

**Summer Training at
Medanta the Medicity
Gurgaon, Haryana
(April 1–May 31, 2014)**

- **A Cross – Sectional Study of Records of Patients With Pressure Ulcers For Relevant Findings, Done At Two Different Points of Time**
- **A Study to determine Percentage of Patients At Various Levels of Risk of Developing Pressure Ulcers**

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**Under the guidance of
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**MBA- Hospital & Health Management (MBA-HM)
2013-2015**



**The IIHMR University, Jaipur
2014**

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CERTIFICATE

This is to certify that **Dr. Puja Jain** has undergone her summer training in **Medanta the Medicity hospital, Gurgaon**, from 1st April, 2014 to 31st May, 2014. The candidate herself carried out all the studies related to her summer training. Her approach to the study has been scientific and analytical. This summer training is in the partial fulfilment of the course requirement recommended for the award of Post Graduate Diploma in Hospital and Health Management with specialisation in Hospital Management.

I wish her success in all her future endeavours.



Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affairs)

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Assistant Professor

IIHMR Jaipur



Global Health
Private Ltd.

Date: 05th June' 2014

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Puja Jain** has completed her 2 months Internship in the department of **Medical Administration** from **01st April' 2014** to **31st May' 2014** with **Global Health Private Limited (GHPL), Medanta The Medicity Hospital, Gurgaon (Haryana).**

Very truly yours

For **Global Health Private Limited**


Mrs. Arvinder Bagga

VICE PRESIDENT - HR

Acknowledgement

I, Puja Jain, a student of PGDHM 18th batch at IIHMR Jaipur, would like to sincerely express my gratitude to:

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Dr. Sunaina Singh, senior manager, for being my mentor and guide in Medanta, for the entire project and even during the implementation phase. She helped me push through even when there was resistance to change by few, and ultimately was able to get even their support.

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Lastly, I would like to thank my college, IIHMR Jaipur, for providing me with an opportunity to learn and work with the best personnel in the hospital industry, and for helping me gain an appreciation of, where I currently stand as an administrator and how much work I would need in order to meet the quality specifications that the hospital industry seeks

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1. Acronyms/Abbreviations

- BP: Blood Pressure
- CABG: Coronary Artery Bypass Graft
- CAI: Community Acquired Infection
- Cath Lab: Catheterization Laboratory
- DSA Lab: Digital Subtraction Angiography Lab
- ERCP: Endoscopic Retrograde Cholangio Pancreatography
- EUS: Endoscopic Ultra Sound
- GHPL : Global Health Care Private Limited
- HAI: Hospital Acquired Infection
- HCC: Heart Command Centre
- HDU: High Dependancy Unit
- IAD: Incontinence Associated Dermatitis
- ICU: Intensive Care Unit
- IPD : In- Patient Department
- Hb : Haemoglobin
- MLC : Medico-Legal Cases
- OPD: Out-Patient Department
- OT : Operation Theatre
- POCU: Pre Operative Cardiac Unit
- PTCA: Per Cutaneous Transluminal Coronary Angioplasty
- PU: Pressure Ulcer
- RH +ve : Rhesus Factor Positive
- RH -ve : Rhesus Factor Negative
- RBC : Red Blood Cell
- UG Floor: Upper Ground Floor
- WB: Whole Blood

2. Observation learning

2A. Introduction

The summer training is an integral part of the course curriculum of PGDHM at IIHMR Jaipur. As part of the course, students at the end of their first year are required to undergo training of two months to get an in-depth exposure to the various departments in the organization, as well as take up projects as per the requirements of the organization where the students get training. The most crucial aspect is to build a base of knowledge about the structure and functioning of the hospital, which can be used to understand and apply concepts in the subsequent study tenure at IIHMR Jaipur.

During my summer training at Medanta – The Medicity, Gurgaon, there were numerous learning experiences. These were enhanced due to the project undertaken at the hospital, which included two studies:

- A cross- sectional study of records of patients with pressure ulcers for relevant findings, done at two different points of time.
- A study to determine percentage of patients at various levels of risk of developing pressure ulcers.

A brief report of the training of two months is presented below with the details of tasks undertaken and lessons learnt during the training.

2B. Organization Profile

Medanta the Medicity, a multi-super-specialty hospital, is one of India's largest healthcare projects in multi-specialty tertiary care medical treatment, and has been envisioned as an institute that will redefine standards of excellence in healthcare delivery by bringing together the best of infrastructure, technology, training, education and medical intelligentsia. With an investment of over \$350 million, Medanta the Medicity aims to create a world class education and training centre backed by remarkable infrastructure, futuristic technology and the extraordinary vision of the eminent cardiac surgeon, Dr Naresh Trehan – Chairman and Managing director of Global Health Private Limited (GHPL).

Located across 43 acres, Medanta is the new international healthcare destination in the National Capital Region of New Delhi – Gurgaon. Medicity is a 1250 bed medical institute at par with world standards. The objective of the Medicity is to bring in global healthcare delivery standards at affordable prices, while firmly placing India on the international

roadmap as a premier destination for healthcare services, medical research and high-end medical diagnostics.

Specialties covered

Medanta provides integrated primary, secondary and tertiary care services spanning over 29 super specialties and high-end services covering every aspect of human health, housing 10 Institutes, 8 Divisions and 11 Departments.

- Institutes
 - The Medanta Heart Institute.
 - The Medanta Institute of Neurosciences.
 - The Medanta Bone & Joint Institute.
 - The Medanta Kidney & Urology Institute.
 - The Medanta Cancer Institute.
 - The Medanta Institute of Digestive & Hepatobiliary Sciences.
 - The Medanta Institute of Minimally Invasive Surgeries.
 - The Medanta Institute of Transplant & Regenerative Medicine.
 - The Medanta Institute of Critical Care & Anaesthesiology.
 - The Vattikuti Institute of Robotic Surgery.
- Departments
 - Department of Clinical Immunology & Rheumatology.
 - Department of Pathology & Laboratory Medicine.
 - Department of General Surgery.
 - Department of Internal Medicine.
 - Department of Dental Surgery.
 - Department of Physiotherapy & Sleep Medicine.
 - Department of Transfusion Medicine (Blood Bank).
 - Department of Pediatric Gastroenterology, Hepatology & Liver Transplantation.
 - Department of ENT & Head Neck Surgery.
 - Department of Physiotherapy & Rehabilitation.
 - Department of Ophthalmology.
- Divisions
 - Division of Endocrinology & Diabetes.
 - Division of GI & Bariatric Surgery.
 - Division of ENT & Head Neck Surgery.
 - Division of Peripheral Vascular & Endovascular Sciences.
 - Division of Gynaecology & Gynaec-oncology.
 - Medanta Breast Services.
 - Division of Plastic, Aesthetic and Reconstructive Surgery.
 - Division of Radiology & Nuclear Medicine

Uniqueness of Medanta- the Medicity

Medanta aims to functionally integrate within one campus and one management, the facilities of medical care, teaching as well as research and development.

It also offers to explore the possibility of integrating knowledge of traditional and alternative medicine with modern medicine, through means of scientific research.

Medanta the Medicity is led by Dr Naresh Trehan, one of the leading luminaries in the medical world. Dr Trehan is a recipient of various national and international awards for excellence, including the highest national awards, Padma Shri and Padma Bhushan, in recognition of his distinguished service to the nation. Dr. Trehan has also served as the personal surgeon of the President of India since 1991 and was formerly the President of the International Society for Minimally Invasive Cardiac Surgery (ISMIC)

The Medicity team has attracted some of the most distinguished names in medical and non-medical fields from all over the world.

Infrastructure

Medanta-The Medicity is spread across 43 acres, has 45 operating theatres, 1250 beds including 350 critical care beds.

Education

An initiative is currently underway of building a full-fledged medical college, the objective of which will be to produce highly competent general physicians and specialists who would be socially sensitive and fully committed to the principles of medical ethics. This establishment would also make every attempt to erase the dividing line between clinical and non clinical areas.

Research and Development

The Medicity will have a state-of-the-art research and development centre integrated with the hospital and the teaching establishment. It is planned to be one of the best funded, staffed and managed medical R&D centre in the country. Its Research Advisory Committee will consist of 12 members from amongst the best known names in modern biology, including various areas of medicine.

Traditional Medical practices

An important objective of Medicity is to validate - and integrate with modern medical system – those medical practices in our traditional and complimentary systems of medicine such as Ayurveda, Unani, Siddha, Tibetan and Tribal Systems that are compatible with science.

Vision and Values

‘The Institution is governed under the guiding principles of providing affordable medical services to patient with care, compassion and commitment

Technology

- 256 Slice CT
- Brain Suite, Intra-Operative Imaging Operating Theater
- Da Vinci Robot for Minimal Invasive Surgery
- Artis- Zeego Endovascular Surgical Cath Lab
- 4 Linear Accelerators (provision for IGRT/ IMRT) (Radiation Surgery)
- Tomotherapy
- Integrated Brachytherapy Unit with remote controlled HDR
- 3.0 Tesla MRI
- PET CT
- Gamma Camera
- Digital X-Ray, Fluoroscopy, Bone
- Densitometry
- 3D and 4D Ultra Sound
- Digital Mammography

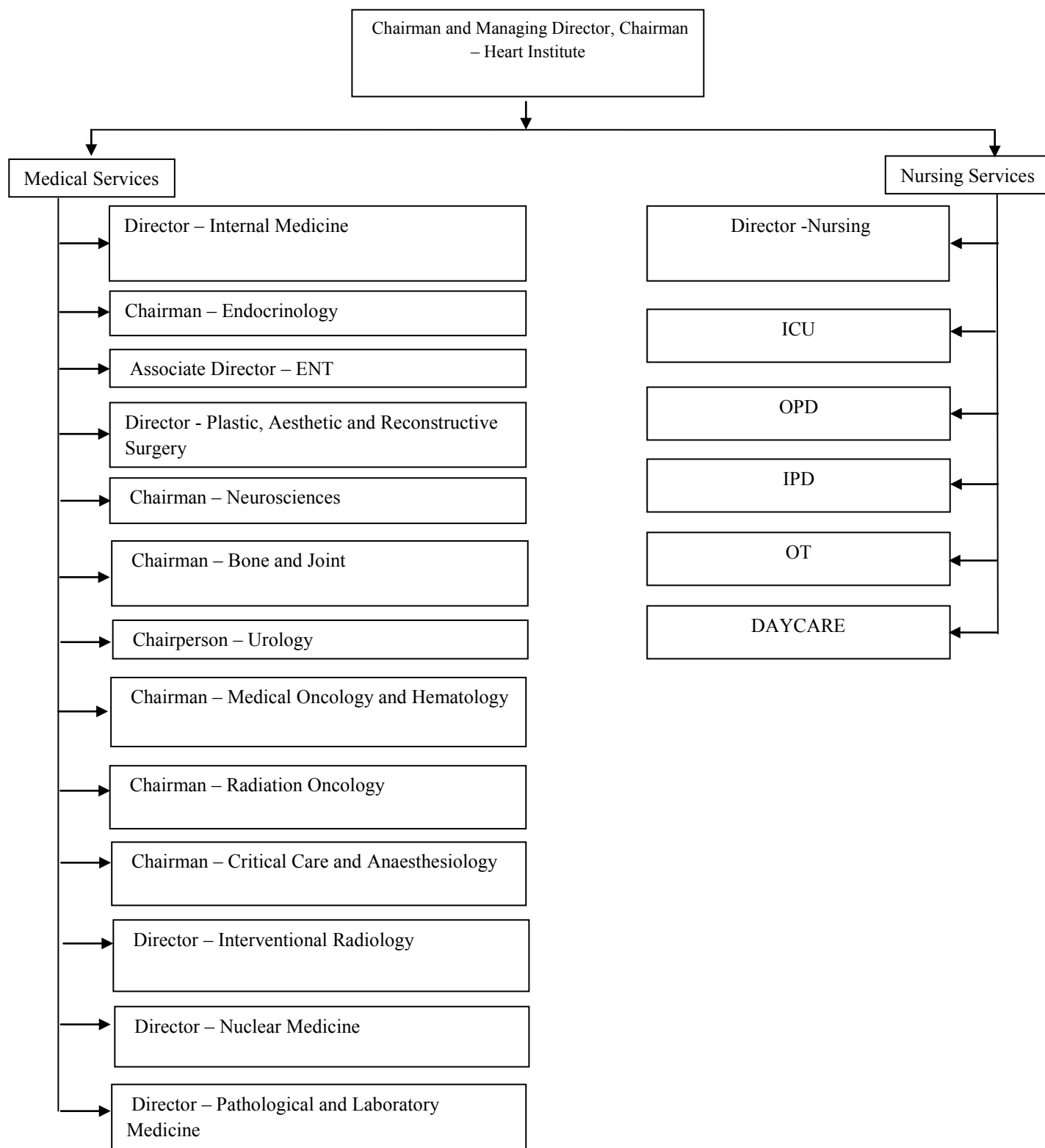
Affiliations

- Medanta the Medicity has entered into a corporate alliance with 'Duke Medicine' with the objective of providing a platform for high end research practices and clinical trials.
- The Medanta Duke Research Institute (MDRI) is a world class early phase clinical research facility at Medanta the Medicity. MDRI guarantees to offer an environment conducive for exploring the technologies of traditional medicines in synchronization with modern medicine aids for research and development in the areas of healthcare and health recovery.
- It is proposed to be a 60-bedded facility built in an area of 27,000 sq. ft. within the premises of Medanta. To unlock its potential, MDRI will be undertaking immediate early phase clinical studies in three countries with diverse populations.
- The results of such a research will be paramount for all subsequent studies that can play a decisive role in changing the face of healthcare across the world.

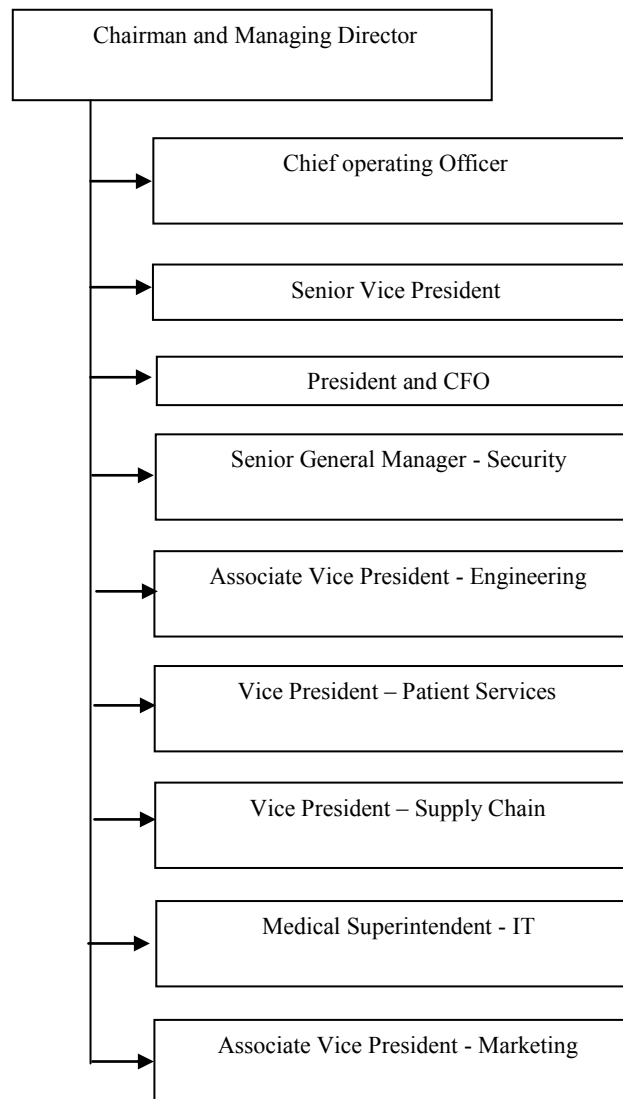
On the first day of internship all interns had to collectively report to Dr. Sumanna, deputy medical superintendant of Medanta. She then allotted buddies to us. Dr. Siddharth- floor manager 14th and 15th floor was my buddy, who planned and coordinated the visits to various departments and helped me get an orientation of the hospital.

2C. Organogram and Hierarchy

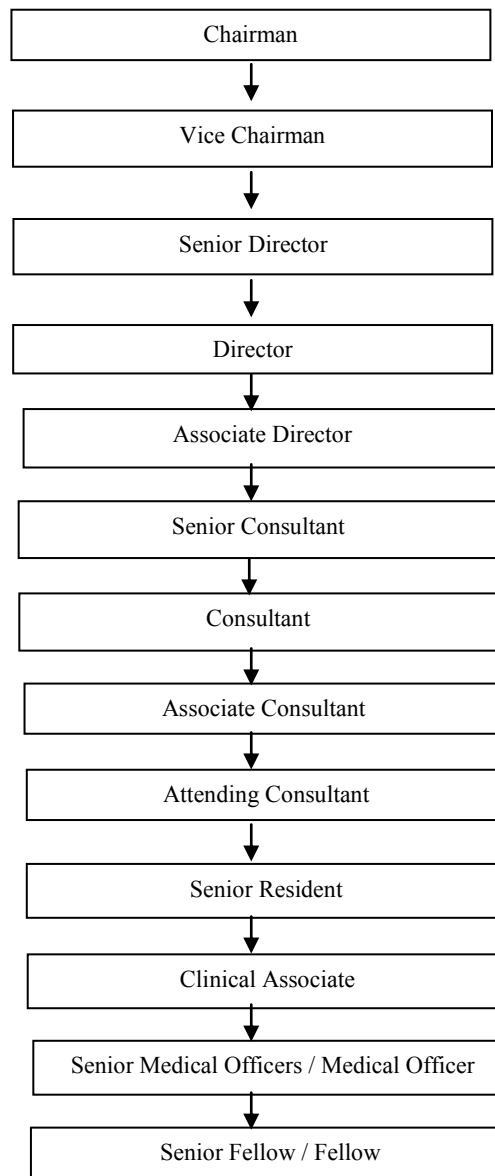
a) Clinical Organogram



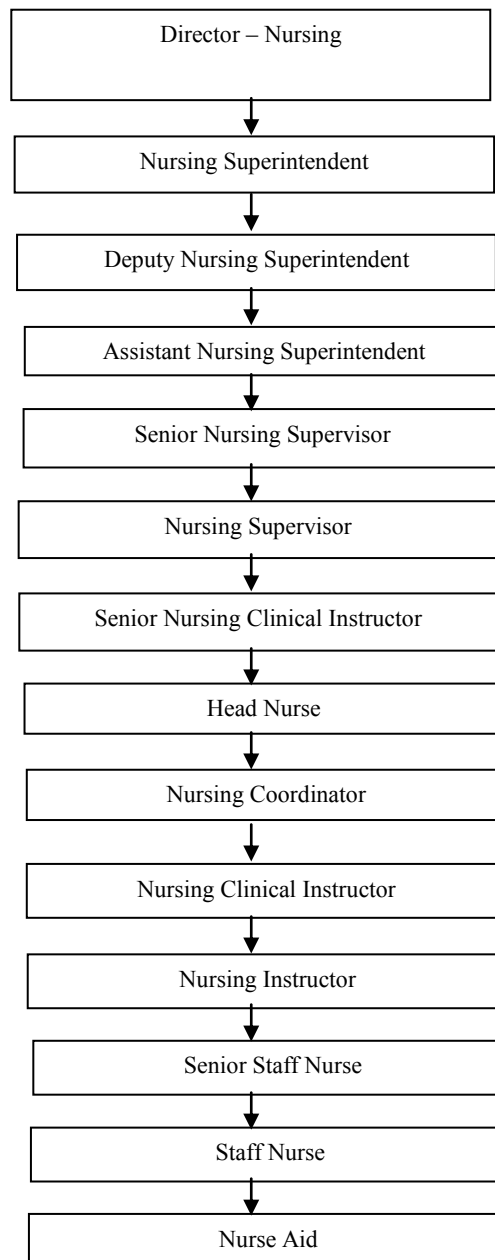
b) Non-Clinical Organogram



c) Organizational Hierarchy followed by Clinical Team



d) Nursing Manpower Hierarchy



2D. Overview of various departments and their process flows

Table no.1: Floor-wise Clinical Layout

Floor	Specialties Available/ Institute
Lower Ground	Radiation Oncology
Upper Ground	Blood Bank, OPD Pharmacy, Emergency, Sample Collection, International Patient Services, Admissions, Radiology, Nuclear Medicine
1	Operation Theatres and Intensive Care Units
2	Preventive Health Check-up
3	Heart Institute
4	ENT and Head and Neck Surgery, Institute of Plastic and Reconstructive Surgery, Institute of Mental Health and Quality, Gynaecology and Gynaecology, Minimally Invasive Surgery and Department of Integrative Medicine
5	Department of Endocrinology and Diabetes, Dermatology, Rheumatology and Clinical Immunology, Respiratory and Sleep Medicine, Peripheral, Vascular and Endovascular Sciences
6	Institute of Neurosciences
7	Bone and Joint Institute
10	Cancer Institute
11	Institute of Digestive and Hepatobiliary Sciences
12	Institute of Nephrology and Urology
14	Liver Transplant

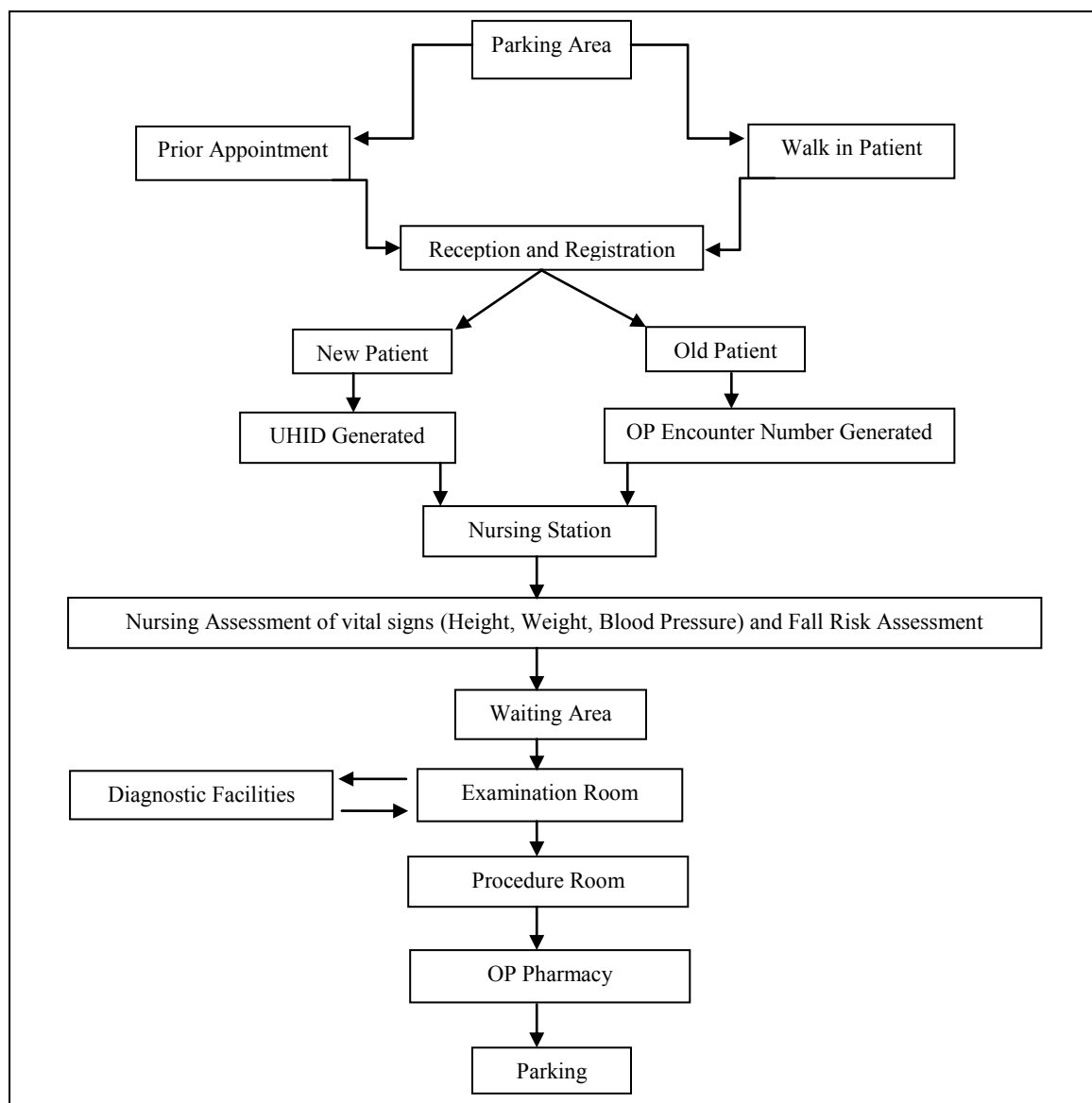
I will attempt to present my general findings in the form of process flow sheets, in the order of my visit to the departments.

a) OPD:

As has been mentioned earlier in this report, it can be said that each floor of Medanta houses a separate institute of clinical excellence. Each institute has its own OPD area as well as IPD area / day-care area wherever applicable.

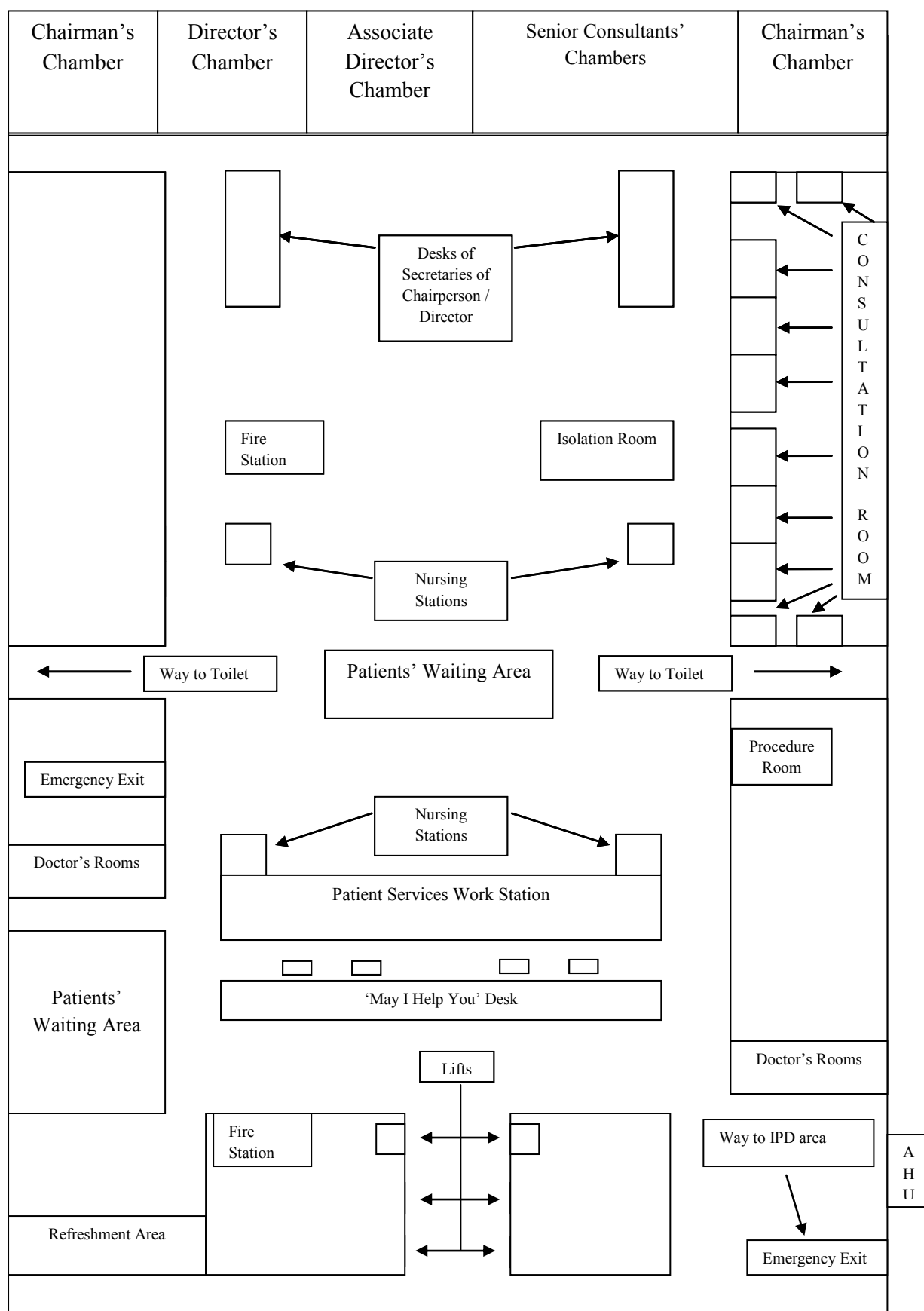
The general process flow that is followed in all the OPDs is as follows:

Figure 1: OPD Process Flow



The number of OPDs varies from institute to institute, but each OPD has approximately been planned in the same way. A sample layout of an OPD is as follows.

Figure 2: OPD Layout



As mentioned earlier, each floor has its own OPD. However, the 10th floor and the 12th Floor have Day care facilities as well. Every floor has a procedure room and its own Front Desk. Appointments are centralized and are recorded on the Hospital Information Management System. As soon as appointments are fixed, a text message is sent to the patient confirming the appointment, and a reminder message is sent on the day before the appointment. No walk-in patient is turned away, and the staffs try to accommodate these patients between the appointments already scheduled for the day. The daily volume is of approximately 2000-2500 patients across all the OPDs. Each floor has the capacity to handle 70-100 patients waiting. For Chairpersons and senior doctors, a junior doctor does the initial assessment of the patient, which not only reduces the workload of the senior doctors (whose slots are always overbooked), but it also gives the junior doctors an opportunity to learn from the best brains in the industry.

b) Operation Theatre:

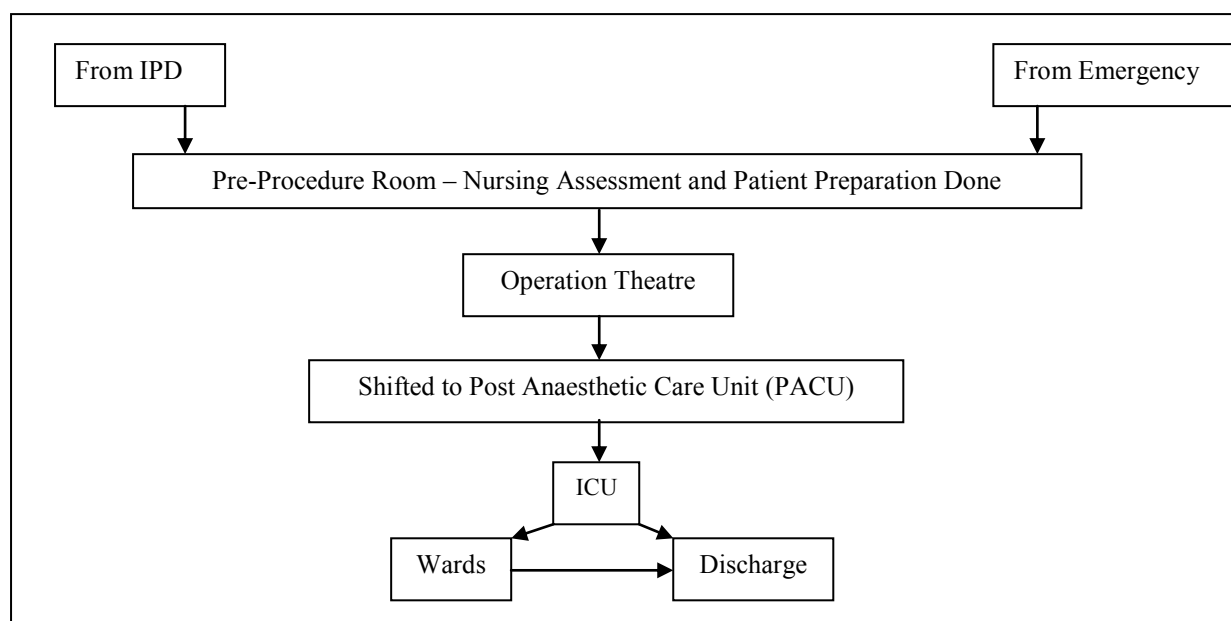
The OTs of Medanta the Medicity are situated on the 1st floor. There are currently 23 OTs functional.

Table no. 2: Speciality wise dedicated OTs in Medanta

Sr. No	OT Number	Specialty
1.	1-7	Cardiac OTs
2.	9A, 9B	Ortho OTs
3.	10, 11	Neuro OTs
4.	12 A, 12B	Liver Transplant OTs
5.	14, 15, 16	GI and General OTs
6.	17, 18, 19	Uro OTs
7.	20, 21, 22	ENT, Head and Neck, and Plastic Surgery
8.	Upper Ground Floor OT	Mixed, but majorly for Gynae and Emergency cases

Around 70-80 surgeries are performed daily. The general flow of the patient in the OT is as follows.

Figure 3: Process Flow in OT



c) Blood Bank:

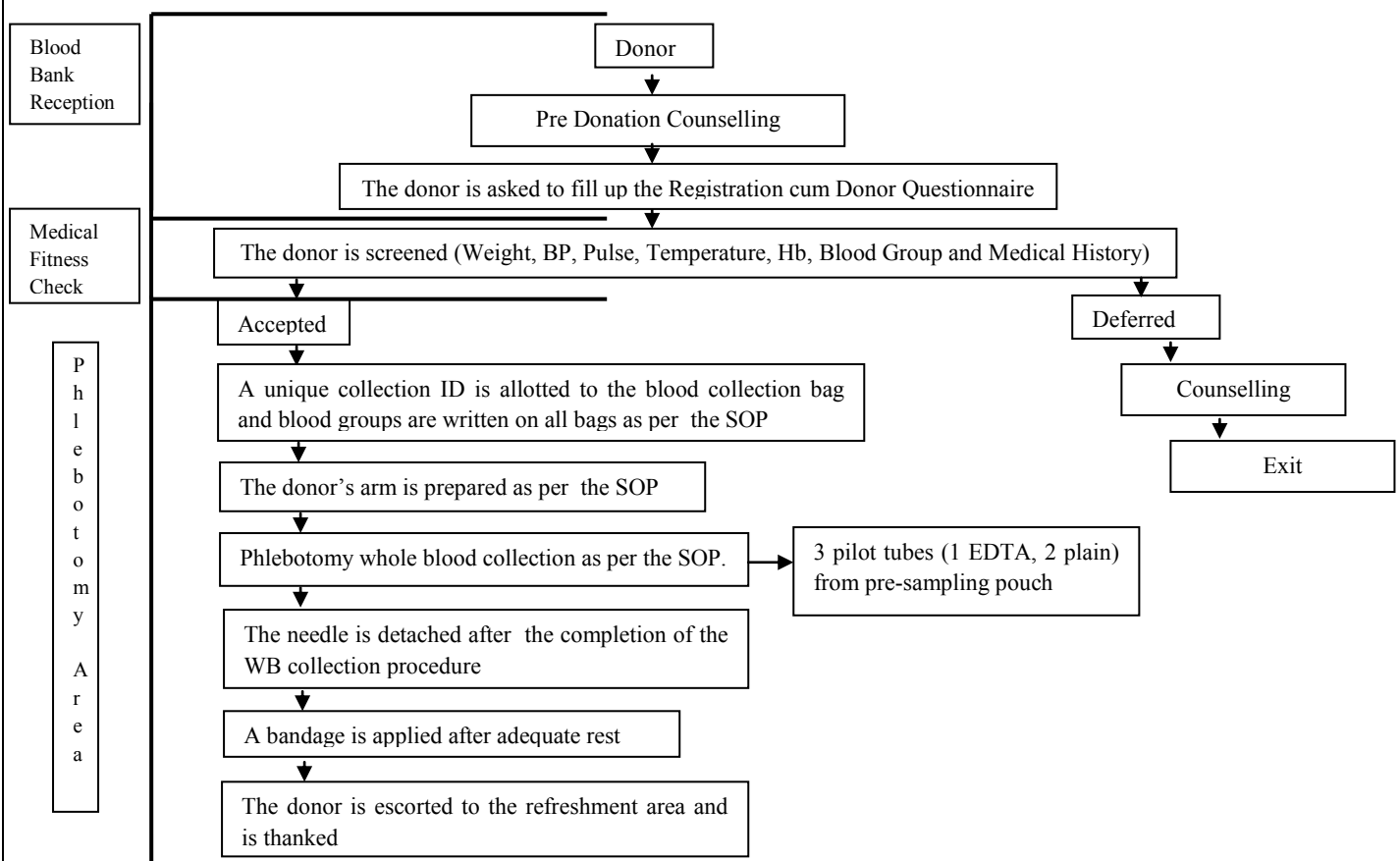
The licensing details of the Blood Bank at Medanta the Medicity are as follows

Table no. 3: Licensing details of the Blood Bank at Medanta

Sr. No	Parameter	Details
1.	License Number	67-B (H)
2.	Date	30/11/2009
3.	Validity	5 years
4.	Name of the items on License	• Whole human blood. IP • Concentrate Human RBC (Packed RBC) IP • Platelets concentrates, USP • FFP,BP • Plateletpheresis / Leukapheresis using cell separator • Cryoprecipitate
5.	Name of the competent technical staff	• Blood bank officer • Technical supervisor • Technicians • Registered Nurse
6.	Licensing authority	Haryana State Drugs Controller Under section 1940, Form 28C- Rule 122-G

The Blood Bank of Medanta the Medicity is situated on the Upper Ground floor. Medanta has a policy of asking patients to arrange for a specific amount of blood before their procedures, so that there is no possibility of a situation arising where there is a shortage of blood during a procedure. The general process flow of whole blood donation in this department has been enumerated below

Figure 4: Process Flow of Blood Donation



Instead of beds, the blood donation area had couches where patients are asked to sit and the incline of reclining can be changed as per need. Blood donation consists of WB donation and Platelet Apheresis donation. After the whole blood is collected, the blood is split into separate components, and is stored in walk-in fridges after proper labelling. The blood bags are labelled according to the following legend:

Table no. 4: Labelling of blood bags

Sr. No	Blood Group	Label Colour
1.	B	Red/ Pink
2.	A	Yellow
3.	O	Blue
4.	AB	White
5.	RH +ve	Black
6.	RH –ve	White

After splitting, the individual components can be stored for differing periods of time. Whole blood can be stored for 35-42 days, platelets can be stored for 5 days in agitators at temperature of 22 degrees Celsius, Fresh Frozen Plasma can be stored for up to 1 year at a temperature below -50degrees Celsius and RBC can be stored for 4-6 days.

d) Emergency Department:

The Emergency Department of Medanta the Medicity is situated on the Upper Ground floor, and the entrance is from a route different than the main entrance to the hospital. The rough layout of the Emergency Department is shown below.

Figure5: Layout of Emergency Department

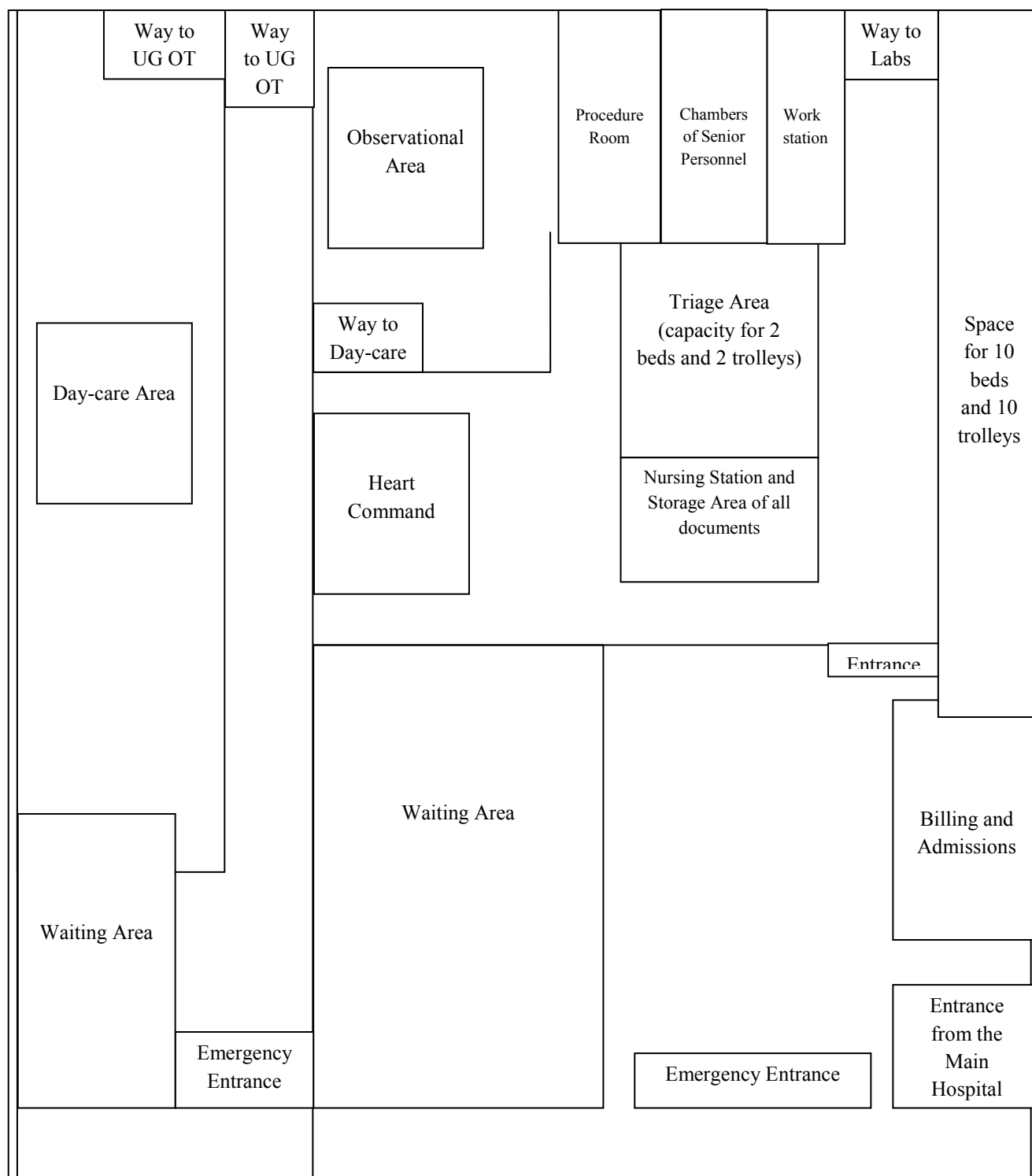


Figure6: Process flow of Emergency Department

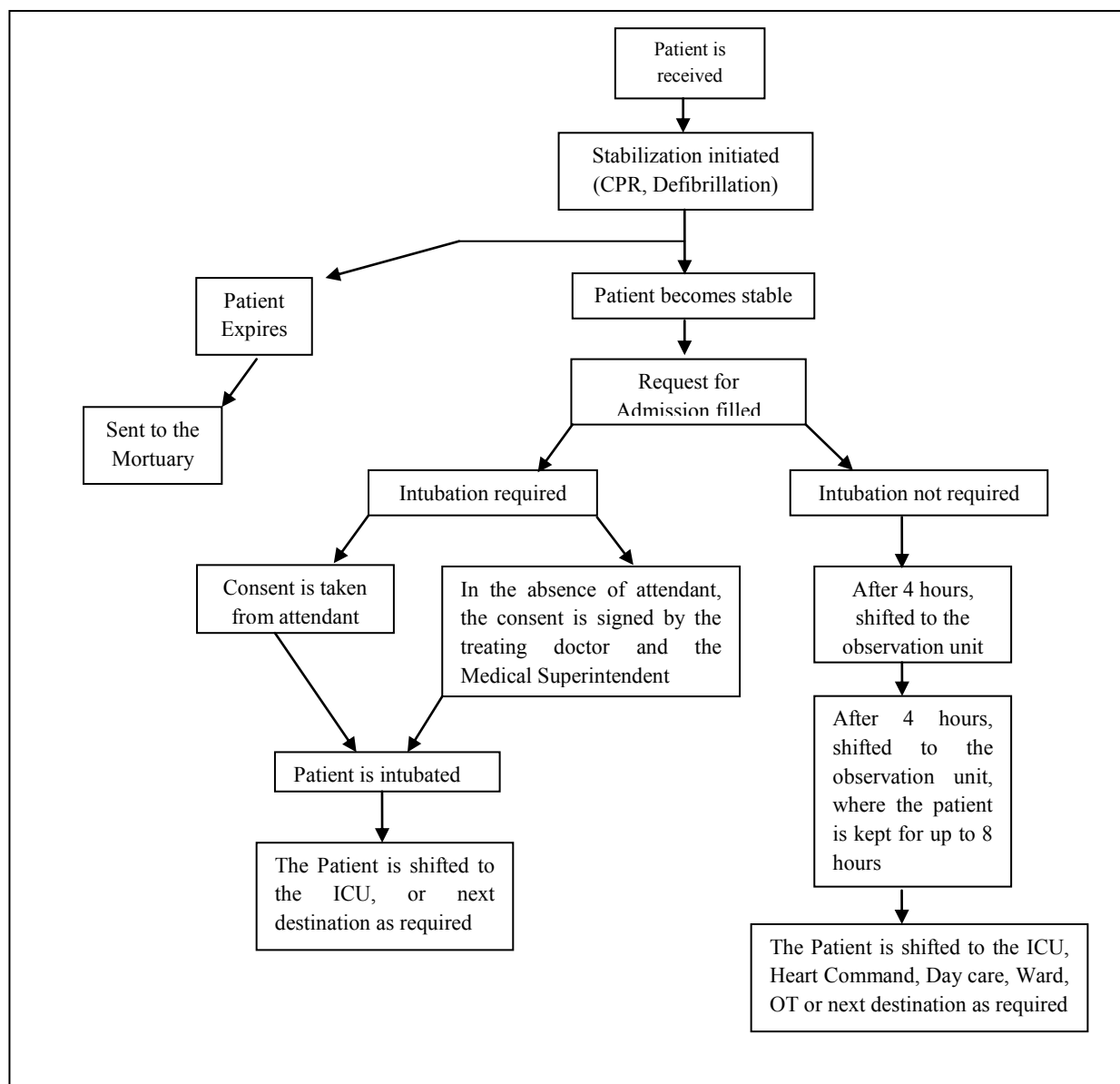


Table no. 5: Treatment acuity for various Australasian Triage Scale categories

ATS CATEGORY	TREATMENT ACUITY (Maximum waiting time)
ATS 1	Immediate
ATS 2	10 minutes
ATS 3	30 minutes
ATS 4	60 minutes
ATS 5	120 minutes

The Emergency Department at Medanta the Medicity receives about 100 cases per day. It is divided into areas as has been enumerated below.

Table no. 6: Areas in Emergency Department and their specifications

S.No.	Area	Specifications			
		No. of cubicles	No. of beds + trolleys	Mortalities /month	Others
1	Triage	10	10+10	3-9	-
2	Observational area	08	08+08	10-12	-
3	Day care	06	06+02	NIL	Recliners - 04
4	Heart command	19	19+00	15-16	-
5	Procedure room	-	01+01	-	-
6	Emergency OT	-	-	Variable	OT's- 2

The patients coming in to the emergency department are triaged according to the Australasian Triage Scale. These patients are then allotted wrist bands for colour identification according to the parameters that have been enumerated below.

Table no. 7: Colour coded wrist bands for different parameters

COLOR	INDICATION
White Band	Inpatient
Red Band	Allergy
Yellow Band	Diabetes/Kidney disease No I/V prick No measurement of BP
Blue Band	Vulnerable/ High Risk patients

The Emergency Department of Medanta the Medicity offers ambulance services, the details of which have been enumerated below.

Table no. 8: Details of ambulance services

Sr. No	Parameters	Details
1.	Number of Ambulances	8
2.	Types of Ambulances	• Basic life support • Advanced life support • Air Ambulances
3.	Air Ambulance	• Non Scheduled passenger air ambulance • 40-50 patients are brought in by through this method every month
4.	Air Ambulance Staff	• Anesthetist • Cardiologist • Emergency medical officer • Nurse

e) Endoscopy:

This department is situated on the 11th floor of Medanta the Medicity. On an average, 40-50 procedures are carried out per day, the details of which are as follows:

- 20-25 are endoscopy
- 10-12 are colonoscopy,
- 5-8 are EUS
- 5-8 are ERCP's.

Total time taken for endoscopy inclusive of the patient preparation time is around 45 minutes in which the procedure time of endoscopy is actually just 5 minutes. For EUS, the procedure time is 30-40 minutes and for ERCP the procedure time is 20-30 minutes. The process flow for this department is as follows:

Figure 7: Process Flow of Endoscopy Department

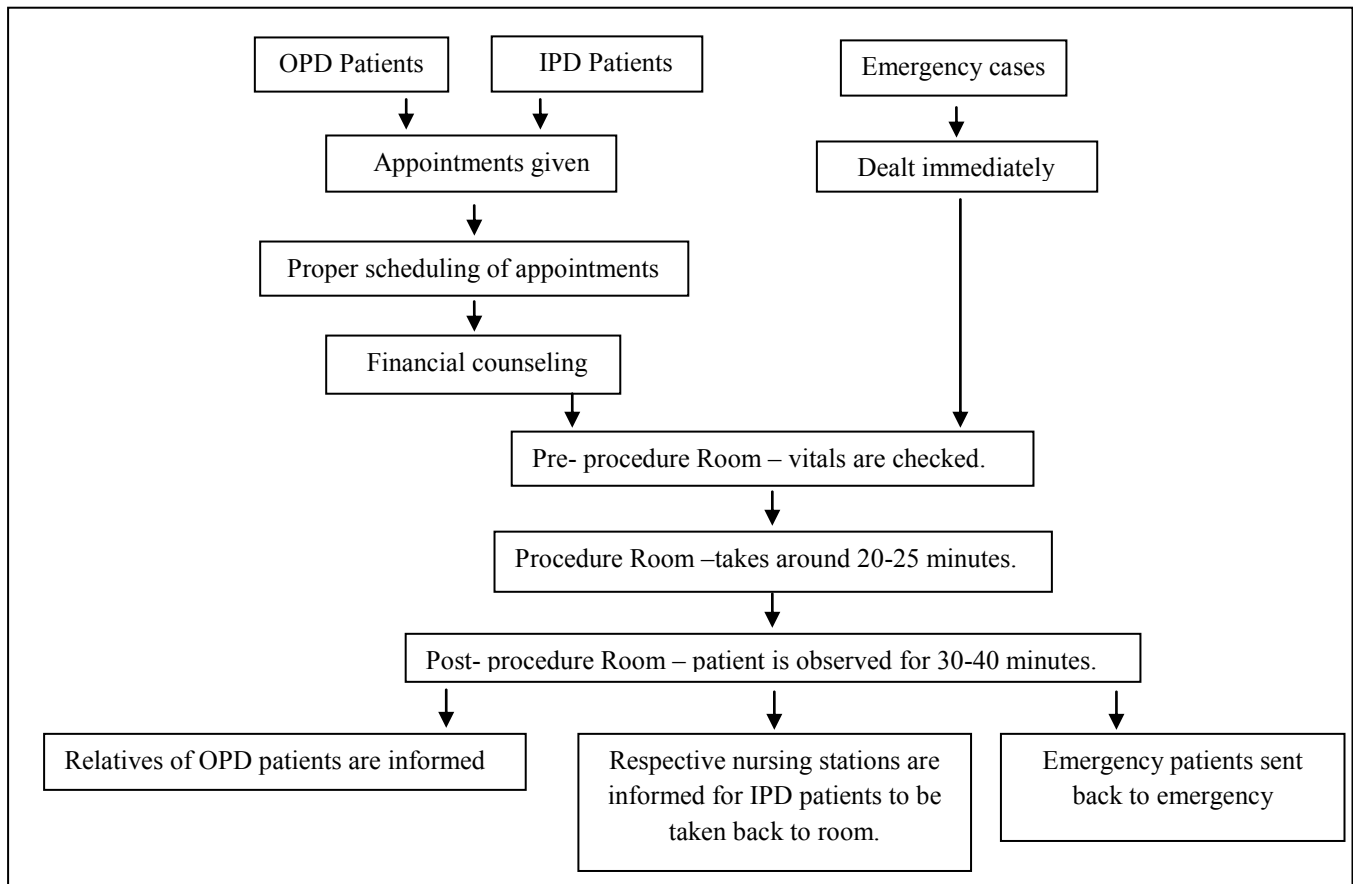


Table no.9: showing various areas of the CSSD, along with a list of the activities that take place in each department

Sr. No	Area	Functions
1.	Receiving Area	All the infected instruments are received and their quantity is verified.
		They are washed under water and in ultrasonic cleaners.
		These instruments are then dried with an air gun and subsequently put in a Yorco oven for complete drying.
		All instruments are then put into a washer-disinfection machine. This machine is equipped with double doors in order to facilitate collection directly from the processing area.
2.	Processing Area	This area receives cleaned instruments and in this area, the instruments are separated by the personnel according to the checklists.
		The instruments thus separated are put into trays which are wrapped with a double layer for infection control.
		These trays are then labelled and thrillium indicators are put on these trays as a measure of the quality of sterilization.
		The sterilization method is selected according to the instruments in question. The methods of sterilization that may be used are LTSF (low temperature steam formaldehyde) or Plasma Sterilization.
3.	Sterile Area	All the sterilized instruments are collected in the sterile zone through the doors of the sterilization equipment opening in that area.
		These equipments are separated according as per the quantities received from each department and are put on separate racks.
		Low temperature and positive pressure is maintained in this area for infection control.
4.	Issue Area	Instruments are sent to the OT directly from the sterile area through a lift in the issue area to prevent any kind of cross contamination.
		All the other instruments are loaded on to covered trolleys and are then sent to the issue areas of specific departments, to be issued as and when required.

g) Dietetics, and Food and Beverages:

These offices are situated in the lower ground floor of Medanta the Medicity. These departments are tasked with managing the dietary needs of the patients coming into the hospital. This task is made all the more difficult by the fact that the hospital caters to the needs of over 1200 patients (beds) per day. The enormity of this task can be appreciated by the fact that most five star hotels are able to handle only up to 600 clients per day, and the Food and Beverages Department of this hospital has to be able to serve close to 7000 meals per day. In order to be able to cater to the delicate yet crucial needs of all the patients coming in to the hospital, most of the Food and Beverage functions are outsourced (the company to which the functions are outsourced shall hence be referred to as the 'Partnering Company'). All heavy equipments in the kitchen are property of GHPL Pvt. Ltd, and the Partnering Company has the responsibility of bringing in only light equipment like cutting knives, etc. All such light equipment are colour coded in order to prevent cross-contamination, so, for example, the equipment used for cutting poultry (coded yellow) will not be used for cutting fish (coded blue).

With respect to ensuring quality of services, GHPL Pvt. Ltd maintains service level agreements with the Partnering Company, and both strive jointly towards maintaining the quality standards. Both GHPL Pvt. Ltd. and the Partnering Company have representatives present on each floor, and these representatives jointly keep a check on any issue that may crop up on a floor.

The Dietetics department is tasked with the specialized function of ensuring that a patient is not presented with a meal that may not be in compliance with the treatment that the patient has come to Medanta for. To be able to deliver on this front, the dietician's role includes checking the diet of all the patients periodically, going on rounds of the patients with the chairpersons, solving patient queries related to diets, planning the diets of the patients and coordinating with the kitchen in order to ensure the provision of the right quality food to the patients.

Finally, these departments also maintain a chart of the amount of food wasted per day (wasted food is discarded) and thus, a strict control is maintained on the inventory of all food items.

h) Marketing:

This department is situated on the lower ground floor of Medanta the Medicity. The chief function of this department, is to market the services of Medanta the Medicity. Medanta is now at such a stage of its life cycle that it need not indulge in extensive marketing activities. Medanta the Medicity is a brand name recognized internationally, which is evident from its large international patient base.

In fact, this brand is so well known that Medanta the Medicity has not even invested in large billboards (to be erected on top of the building) and does not spend too much on Out-Of-Home advertising. This hospital does have a strong presence on Facebook, and is followed on Facebook by many. This uniqueness of the hospital lies in the services that it offers, and the quality of services offered. This is why most of the marketing that this hospital enjoys is through 'word of mouth'. The clinical team employed at Medanta the Medicity is among the finest in the Asia Pacific region, and the technology used here is among the finest in the world. All these factors have come together to make Medanta the Medicity a strong brand

A majority of the activities of the marketing department comprise of CSR initiatives. Medanta the Medicity has partnered with a number of charitable organizations and conducts periodic camps in various areas. Medanta has acquired a mobile van titled 'Sanjeevan', which is used to carry out camps in distant areas. This van is equipped with all modern diagnostic facilities, and includes equipment for Mammography, X-Ray and other facilities.

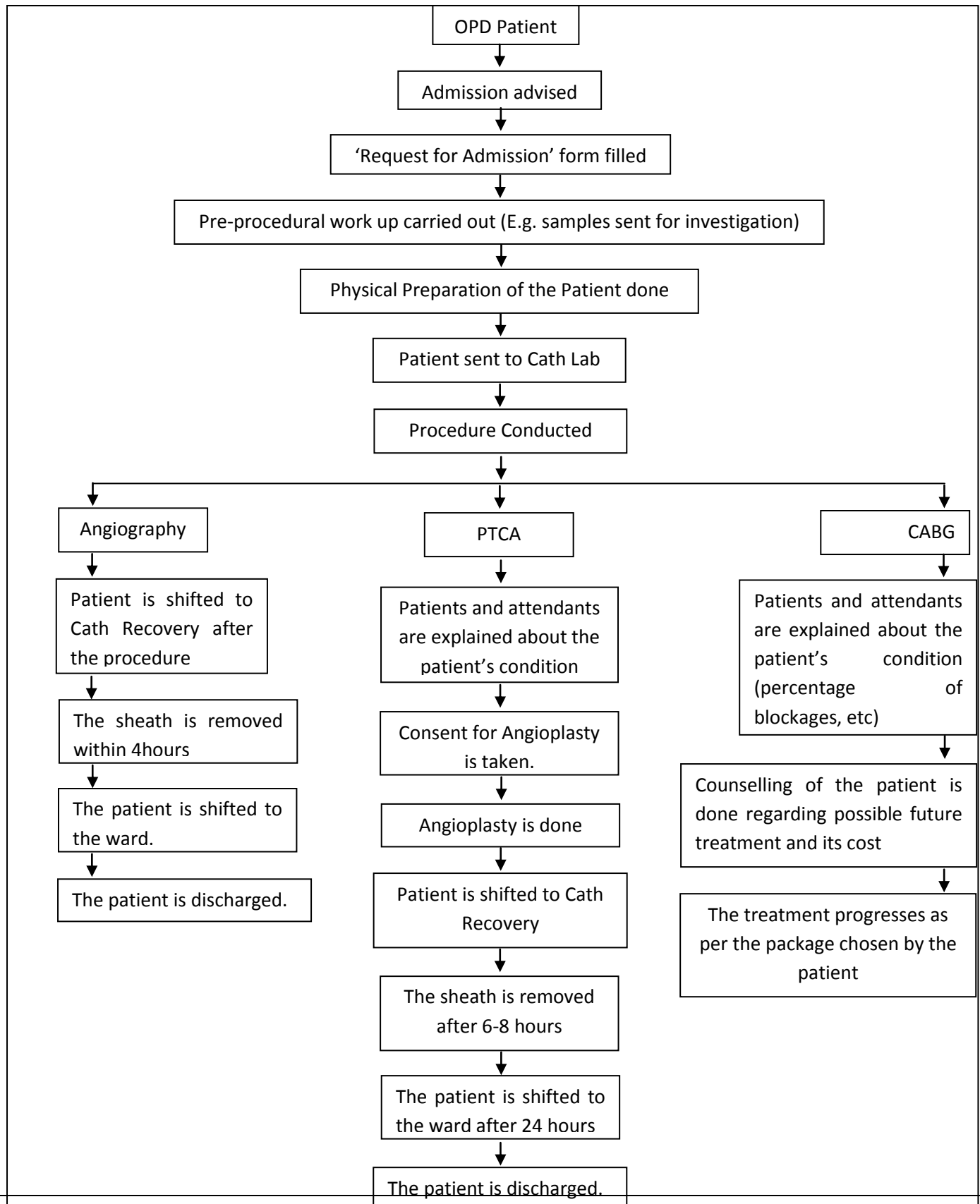
i) Engineering:

The Engineering department is situated on the first basement of Medanta the Medicity. This department is responsible for catering to all the electrical needs of the entire hospital. The Engineering department is responsible for centrally providing water, electricity and air to the entire hospital. Eighty percent of the Engineering Department is outsourced, and the staff employed by Medanta the Medicity is tasked with supervising the functions of the outsourced staff and ensuring that quality work is delivered, as these requirements of water, electricity and air are crucial to any enterprise, and especially in hospitals. The engineering department of Medanta the Medicity has employed 6 generators of 2000kva, to provide electricity back-up to the entire hospital.

j) Cath Lab:

The Cardiac Cath Lab is situated on the third floor in the IPD area. There are a total of four Cath Labs and one DSA Lab. The flow of the Cath Lab takes place through the POCU, the Cath Lab and the Cath Lab recovery area as has been enumerated below.

Figure8: Process Flow of Cath Lab



k) Radiation Oncology:

This department is situated on the lower ground floor. It has an Integrated Brachytherapy Unit (IBU) for intra operative and post operative treatments for cancer related to the cervix and soft tissue sarcomas along with prostate seed implants. The procedure rooms have been made keeping in mind the AERB (Atomic energy regulatory board) standards.

Innovative techniques such as Robotic Radio Surgery with the world's first Cyberknife VSI system; Image Guided Radiotherapy (IGRT) with X-Ray Volume Imaging are some of the super-specialty treatments offered by this department of Medanta the Medicity.

l) Intensive Care Unit:

Table no. 10: showing the distribution of the Intensive Care Units of Medanta the Medicity.

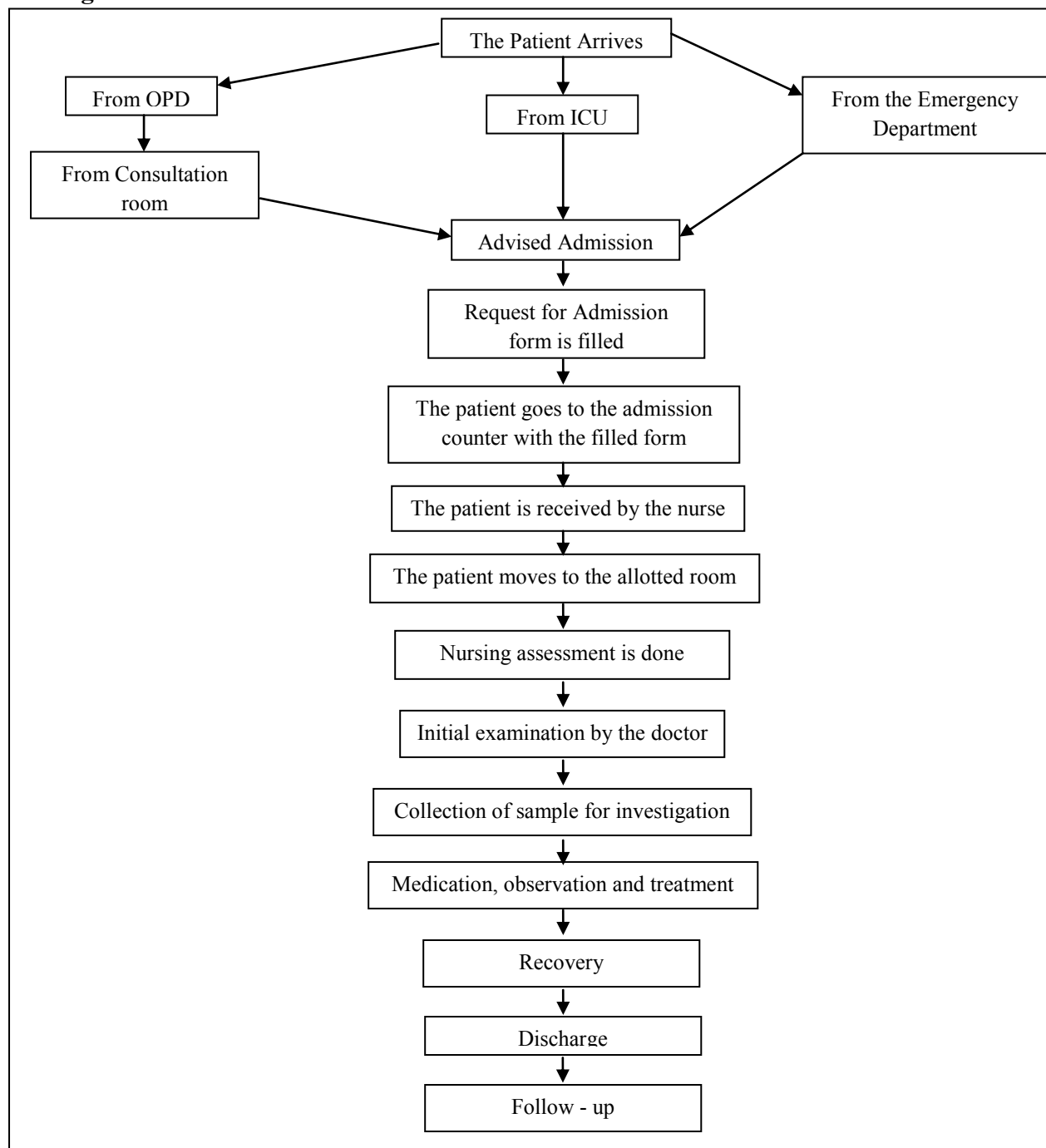
ICU Number	Details
ICU 1	22 beds, (16 for Cardiac and 6 for Pediatric)
ICU 2	22 beds, (CTVS)
ICU 3	22 beds, (General 10, Neuro Surgery 10, Dialysis 2)
ICU 4	22 beds, (liver Transplant 8, Gastro + GI 14)
ICU 5	24 beds, (Medical ICU 18, General Paediatrics 6)
Ortho ICU	12 beds
HCC	18 beds
ICCU	22 beds, (CTVS 12, Cardiac 4, Kidney Transplant 6)
Pre and Post Cath Lab	26
HDU	10th floor (10 beds)
	Total Beds = 200 beds

m) In-Patient Department:

Each clinical institute of Medanta the Medicity has its own In-Patient Department. Thus, there is an In-Patient Department in each floor of Medanta the Medicity.

The general process flow is as has been enumerated below.

Figure 9: Process Flow of IPD



n) Medical Records Department:

The Medical Records Department of Medanta the Medicity is situated on the lower ground floor of the hospital. This department is tasked with storing all the physical medical records generated in the hospital. Once a medical record is received by the department, a unique reference number is generated through Microsoft Excel, and the medical record is stored according to this number. MLC records are stored in a yellow file, and the records of expired patients are stored in a pink file.

The Medical Records Department maintains the records of each patient file it receives for a period of 5 years. During this period, if a certain file is requested for reference/research purposes by any department of the hospital, the clock of storage is restarted. Apart from these functions, the personnel of the Medical Records Department may also be required to attend to calls from the courts of law, with the files of any patient as and when required.

o) In-Patient Pharmacy:

The In-Patient Pharmacy of Medanta the Medicity is situated on the lower ground floor. This department is tasked with handling the responsibility of helping ensure that the correct medication is available with the IPDs of all clinical departments at all times. The medicines procured by the In-Patient Pharmacy are decided by the Pharmacy and Therapeutic Committee of this hospital.

The IPDs of all departments use a system of indenting to procure medication. These indents are sent to the In-Patient Pharmacy as and when required by the IPD. The indents are then ranked according to urgency by the dispensing pharmacist and these medicines are taken out from the stores and the change in quantity of the inventory these medicines is recorded by the pharmacist.

There are 4 types of licenses maintained by this department, obtained from the Excise Office, Gurgaon, with regard to the retail and wholesale of the following:

- Narcotics
- Denatured Spirit
- Morphine
- Fentanyl (2ml and 10ml)

The In-Patient Pharmacy department maintains 16 days worth inventory of medicines with it for emergencies, and ensures that medicines are returned to vendors 3 months prior to their expiry.

p) Dialysis:

The Dialysis unit is situated on the 12th floor. There are 12 dialysis machines and the number of cases done per day is around 55 cases (45 OPD + 10 IPD)

q) Housekeeping:

This office of this department is situated on the lower ground floor of Medanta the Medicity, and is tasked with managing the sanitation needs of the patients coming into the hospital. This task is made all the more difficult by the fact that the hospital caters to the needs of over 1200 patients (beds) per day. The enormity of this task can be appreciated by the fact that most five star hotels are able to handle only up to 600 clients per day.

In order to be able to cater to the delicate yet crucial needs of all the patients coming in to the hospital, most of the Housekeeping functions are outsourced (the company to which the functions are outsourced shall hence be referred to as the 'Partnering Company'). All the cleaning material is the property of GHPL Pvt. Ltd. The Stores of Medanta the Medicity issue cleaning material to the personnel on the different floors as per levels decided through an exercise that was conducted, to ensure that such material is not wasted. Any extra requirement requires permission and explanation. This exercise had been conducted to determine the room-wise and floor-wise requirement of cleaning inventory.

With respect to ensuring quality of services, GHPL Pvt. Ltd maintains service level agreements with the Partnering Company, and both strive jointly towards maintaining the quality standards. Both GHPL Pvt. Ltd. and the Partnering Company have representatives present on each floor, and these representatives jointly keep a check on any issue that may crop up on a floor.

r) Medical Gases:

This department is situated on the first basement of Medanta the Medicity. This department's chief responsibility is to ensure the timely provision of all the medical gases wherever they may be required. This department is responsible for the inventory control of the following gases:

- Oxygen
- Carbon Dioxide
- Nitrous Oxide
- Vacuum (for suction purposes)
- Medical Air

This department is also responsible for maintaining inventories of the cylinders that may be used during patient transport

Table no. 11: showing the colour coding of various cylinders of medical gases

Sr. No	Item	Colour Code Used
1.	Oxygen	White
2.	Nitrous Oxide	Blue
3.	Vacuum	Yellow
4.	Medical Air	Black
5.	Carbon Dioxide	Grey

The cylinders have a black body, but the top of the cylinder of the cylinder is painted according to the above legend. The pipes used for transporting these gases within the hospital also follow the above colour coding.

2E. Organizational learning

There are several things that I learnt during my internship in the hospital. In health care organizations, patient care is provided through one or more visible and invisible teams. These teams are composed of experts and novices from diverse backgrounds who work together to provide coordinated care. These teams can be visible teams that provide frontline patient care such as physicians and nurses or ancillary care teams such as laboratory technicians, radiographers etc., or frontline nonclinical teams such as security, registration and housekeeping, or invisible teams such as the biomedical engineering, information technology, kitchen staff, etc. These interconnections and interdependence are not apparent or appreciated in the large scope of daily activities. This was one opportunity where I could observe things closely and be able to appreciate these interconnections and interdependence. For example if the tube system that transports specimens and medications or the information technology (IT) systems that manages all the computers, telephone in the hospital, breakdown, there is a disruption and loss of communication, compromising standard care in a timely manner.

There is another aspect that I found to be of utmost importance in the day to day activities of the hospital and that is team work. As such the smooth functioning of the hospital and improvements in the quality of healthcare and patient safety depends a lot on inter-professional and team based learning.

The whole hospital is divided into small managerial units. This is important considering the large scope of services being provided at Medanta. This has not only helped this large multispecialty hospital function smoothly but also efficiently. It was also very interesting to note the process flows in various non-clinical departments like kitchen, laundry, pest control, etc.

This was my first practical exposure of a hospital and it was indeed an enriching one.

3. Specific Project: To assess the current practices in the hospital for assessment, prevention and management of pressure ulcers

3.1 Introduction

Pressure ulcer (PU) also known as decubitus ulcer or bed sore is “an area of localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers the significance of which is yet to be elucidated.” EPUAP 2009 Pressure ulcers are considered as preventable if proper and timely care is given to the patient . A patient developing it after 24 hours of admission to the hospital is considered as hospital acquired pressure ulcers and the hospital is accountable for it.

Although, the incidence of pressure ulcers is low in Medanta, the intent is to reduce it to the near zero level.

3.2 Rationale

PU development remains an indicator of quality of nursing care since the time of Florence Nightingale. In 2008, Medicare, an insurance company decided not to reimburse hospitals for management of pressure ulcers as they consider it preventable and occurring due to improper care provided by the hospitals. It is also one of the L.O.M of the J.C.I.

It adds to the costs of the hospital as costs for treatment is more than costs for prevention and it also increases nursing time.

It increases the pain and suffering of the patients, prolongs their hospitalisation and there are also various complications of pressure ulcers which include septicaemia, osteomyelitis and death.

Therefore, as health care providers it becomes essentially important for hospitals to be able to prevent it and not let it happen.

3.3 Review of literature

Figure 10: Process of development of Pressure Ulcer

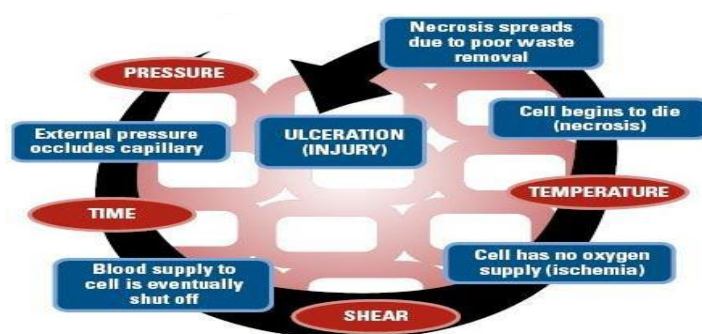
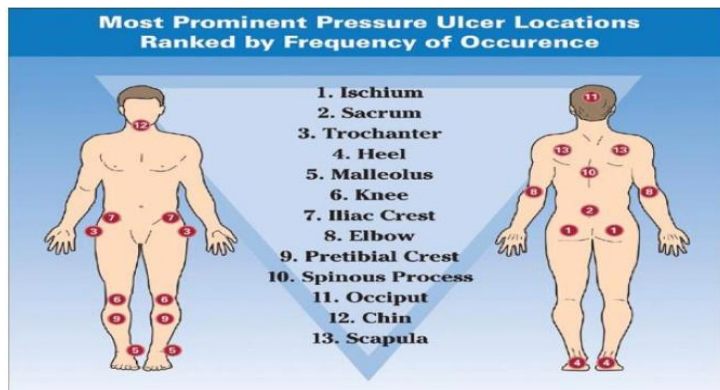


Figure 11: Areas prone to Pressure Ulcer



International Pressure Ulcer Classification System by NPUAP

Category/Stage I: A reddened area on the skin that when pressed is non-blanchable.

Category/Stage II: Skin blister or partial thickness skin loss involving epidermis, dermis or both.

Category/Stage III: Full thickness skin loss involving damage or necrosis of subcutaneous tissue but not underlying fascia.

Category/Stage IV: Full thickness tissue loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures i.e, tendon, joint capsule.

Additional Categories / Stages for the USA : Unstageable / Unclassified:

- **Full thickness skin or tissue loss** – Full thickness tissue loss in which actual depth of the ulcer is completely obscured by slough and/or eschar in the wound bed
- **Suspected Deep Tissue Injury** – Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear.

There are various studies which have been conducted across the world in relation to pressure ulcers.

Studies indicate that more than **one in 10 nursing home residents** have suffered from a bedsore. (source- John Hopkins)

An estimate by a **2003 study, that ,across all Canadian healthcare settings one in four individuals** (26%) suffered from a PU.

In a six-month pilot of the programme in an acute care setting, **PU prevalence decreased from 23.4% to 15.2% following proper care.**

In 2002, the Japanese government introduced a **scheme of financial penalties for hospitals** that failed to implement a series of specified PU prevention strategies . Overall prevalence of PUs of all stages before the scheme was 4.3%;it fell to 3.6% after one year

Since 2003, Owensboro Medical Health System (OMHS) in Kentucky has instituted a number of processes and strategies for reducing facility-acquired PUs including education, changes in documentation processes and use of pressure redistribution. In a period of **just over two years, the incidence of facility-acquired PUs in acute care dropped by 93% (from 20.6% to 1.4%) on following interventions.**

3.4 Significance of proposed work

This project was assigned to me to **assess the current practices in the hospital for assessment and care being given to patients in relation to prevention and management of pressure ulcer and give evidence based suggestions that can be used in the hospital, so as to reduce the incidence of hospital acquired pressure ulcers and for better management of those with pressure ulcers (both hospital and community acquired).**

3.5 Objectives

1. To identify existing gaps in the identification of various risk groups for pressure ulcers.
2. To identify gaps in the implementation of the various interventions in the risk groups to prevent pressure ulcers and also in management of those with pressure ulcers.

3. To understand the various reasons for these gaps.
4. To provide evidence based suggestions for early identification of risk groups, implementation of preventive interventions in these groups and better management of those with pressure ulcers.
5. To implement suggestions for early identification of risk groups, implementation of preventive interventions in these groups and better management of those with pressure ulcers.

3.6 Study 1

A study of patients with pressure ulcers for relevant findings that could help in its prevention.

In Medanta, apart from reporting of patients with pressure ulcers, a list of patients with pressure ulcers is generated by the nursing department every day. Study was conducted based on this list of patients with pressure ulcers, on two different days.

3.6A: Methodology

Type of study - Analytical, cross-sectional study.

Study area – Entire hospital

Study duration- 1 month

Sampling and sample size- purposive sampling used and all 44 patients having pressure ulcers (both hospital and community acquired) and IAD on two different days when the data was collected, were taken .

Data collection- Data was collected from study of records of patients with pressure ulcers for the presence of various particulars included in the observation checklist used. **Primary data** was also collected by observing the patients and their respective nursing staff and also interviewing them.

Method used- An audit of the records of patients with pressure ulcers, direct observation of operations and in-depth interview whenever required.

Tool used- Observation check-list

3.6B: Data Analysis

The total sample was distributed according to the type of ulcers. Patients with pressure ulcers was further subdivided as those with community acquired pressure ulcers and those with hospital acquired pressure ulcers. Incontinence associated dermatitis (I.A.D) which is another type of ulcer but not a pressure ulcer and is often confused as pressure ulcer, so has to be differentiated and was another category.

Table no. 12 showing distribution of sample according to the type and number of ulcers

Particulars		Day 1	Day 2
Total sample		25patients	19patients
Pressure ulcers	Community acquired	12patients (30 ulcers)	7 patients (9 ulcers)
	Hospital acquired	4patients (4 ulcers)	2 patients (3 ulcers)
Incontinence associated dermatitis		9patients	10patients

There were six patients who acquired pressure ulcers during their stay in the hospital and for which the hospital is accountable. The observations in these patients are as below:

Table no. 13 showing observations in 6 patients with Hospital acquired pressure ulcers

Particulars	1	2	3	4	5	6
Occurrence (from d.o.a)	5days	3days	27days	39days	16days	7days
Stage of identification	2nd	2nd	2nd	2nd	1st	2nd
Risk level at time of admission	No	No	No	No	No	No
Risk level one shift earlier to identification	No	Low	Not mentioned	Low	Moderate	Moderate
Age(in yrs.)	63	79	59	53	85	59
Diabetic	yes	no	yes	yes	no	no
Diagnosis	PVD	COPD,CAD	Post CABG	CHF, AKI	Stroke,CAD, post PTCA	Ethanol related CLD

There were various observations common to all patients with pressure ulcers (both hospital as well as community acquired) and they are mentioned below:

Two patients with C.A.I-PU developed more no. of pressure ulcers after admission which is included under C.A.I-PU but should be under H.A.I-PU as otherwise this would show lesser no. of H.A.I-PU which may not be the case.

In 4 patients the condition of ulcer further deteriorated from the condition initially identified at and there was one peculiar case in which although the ulcer initially identified healed, but the patient developed another ulcer in a different site.

PU wound assessment and monitoring tool used for shift wise reassessment and monitoring of the PU was incomplete in 15 out of 25 cases i.e, 60% of the cases. In these cases either the present stage of the ulcer was not mentioned or the interventions to be followed were not marked. The tool was also incorrectly marked for few aspects in 12 out of 25 cases i.e, 48% cases. Aspects like dressings were changed once a day but marked as being changed every shift. Patients had 2nd, 3rd stage ulcer but skin was mentioned as intact.

3.6C: Summary and Conclusion

Out of the 6 patients with HAI PU, 5 were identified at the 2nd stage of ulcer i.e, identification of ulcer at the first stage, where it is still reversible, was being missed.

None of these patients were at any level of risk to develop pressure ulcers at time of admission and even one shift earlier to ulcer identification only one of them had moderate level of risk, yet they all developed pressure ulcers, which means risk identification not being done appropriately.

There was ambiguity in marking the Braden scale score (which is a pressure ulcer risk assessment scale used worldwide)

Ambiguity also existed in the management of pressure ulcers- especially in the type of dressing to be used and its frequency of change, and the timing of plastic surgery referral.

The above study included only those patients who had ulcers so for getting a clearer and more complete picture and being able to come up with a concrete suggestion for prevention this study further led me to study even those patients who did not have pressure ulcers but could have been at risk of it.

The following study is a part of the same project and has been mentioned separately only for ease of understanding since the study population, the study area and the sample size are different.

Note- *The above study was conducted on patients with ulcers (PU and IAD) and the following study is on patients who do not have pressure ulcers but may be at risk of developing it.*

3.7 Study 2

Study to determine percentage of patients with various levels of risk of developing pressure ulcers and other associated relevant findings related to assessment for risk and preventive interventions being followed in them.

3.7A: Methodology

Type of study- Descriptive and Analytical (Mixed), cross-sectional study

Study area- Critical care areas having greater number of patients with risk of pressure ulcer was selected. Study was **on all patients admitted in HCC, ICU-3, ICU-4, ICU-7, and ICU-8** for the presence of various particulars included in the observation checklist prepared for this study.

Sampling and sample size – Purposive sampling was used. Sample size was of **87** patients (which equals the no. of admissions in these areas at that time).

Data collection- Data was collected from study of records of patients with pressure ulcers for the presence of various particulars included in the observation checklist used. **Primary data** was also collected by observing the patients and their respective nursing staff and also interviewing them.

Method used- An audit of the records of patients with pressure ulcers, direct observation of operations and in-depth interview whenever required.

Tool used- Observation checklist

3.7B: Data Analysis

Out of total 87 patients audited, 63 patients were at some level of risk

Table no. 14 showing risk wise distribution of total 87 patients

	No risk	Low risk	Moderate risk	High risk	Very high risk
No. of patients	24	17	17	19	10

Out of total 87 patients audited, risk levels were inappropriately marked for 50 patients

P.U wound assessment and monitoring tool which is to be used only in patients with pressure ulcers was used even in patients without pressure ulcers just to mark position change (which is one of the interventions for prevention of PU) in 41% cases.

There was also a lot of ambiguity in usage of alternating pressure air mattresses/overlays (which is also one of the interventions for prevention of PU) that were being used even in low, moderate risk cases and not used in some high risk ones.

Interventions for prevention were not being followed according to the risk levels, instead were being followed on discretion of the assigned staff nurse.

3.7C: Conclusion

- 72% of patients in critical areas were at some level of risk of pressure ulcers, requiring proper compliance to interventions for prevention.
- There is ambiguity in doing the Braden scale risk assessment and also in interventions to be followed for various risk levels, indicating training needs.

3.8 Suggestions

- To redesign initial assessment form (pressure ulcer aspect)
- To redesign the daily assessment and care form used by nurses for proper reassessment for pressure ulcers and ease of recording it.
- To design posters of Braden risk assessment scale and put it in all patient rooms and nursing stations for reference during scoring.
- To define a pathway for pressure ulcer prevention and management and SOP updating to be done accordingly.
- To design a poster of interventions to be followed for various risk levels and put it in the nurses training area for reference.

- To conduct education and awareness drive for doctors as well as nurses. Pressure Ulcer Reduction and Prevention- Learning for Excellence (PURPLE initiative)
- To reform the protocol for pressure ulcer management by removing existing ambiguities related to dressings, plastic surgery referral and type of overlay/mattress to be used.
- To design audit tools for ease of finding out patients with various risk levels and to check for compliance of interventions to be followed for those risk levels.
- To include few important aspects in the audit tool used for information on patients with pressure ulcer and also automate it. The information generated can be used for identification of gaps and correcting it for continuous monitoring and further prevention.
- Dashboard showing all relevant information related to quality care aspect of pressure ulcers at end of every month, to be used for proper monitoring, prevention and determining future course of action in this regard.

3.9 Implementations

All the above mentioned suggestions have been accepted for implementation. I have also got opportunity to be a part of the implementation and have been following up with all concerned people and departments for the same.

- The daily assessment and care plan form used by nurses (pressure ulcer aspect) has been redesigned by me and is ready for printing.
- Posters of Braden scale risk assessment guide, areas of body to be checked and interventions to be followed for prevention have been ordered for printing.
- The pathway for pressure ulcer prevention and management has been finalised by referring to various international guidelines and concerned doctors.
- Customized care plan for any subscore less than 3 in any of the Braden scale parameters has been developed and is to be included in poster in nursing stations for reference.
- I have also designed training material for doctors and nurses and conducted an education and awareness drive called the PURPLE (Pressure Ulcer Reduction and Prevention- Learning for Excellence) initiative for the critical care team doctors and nurses.

- I have submitted audit tools for ease of identification of risk levels and compliance to interventions to be followed, to the nursing department and it has also been tested and used to collect relevant information.
- The information needed every month on the dashboard has also been suggested, approved and a rough design of it has been submitted.
- An In-depth study of the specifications of various types of overlays and mattress replacement systems for prevention and management of pressure ulcers has been done and a new protocol for its indentation has been laid down. A plan to stop further purchase of existing air mattresses and phase out the existing air mattresses has been approved.

3.10 Project Specific Learning

The project assigned to me was on quality of care related to pressure ulcers and I had to cover everything regarding the topic, be it the initial assessment, reassessment, preventive care or its management. After finding out the current practices in the hospital and studying the standard operative protocols followed regarding pressure ulcers and also doing a lot of literature review, I began data collection.

This project has been a great learning experience for me starting from designing the data collection tool, then direct observations through which I could find out the difference between what was being said and what was actually being followed. The direct interviews helped me get a deeper insight into the subject. I also got the opportunity to implement my suggestions and in the process had to interact with a lot of people of diverse backgrounds- the Chief operating officer, floor managers, physicians, plastic surgery team, nursing staff, nursing superintendant, Arjohuntleigh team, nutrition and dietetics department, communication department and IT department. It was a very difficult task to get everyone to a consensus as they all had diverse views. Due to this there were several delays as well, but the best part was that consensus was obtained and the implementations rolled out. There were changes almost everyday even during the implementation phase. Aspects like feasibility, sustainability, appropriateness and better customisation were being considered and reconsidered time and again.

4. References

1. National Pressure Ulcer Advisory Panel (NPUAP) and European Pressure Ulcer Advisory Panel (EPUAP) 2009. Prevention of pressure ulcers: Quick Reference Guide. Washington DC
2. National Pressure Ulcer Advisory Panel (NPUAP). Pressure Ulcer Definition and Stages. www.npuap.org/documents/pudefinition_stages.pdf
3. Olshansky K (2008). The 10 most important questions concerning pressure ulcers and quality of care. *Advances in Skin and Wound Care*; 21(11): 505-8
4. Land I, Evans D, Geary A et al (2000). A clinical evaluation of an alternating pressure mattress replacement system in hospital and residential care settings. *Journal of tissue viability*; 10(1):6-11
5. Pressure ulcer risk assessment. *Nursing Times* 24.01.12/Vol 108 No 4/ www.nursingtimes.net
6. Bergstrom, N., Braden, B. J., Laguzza, A., & Holman, V. (1987). The Braden Scale for predicting pressure sore risk. *Nursing Research*, 36, 205-210.

5: Annexure

Annexure 1: Audit tool for finding out risk level

DATE:

UNIT/ FLOOR:

Pressure Ulcer Risk Assessment						* Incorporate intervention in Care plan	
BRADEN RISK ASSESSMENT SCALE							
SENSORY PERCEPTION	SCORE	MOISTURE	SCORE	DEGREE OF ACTIVITY	SCORE		
No impairment	4	Rarely moist	4	Walks frequently	4		
Slightly limited	3	Occasionally moist	3	Walks occasionally	3		
Very limited	2	Very moist	2	Chair fast	2		
Completely limited	1	Constantly moist	1	Bed rest	1		
MOBILITY		NUTRITION		SHEAR AND FRICTION			
No limitation	4	Excellent	4	No problem apparent	3		
Slightly limited	3	Adequate	3	Potential problem	2		
Very limited	2	Inadequate	2	Problem present	1		
Completely immobile	1	Very poor	1				

								Auditor		Assigned staff	
Bed no.	UHID	Sensory perception	Moist ure	Degree of activity	Mobil ity	Nutriti on	Shear & friction	Total score	Risk level	Total score	Risk level
1											
2											
3											
4											
5											
6											
7											
8											
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10											
11											
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21											
22											

	No risk (17-23)	Low risk (15-16)	Moderate risk (13-14)	High risk (10-12)	Very high risk (9 or less)
Total					
Percentage					

Name & Signature of auditor: