08421        |
| <b>Valid N (list wise)</b> | 299 |       |                  |               |        |                |

**\*Maximum total score=44**

**Mean total score= 23**

**Table 7. Mean quality score of the phlebotomy services**

|                            | N          | Minimum score | Maximum score | Mean          | Std. Deviation |
|----------------------------|------------|---------------|---------------|---------------|----------------|
| <b>VENIPUNCTURE</b>        | <b>300</b> | <b>1.00</b>   | <b>4.00</b>   | <b>1.3533</b> | <b>.61352</b>  |
| <b>DOUBLEPUNCTURE</b>      | <b>300</b> | <b>1.00</b>   | <b>4.00</b>   | <b>1.1533</b> | <b>.48020</b>  |
| <b>SWELL</b>               | <b>300</b> | <b>1.00</b>   | <b>4.00</b>   | <b>1.1567</b> | <b>.48030</b>  |
| <b>FAINT</b>               | <b>300</b> | <b>1.00</b>   | <b>3.00</b>   | <b>1.1933</b> | <b>.51980</b>  |
| <b>Valid N (list wise)</b> | <b>300</b> |               |               |               |                |

**Maximum total score: 4**

**Mean total score: 4**

Chi square test were used for bivariate associations and following analysis based on the structured null hypothesis were found to be statistically significant based on the p-value:-

1 In the first hypothesis test sig=0.002 obtained less than 0.05 so that can be said that at 95% confidence that hypothesis is confirmed and age of blood donors has an impact on donor willingness and intention to return again

**Table 8. Chi –square test for first hypothesis, donor demographic variable age, and depiction by p value**

|                              | Value               | Df | Asymp. Sig. (2-sided) |
|------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square           | 14.572 <sup>a</sup> | 3  | .002                  |
| Likelihood Ratio             | 13.534              | 3  | .004                  |
| Linear-by-Linear Association | .002                | 1  | .967                  |
| N of Valid Cases             | 300                 |    |                       |

DF is degree of freedom

Pearson Chi-Square –p value

.In the second test sig=0.00 that is less than 0.05 so that can be said that at 95% confidence the hypothesis is confirmed and that gender of blood donors has impact on donor willingness to donate blood again.

**Table 9. Chi square test table for donor demographic variable gender depiction by p value**

|             | Gen                  | INTENTION TO RETURN  |
|-------------|----------------------|----------------------|
| Chi-Square  | 1.229E2 <sup>a</sup> | 116.667 <sup>b</sup> |
| Df          | 1                    | 3                    |
| Asymp. Sig. | .000                 | .000                 |

3.In the second hypothesis sig=0.00 that is less than 0.005 so that at 95% confidence the hypothesis is confirmed and that physical conditions of the donation room in terms of light, cleanliness, waiting area has an impact on donor willingness to donate blood again.

**Table10. Chi-square test table for second hypothesis, physical conditions of the donation room depiction by p value**

|             | WAITING AREA         | NEW SPA PER          | IECMAT ERIAL READING | LIGHT ARRANGEMENT    | DONOR COMFORT        | REFRESHMENTS GIVEN   | CLEANLINESS          | INTENTION TO RETURN  |
|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Chi-Square  | 175.880 <sup>a</sup> | 229.920 <sup>a</sup> | 135.640 <sup>a</sup> | 122.567 <sup>b</sup> | 146.100 <sup>b</sup> | 161.720 <sup>a</sup> | 171.880 <sup>a</sup> | 116.667 <sup>c</sup> |
| Df          | 5                    | 5                    | 5                    | 4                    | 4                    | 5                    | 5                    | 3                    |
| Asymp. Sig. | .000                 | .000                 | .000                 | .000                 | .000                 | .000                 | .000                 | .000                 |

4. In the third test sig=0.00 obtained less than 0.05 so that can be said that with 95% confidence that the hypothesis is confirmed that behaviour and professionalism of employees (staff and medical officer at the blood centre) has an impact on donor willingness to donate blood.

**Table 11. Chi square test table for third hypothesis, behaviour and professionalism of employees ,depiction by p value**

|             | RB MEDICAL OFFICER   | INTENTION TO RETURN  |
|-------------|----------------------|----------------------|
| Chi-Square  | 161.233 <sup>a</sup> | 116.667 <sup>b</sup> |
| Df          | 4                    | 3                    |
| Asymp. Sig. | .000                 | .000                 |

5. In the fourth test sig=0.00 obtained less than 0.05 (p value), so can be said that with 95% confidence that hypothesis is confirmed and shortening waiting time for blood donation has an impact on blood donor willingness to donate blood again.

**Table 12. Chi square test table for fourth hypothesis shortening waiting time for blood collection, depiction by p value**

|             | RWTC                 | INTENTION TO RETURN  |
|-------------|----------------------|----------------------|
| Chi-Square  | 2.527E2 <sup>a</sup> | 116.667 <sup>b</sup> |
| Df          | 6                    | 3                    |
| Asymp. Sig. | .000                 | .000                 |

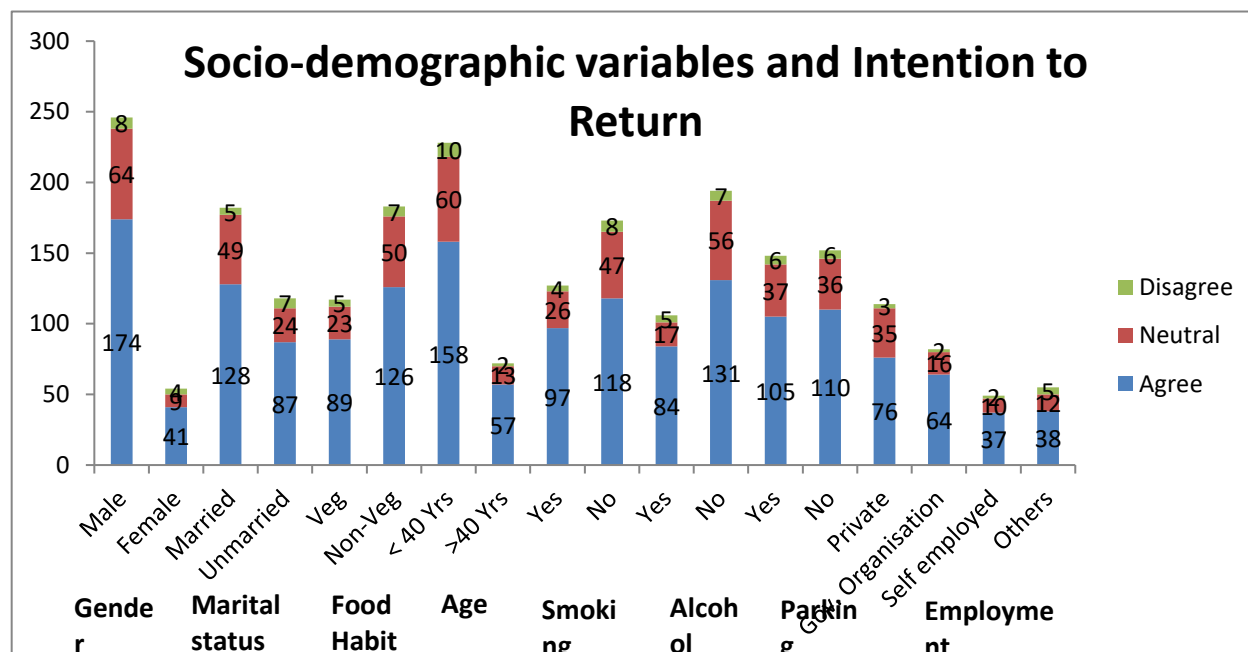
a. So does the sig=0.00 obtained that whether overall satisfaction of a blood donor plays a role for intention to return as a voluntary non-remunerated blood donor is confirmed.

**Table 13 Chi- square test table for overall satisfaction and intention to return depiction by p value**

|                                 | Value               | Df | Asymp.<br>Sig. (2-<br>sided) |
|---------------------------------|---------------------|----|------------------------------|
| Pearson Chi-Square              | 29.858 <sup>a</sup> | 9  | .000                         |
| Likelihood Ratio                | 29.824              | 9  | .000                         |
| Linear-by-Linear<br>Association | 7.795               | 1  | .005                         |
| N of Valid Cases                | 300                 |    |                              |

In the study intention to return had a positive association with male donors belonging to age group (>40 years), married donors. Majority of blood donors in the study agreed to return for donation in future on humanitarian grounds. The researcher measured the intention to return rather than the actual return. The association of intention to return with socio demographic variables measured on the Lickert's scale on the basis of ratings given by the 300 blood donors is shown in figure 7.

**Figure 7. Table depicting association of socio –demographic variables and intention to return of 300 donors, SGPGIMS, Lucknow.**



#### **SECTION 4.CONCLUSIONS AND RECOMMENDATIONS**

The results of the testing hypothesis show that effective factors like gender, age, physical condition of the donation room, practical skills of employees, waiting time have association with donor willingness to donate blood again .Thus results and recommendations of research is expressed as follows

The result of the first hypothesis that gender of the blood donors has an impact on their willingness to donate blood ,so given that most of the donors were male, it is recommended that training classes ,as well as advertising and support ,women may be more motivated to donate blood. Education on ‘safe donation’ and that blood donation turn out to be charitable work can work in their minds to increase their motivation to further reference.

Also large number of women donor deferrals is accountable for less females donating blood. Education by IEC reading material, leaflets about a being healthy female blood donor could be beneficial to educate regarding deferral rules. On arrival new donors can be shown power point presentations regarding deferral rules and reasons.

The hypothesis that age of the blood donors has an impact on willingness to donate bloods, it is indicated that younger people demonstrated less willingness to donate blood than older donors. Younger populations are currently targeted by blood collection agencies that often give incentives to young donors to donate blood. This finding is not consistent with some studies of researchers which have indicated that young donors are more likely to donate blood, with subsequent donations decreasing for reasons like chronic diseases and medication as people get older.

The result of the second hypothesis showed that good physical condition of the donation room and donor packet and services has an impact on donor willingness to donate blood again. Therefore, it is recommended that provision of blood donation clean environment and required facilities for donors so that donor do not feel uncomfortable and encourages them to further reference.

The result of the third hypothesis that practical skills and behavior of employees have an impact on donor willingness to donate blood again .Therefore it is recommended that trained and competent personal to learn the necessary skills and provide the necessary services to blood donors increases service quality.

The result of the seventh hypothesis that shortening waiting time for blood donation has an impact on blood donor willingness to donate blood again, so as the blood donor is either voluntary or replacement and unpaid ,therefore it is recommended that donations are by appointments in order to minimize wait time. By this approach the time pressured donors can strategically time their arrival to obtain a shorter wait, thereby curtailing the cost of donation. A reminder message for next donation by phone web/app can be given to donors .Measures aimed at shortening wait time are recommended as people who are not sufficiently time pressured chose to donate blood and individuals for whom time cost is most restrictive are not active donors.

The waiting period can be streamlined by giving token numbers to donors; the average wait time can thus be minimized by calling them only when their respective token numbers are displayed.

This study provides framework for process improvement to improve quality of care at the blood centre services of the institute which in turn will improve donor

satisfaction .Implementation of a new information system that would improve the donation planning process, today information base for blood donation and planning is not sufficient and this situation should be improved.

Institute primarily uses exchange information with the departments in need of blood for various surgical and medical procedures. Some unusual situations when there is a higher need of blood are reported, but reports are rather informal and written down in hand .Having in mind the work process are carried in shifts, the possibility of communication errors and emerging of other non-conformances is significant.

On the other side, Institute may formally put in some use statistical methods for simulating future use of blood products(based on history records of database) while sending alerts to departments in need of blood for various surgical and medical procedures may be a good idea to resolve surplus or deficit of some blood products.

As since most donors are replacement donors it was investigated that donors were driven by empathetic and self- regarding motives of contributing to save a person life, who may be a family member, friend, or relative. The institute should develop a better tool for evaluating blood donor recruitment and retention. Voluntary donors, non remunerated donors are termed as ‘altruistic’ owing to the fact that donors receive no material incentives for donating. A consistent finding that voluntarism of individualism is associated with inner joy from contributing to someone’s health or contributing or saving another person’s life which influence them to be long term blood donors.

Voluntary donors receive a certificate by the institute for the voluntary act; they can also receive a small token of gratitude (e.g. umbrella, bag or cap with the blood centre logo on it).

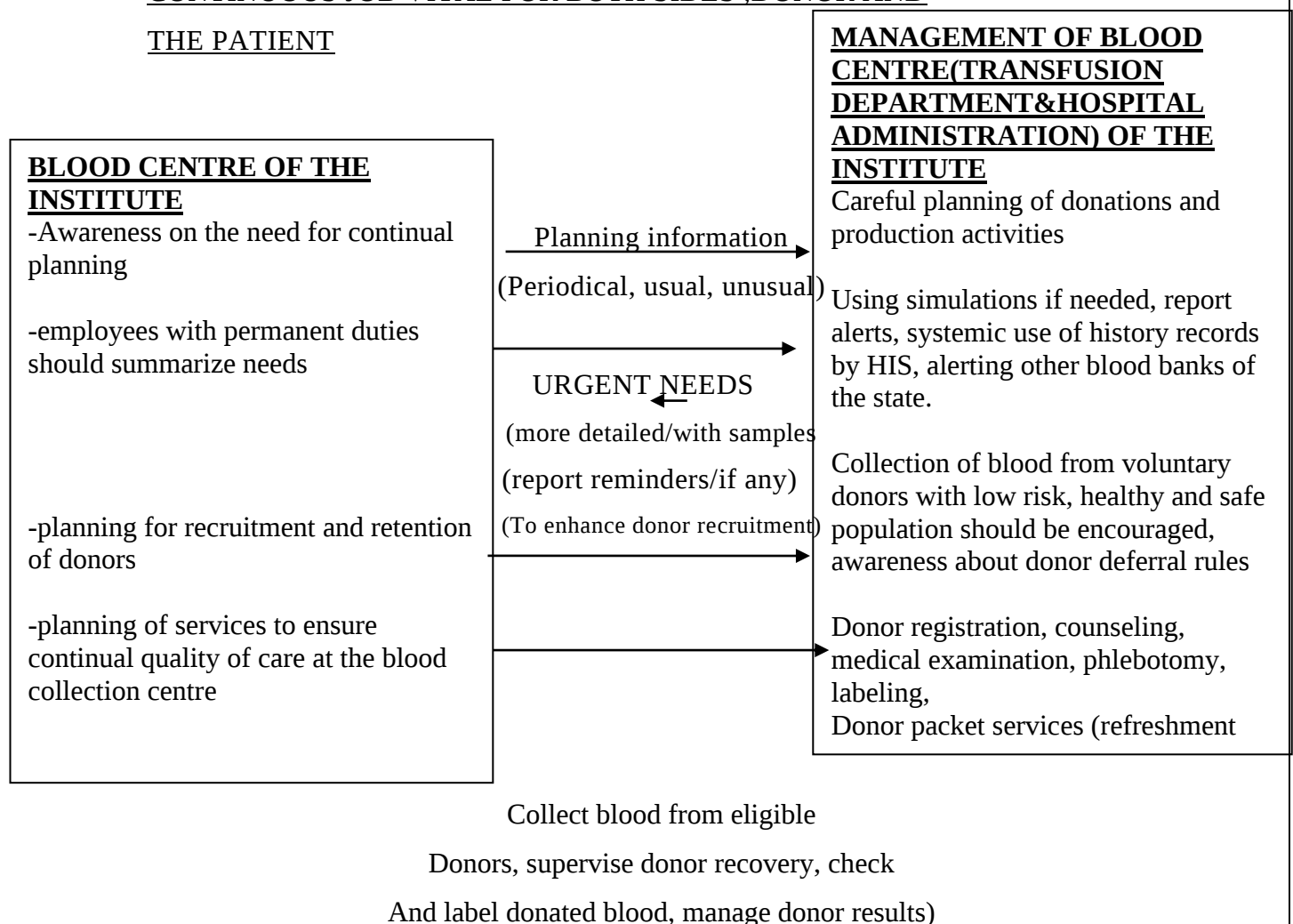
Regular donors at the blood centre should be informed regarding general deferral rules on the institute’s website. Voluntary donors can be instructed to contact the blood centre in case of medication, illness etc, and this approach can increase the number of voluntary donations.

The institute should aim at giving quality of care to the donor by the donor packet services which could make easy to donate blood also the donations may be fast and smooth.

Making donations by appointments, training staff to be service minded, appointments for next donation by phone, introduction of electronic questionnaire avoids frustrating waiting time.

The study provides a framework for process improvement at the blood collection centre at the tertiary health institute.

PLANNING IS A CONTINUOUS JOB OF THE MANAGEMENT AT THE BLOOD COLLECTION CENTRE ANY APPROPRIATE RESULT CAN HARDLY BE ACHIEVED WITHOUT PLANING ENCOURAGING AWARENESS IS A CONTINUOUS JOB VITAL FOR BOTH SIDES ,DONOR AND THE PATIENT



**Key elements of a donation planning and blood collection centre process improvement**

**Design of experiments (doe) quality improvement for donor management and blood collection centre process improvement after brainstorming session:-**

**Donabedian model**

**CONTROL X (INPUT) TO  
CONTROL Y (OUTPUT)**



| INPUT →                                                                                                                   | PROCESS →                                                                                                                                                                            | OUTPUT                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Factor 1.</b> Trained staff at the registration desk                                                                   | Prompt courteous services                                                                                                                                                            | Donor satisfaction of interpersonal behavior with the staff                                                                                                                                           |
| <b>Factor2.</b> Adequate waiting area with sufficient number of chairs and minimal wait time during the donation process. | Planning for minimal wait time                                                                                                                                                       | Access and availability/excess movement of non donors and donors in waiting area controlled.                                                                                                          |
| <b>Factor 3.</b> Hospital information database for donor registration                                                     | To know about the units of blood required by the various departments ,establishment of a loyal donor database for regular donors, to assess needs and blood inputs for future demand | Reduction in morbidity and mortality of the patients by contacting loyal donors during requirement.*Loyal donors are voluntary , healthy and safe donors, decrease in the length of stay of patients. |
| <b>Factor 4.</b> Creation of information educative material (bilingual )                                                  | Information, to educate new donors for various deferral rules.                                                                                                                       | Education activities on blood donation results in increase in voluntary donations in future/enhance new donor recruitment.                                                                            |
| <b>Factor 5.</b> Provision of separate rooms for medical Examination                                                      | History taking. Physical examination any risk assessment for donation process                                                                                                        | Confidential recording of history of male and female donors, counseling of donors before pre-donation                                                                                                 |
| <b>Factor6.</b> Giving token numbers to donors                                                                            | Calling for counseling ,medical examination ,phlebotomy etc                                                                                                                          | Streamlining the average wait time of the donor.                                                                                                                                                      |

|                                                                                          |                                                                                                                 |                                                                                                  |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Factor 7.</b> Phlebotomy Services                                                     | Veni puncture, Double puncture, episodes of fainting, swelling etc are noticed during blood collection process. | Donor satisfaction with correct blood collection procedure.                                      |
| <b>Factor 8</b> Proper and correct labeling (donation and blood sample bar codes)        | Test samples are labeled and units of blood unit collected are bar-coded./sent for lab processing and testing   | To prevent phlebotomy errors in labeling accountable for mis transfusion(Reduction in mortality) |
| <b>Factor9.</b> Adequate stock of medicines and drugs for emergency                      | To meet the requirement of post donation adverse events.                                                        | Reduction in morbidity by identification and management of donor adverse reactions               |
| <b>Factor 10</b> Refreshment area (donor canteen)/donor comfort lounge                   | Rest after the donation /monitoring of donors for some time to ensure a safe donation                           | Post donation care./supervision of donor recovery.                                               |
| <b>Factor 11</b> Adequate light arrangement, cleanliness, water facilities at the centre | Donor packet services                                                                                           | Donor satisfaction and willingness to return again.                                              |

## **SECTION 5.DISCUSSION**

The public sector and non- profit organizations have a strong sense of mission and that makes a blood centre unique'. The raw material (Donor) is persuaded not controlled. Excess of units of blood is collected due to huge demand even though waste is expected sometimes. The aim of the management is to improve quality of services, increase collections, improve patient care, recruitment so that the right blood product, at the right time reaches to the right patient.

The results of the testing hypothesis show that effective factors like gender, age, physical condition of the donation room, practical skills of employees, waiting time have association with donor willingness to donate blood again. Repetition of donation in the initial phase is a predictive factor for continued donations in future. Young donors (<40 years) found to be under-represented among blood donors should be noted. They lack motivational reasons and positive attitude towards donation of blood.

Similar findings of some researchers have reported exclusion criteria mainly of young donors due to reasons like body piercing and frequency change of sexual partner etc. Data in this study also suggest the importance of 'convience' as expressed by young donors that drives younger generation towards a voluntary act of donating blood. The under representation of women donors reflect reduced health status of women in the society, which may be explained by large number of women deferrals due to various health issues(less hemoglobin count, weight, etc).

New areas of health, as well as changing customer needs and healthcare provider organizations to satisfy should apply effective management practices. "Social marketing" is one of the methods. Studies of researchers have predicted the objectives of social marketing to influence actions and behavior of individuals in society. Over the past 20 years, many blood transfusion organizations have used marketing strategies for design and development of donor management programs.

It could prove beneficiary for public sector in this regard, blood donor management in providing resource of volunteer donors who are safe and healthy. It is felt that distinct promotional strategies should be adopted to enhance repeated donation.

#### **LIMITATIONS OF THE STUDY**

- This is a public sector study and the results cannot be generalized to private sector.
- Non response rate of some donors who were not willing to fill the questionnaire due to time constraints.

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## ANNEXURE

## TIME SCHEDULE

| S.No | Name Of The Department                                                                    | Date Of Visit | % Of Time Spent | Name Of Person And Designation                                                                                                                                                                                                               |
|------|-------------------------------------------------------------------------------------------|---------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Out Patient Department*Welfare Cell                                                       | 3 /4/2015     | Whole Day       | Dr .R .P Singh(Nodal Officer)                                                                                                                                                                                                                |
| 2    | Public Relations Cell                                                                     | 4/4/2015      | 2 Hour          | Mr .Abhishek Soti(Public Relations Officer),<br>6 APRO,3JRO,5 Receptionist                                                                                                                                                                   |
| 3    | Patient Employee Deposit                                                                  | 6/4/2015      | 1 Hour          | Dr. R.P. Singh(Chief Supervisor Officer)                                                                                                                                                                                                     |
| 4    | Department Of Emergency Medicine                                                          | 8/4/2015      | 1 Hour          | Mrs. Manju(Sister Incharge, EMO (2 EMO In 3 Shifts),APRO-1,Grade-6,Grade-II Sister Nurses-15,,Hospital Attendant -10, Sanitary Workers -7                                                                                                    |
| 5    | Civil Engineering Department                                                              | 10/4/2015     | 1 Hour          | Mr .P .K Gupta ,EE(Civil)                                                                                                                                                                                                                    |
| 6    | In Patient Departments(Main Hospital)                                                     | 25/6/2015     | 2 Hours         | Mrs. .Leela Masih(Nursing Supervisor)<br>Indu (Nursing Superintendent)                                                                                                                                                                       |
| 7    | In Patient Departments(PMSSY Block)                                                       | 25/6/2015     | 1 Hour          | Mrs .A.D .Wardhe(Sister Incharge)                                                                                                                                                                                                            |
| 8    | Dialysis Unit(Main Hospital)                                                              | 13/4/2014     | 1 Hour          | Dr. K .Jamal(Public Relations Officer)                                                                                                                                                                                                       |
| 9    | PMMSY Block(Operation Theatre Complex)                                                    | 26/6/2015     | 2 Hour          | Mrs .Mithlesh (Sister Incharge)                                                                                                                                                                                                              |
| 10   | Echo Lab                                                                                  | 20/4/2015     | 1 Hour          | Mrs .Neema Pant(Sister Incharge)                                                                                                                                                                                                             |
| 11   | Cath Lab                                                                                  | 21/4/2015     | 1hour           | Ravi(Technician)                                                                                                                                                                                                                             |
| 12   | Horticulture Department                                                                   | 22/4/2015     | 1 Hour          | Mr.R.K.Tripathi,DD(H)Chairperson                                                                                                                                                                                                             |
| 13   | Department Of Electrical Work                                                             | 23/4/2015     | 2 Hour          | Mr.A.K .Ee(Electrical)                                                                                                                                                                                                                       |
| 14   | Hospital Information System                                                               | 24/4/2015     | 2 Hour          | Sri.A.K .Sarkar(Senior System Analyst)                                                                                                                                                                                                       |
| 15   | Department Of Bio Informatics And Biostatics                                              | 27/4/2015     | 1 Hour          | Prof C.M .Pandey                                                                                                                                                                                                                             |
| 16   | House Keeping Services(Outsourced)                                                        |               |                 | Mr .B.P Sharma (Senior Sanitary Inspector)                                                                                                                                                                                                   |
| 17   | Bio-Medical Waste Management                                                              | 27/5/2015     | 2 Hour          | Prof .T.N .Dhole (Chairman, BMW)                                                                                                                                                                                                             |
| 18   | Medical Records Department                                                                | 2/6/215       |                 | Mrs. Rani Chakravorty(Sr.Medical Research officer),Mr .Abhimanyu Yadav(Sr.EO),M.R.T(2),L.D.A,Hospital attendant(5)                                                                                                                           |
| 19   | Nursing Care And Ward Management                                                          | 28/4/2015     | 3 Hour          | Nursing Supervisor -Mrs.Leela Masih,Mrs,Indu(Nursing Supritendent)                                                                                                                                                                           |
| 20   | Security And Cctv                                                                         | 29/4/2015     | 1 Hour          | Prof Hem Chandra                                                                                                                                                                                                                             |
| 21   | Fire Control                                                                              | 18/5/2015     | 1 Hour          | Sri A.K.Singh                                                                                                                                                                                                                                |
| 22   | Cssd                                                                                      | 19/5/2015     | 2 Hour          | Mr. Sunil Sishoo (Department Superintendent),4 Csr Assistant,Attendent -2,Hospital Attendent-5,1 Senior Clerk Udc,Assistant Nursing Supritendent,4 Operation Room Assistant (Ex-Service Man)10 Attendent(Patient Helper),1 Computer Operator |
| 23   | Kitchen Services(Outsourced)M/S Hotel Rajasthan                                           | 18/5/2015     | 1 Hour          | Management Staff-10-12(Sr.Manager Mr.Madhav Bhimsara),Supervisor-4-5,Storekeeper-(3-4)                                                                                                                                                       |
| 24   | Central Mechanical Maintenance Cell(Outsourced Messers H.D Group)                         | 29/4/2015     | 1 Hour          | Mr.M.N Shukla (Assistant Engineer ), 3 Attendent                                                                                                                                                                                             |
| 25   | Gas Plant(Manifold Services)                                                              | 18/5/2015     | 2 Hour          | Mr.M.N Shukla (Assistant Engineer ),M.Chaubey(Messers Unissi India Ltd.)                                                                                                                                                                     |
| 26   | Transport Services(Divided In OPD ,Internal Transport,O.T,External Transport,PMSSY Block) | 22/5/2015     | 1 Hour          | Mr.R.K.Yadav(Assistant Commandant,Ex-Serviceman)                                                                                                                                                                                             |
| 27   | Department Of Telemedicine                                                                | 22/5/2015     | 2 Hour          | Mr .Ripu Daman(Nodal Officer)                                                                                                                                                                                                                |
| 28   | Linen And Laundry Services(Outsourced)                                                    | 19/5/2015     | 3 Hour          | Mr.Vinod Chopra                                                                                                                                                                                                                              |
| 29   | Department Of Transfusion Medicine(Quality Control Lab)                                   | 30/4/2015     | 2 Hour          | Prof R.K. Choudhary(H.O.D)                                                                                                                                                                                                                   |
| 30   | Critically Care Medicine Complex(Main Hospital)                                           | 27/5/2015     | 2 Hour          | Sister Nath(Ward Incharge)                                                                                                                                                                                                                   |
| 31   | Hospital Revolving Fund                                                                   | 14/5/2015     | 1 Hour          | Mr.V.K.Jaiswal(Senior Store Purchase Officer)                                                                                                                                                                                                |
| 32   | Investigation Revolving Fund                                                              | 15/5/2015     | 2 Hour          | Mr.N.R.Kasliwal(Senior Purchase officer,(IRF)                                                                                                                                                                                                |
| 33   | Plastic Surgery And Burns Unit                                                            | 28/5/2015     | 1 Hour          | Mrs.Promila John(Sister Incharge)                                                                                                                                                                                                            |

|    |                    |           |         |                                           |
|----|--------------------|-----------|---------|-------------------------------------------|
| 34 | Hospital Accounts  | 29/5/2015 | 1 Hour  | Mr.S.K Asthana(Senior Accounts Officer)   |
| 35 | Telephone Exchange | 29/5/2015 | 25 Min. | Er.P.C.Gupta Executive Engineer ,Telecom) |



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SCIENCES,  
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2668017,2668719**

**Ref: SGPGI/HA/Misc/**

**Date: 5.5.15**

**Sub: Assignment of administrative rounds for trainees , Department of Hospital  
Administration : May 2015**

**Area Round-Circular**

The trainees (May 2015 batch) are hereby being assigned with the following hospital areas in the **SGPGIMS** for their Administrative Training, as detailed below.

The following trainees shall under the rounds as one group:-

1. Dr. Rabia Ahmed Parveen
2. Dr. Mansi Soni
3. Dr. Priyanka Shukla

They are to make a presentation with slides of each area after the completion of one month . They also will have to maintain the log book of the under mentioned areas.

| Sl. No. | Name of the Indoor Area                                     | Duration/days             |
|---------|-------------------------------------------------------------|---------------------------|
| 1. 1    | OPD( main Hospital)                                         | 07.5.15- 09.5.15( 3 days) |
| 2. 2.   | GI surgery ward+<br>GI medicine ward+<br>Emergency Services | 11.5.15-13.5.15( 3 days)  |
| 3.      | HRF+IRF                                                     | 14.5.15-15.5.15( 2 days)  |

|     |                                                                                      |                           |
|-----|--------------------------------------------------------------------------------------|---------------------------|
| 4.  | Review of study progress: 16.5.15( Saturday)                                         |                           |
| 5.  | Manifold services+ Dietary Services                                                  | 18.5.15                   |
| 6.  | CSSD+ Laundry Services                                                               | 19.5.15- 20.5.15( 2 days) |
| 7.  | All OTs( main hospital) + ICU complex + MICU                                         | 21.5.15-23.5.15( 3 days)  |
| 8.  | All inpatient wards main hospitals excluding ground floor                            | 25.5.15-26.5.15( 2 days)  |
| 9.  | PMSSY block :All OT services( first floor) Pediatric Surgery ward+                   | 27.5.15                   |
| 10. | PMSSY block: MRH ward +Neonatology ward( second floor)                               | 28.5.15                   |
| 11. | PMSSY block Plastic Surgery& Burns ward+ Pulmonary medicine ward (third floor) + ICU | 28.5.15-29.5.15(2 days)   |
| 12. | Final presentation of study and area presentation: 30.5.15                           |                           |

- The DHA residents will guide the trainees for better understanding of the areas
- It is compulsory for trainees to attend academic lectures during the tenure
- Data collection for study/dissertation must also be undertaken simultaneously and independent of the area rounds.

The nodal officers/Supervisors/ coordinators are requested to provide required information to the trainees on the following aspects:

1. Management input
2. Policies and procedures
3. Equipment maintenance
4. Work Load & Output
5. Any other pertinent information
6. Bottleneck, if any.

**(Prof. Hem Chandra)**

**Head, Department of Hospital Administration,  
SGPGIMS**

**Distribution:**

- All trainees, Hospital Administration : For Compliance

**Copy:**

- Dr. R. Harshvardhan, Assistant Prof., Hospital Administration
- Dr. P. Kumar, Assistant Prof., Hospital Administration
- Department Notice Board
- Nodal Officers and sister –in-charges of all areas concerned are requested to grant permission to the students to conduct rounds for academic purposes.

**Department of Hospital Administration**

**SANJAY GANDHI POST**

**GRADUATE INSTITUTE OF MED. SCIENCES**

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**BLOOD DONOR QUESTIONNAIRE**

**BLOOD CENTRE- GANDHI INSTITUTE OF MEDICAL SCIENCES, LUCKNOW, U.P.**

*Thank you for coming as a blood donor and safety as recipients of your blood please read the following leaflet and answer the following questions correctly. All information provided by you shall be kept confidential. You are free to ask any query related to the questionnaire.*

Donor ID:

Age :< 40

>40

Gender: MALE

FEMALE

Marital: Married  Non Married:

Vegetarian

: Yes

No

Smoker

Yes  NO

Alcoholic Yes  No

Did you use the parking services of SGPGIMS?

Yes  No

I am employed in:

Private Firm ☐

Government organization ☐

Self employed ☐

Others ☐

✓ Mark on any one of the boxes:

**I have come to donate blood here because**

My patient needs blood ☐

☐  
Advertisement in magazine

My Friends were donors ☐

☐  
I am influenced by the colleagues

My Relatives were Donors ☐

☐  
Membership in Voluntary activity

I have received transfusion in the past ☐

Recommendation from healthcare professionals ☐

**QUESTIONS:**

1. How would you rate the usual wait for an appointment to be called for measurement of body weight and hemoglobin at the blood centre?

Very poor ☐ poor ☐ fair ☐ good ☐ very good ☐  
excellent ☐

2. How would you rate the usual wait for filling the donor health questionnaire?

Very poor ☐ poor ☐ fair ☐ good ☐ very good ☐ excellent ☐

3. How would you rate the usual wait for the screening process to be completed?

Very poor ☐ poor ☐ fair ☐ good ☐ Very good ☐  
Excellent ☐

4. How would you rate the usual wait for being called for blood collection?

Very poor ☐ poor ☐ Fair ☐ Good ☐ Very good ☐

Excellent ☐

5. How would you rate the behavior of the staff and their cooperation during the blood donation process?

Very Poor ☐ poor ☐ fair ☐ good ☐ very good ☐  
excellent ☐

6. How would you rate the behavior of the medical officer during explanation about the blood donation procedure?

Very poor ☐ poor ☐ fair ☐ good ☐ very good ☐ excellent ☐

**How do you find the following facilities at the blood centre:**

7. Waiting area (no of chairs available) to take rest: very poor ☐ poor ☐ fair ☐  
good ☐ verygood ☐ excellent ☐

8. News papers provision : very poor ☐ poor ☐ fair ☐ good ☐  
very good ☐ excellent ☐

9 Provision of leaflets, pamphlets to make you aware of the blood donation process and one can you be rejected to donate blood? very poor ☐ poor ☐ fair ☐  
good ☐ very good ☐ excellent ☐

10. Charts displayed on the walls: very poor ☐ poor ☐ fair ☐ verygood ☐  
excellent ☐

11. Light arrangement in the blood centre : very poor ☐ poor ☐ fair ☐  
good ☐ very good ☐ excellent ☐

12. Donor couch Comfort: very poor ☐ poor ☐ fair ☐ good ☐ very  
good ☐ excellent ☐

13. Refreshments given after the blood donation procedure:

Very poor ☐ poor ☐ fair ☐ good ☐

Very good ☐ excellent ☐

14. Cleanliness of the blood centre: very poor ☐ poor ☐ fair ☐ good ☐  
very good ☐ excellent ☐

**What do you think about the services of the blood centre during the blood withdrawal process:**

15. The puncture site should be cleaned properly by an antiseptic during blood withdrawal process?

Strongly agree ☐ disagree ☐ neutral ☐ disagree ☐  
strongly disagree ☐

16. The second puncture should only be done if required only with my permission?

Strongly agree ☐ disagree ☐ neutral ☐ disagree ☐ strongly disagree ☐

17. I feel the episode of fainting should be reported and taken care of quickly during the donation process?

Strongly agree ☐ disagree ☐ neutral ☐ disagree ☐ strongly disagree ☐

18. I feel the episode of swelling should be reported and taken care of quickly during the donation process?

Strongly agree ☐ disagree ☐ neutral ☐ disagree ☐ strongly disagree ☐

19. There is a likelihood that I will return to donate blood if necessary in the next 6 months, after the experience of today in the blood centre?

Strongly agree ☐ disagree ☐ neutral ☐ disagree ☐ strongly ☐  
disagree

✓ Mark in the following:

20. How satisfied are you with overall experience today?

Not at all Satisfied ☐

Somewhat satisfied ☐

Satisfied ☐

Very much satisfied ☐