

Summer Internship
in
Fortis Escorts Heart Institute, Okhla, Delhi
(April 8-May 31, 2013)

A Report
On
CRITICAL RESULT(LAB.)REPORTING WITHIN 15 MINUTES

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Post-graduate Programme in Hospital Management
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ACKNOWLEDGEMENT

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The attitude bliss and emphasis that accompanies the successful completion of my task would be incomplete without the expression of application towards those who rendered help and guidance throughout my project work. I wish to express my sincere gratitude to Fortis Escorts Heart Institute (FEHI), Okhla, Delhi for providing me an opportunity to get exposed to research work.

The special thanks goes to Quality Officer of the department, Dr. Akanksha Patel. The supervision and support that she gave truly helped the progression and smoothness of the internship programme. The co-operation is very much appreciated.

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(Shiji Samuel)

INTRODUCTION

INTRODUCTION OF FORTIS ESCORTS HEART INSTITUTE



Fortis Escorts Heart Institute, formerly known as Escorts Heart Institute and Research Center, a pioneer in the field of fully dedicated cardiac care facility in India is a Fortis (Fortis Healthcare(India) Ltd.) network hospital. Fortis Healthcare is the fastest growing hospital network in India.

Fortis Healthcare, led by the vision of late Dr. Parvinder Singh of creating an integrated healthcare delivery system in India acquired Escorts Heart Institute and Research Centre Ltd. in 2005. Established in 1988, Escorts celebrated 25 years of Cardiac excellence in 2012.

Fortis Escorts Heart Institute has set benchmarks in cardiac care with its path breaking work over the past 25 years. Today, it is recognised world over as a centre of excellence providing the latest technology in Cardiac Bypass Surgery, Minimally Invasive Surgery (Robotics), Interventional Cardiology, Non-invasive Cardiology, Pediatric Cardiology and Pediatric Cardiac Surgery. The hospital is backed by the most advanced laboratories performing complete range of investigative tests in the field of Nuclear Medicine, Radiology, Biochemistry, Haematology, Transfusion Medicine and Microbiology.

Fortis Escorts Heart Institute has a vast pool of talented and experienced team of doctors, who are further supported by a team of highly qualified, experienced & dedicated support staff & cutting edge technology like the recently installed Dual CT Scan. Currently, more than 200 cardiac doctors and 1600 employees

work together to manage over 14,500 admissions and 7,200 emergency cases in a year. The hospital today has an infrastructure comprising of around 285 beds (it currently enjoys 100% occupancy rate), 5 Cath Labs besides a host of other world-class facilities.

Vision :

“Globally respected healthcare organization recognized for Clinical Excellence and Distinctive Patient Care”.

Vision

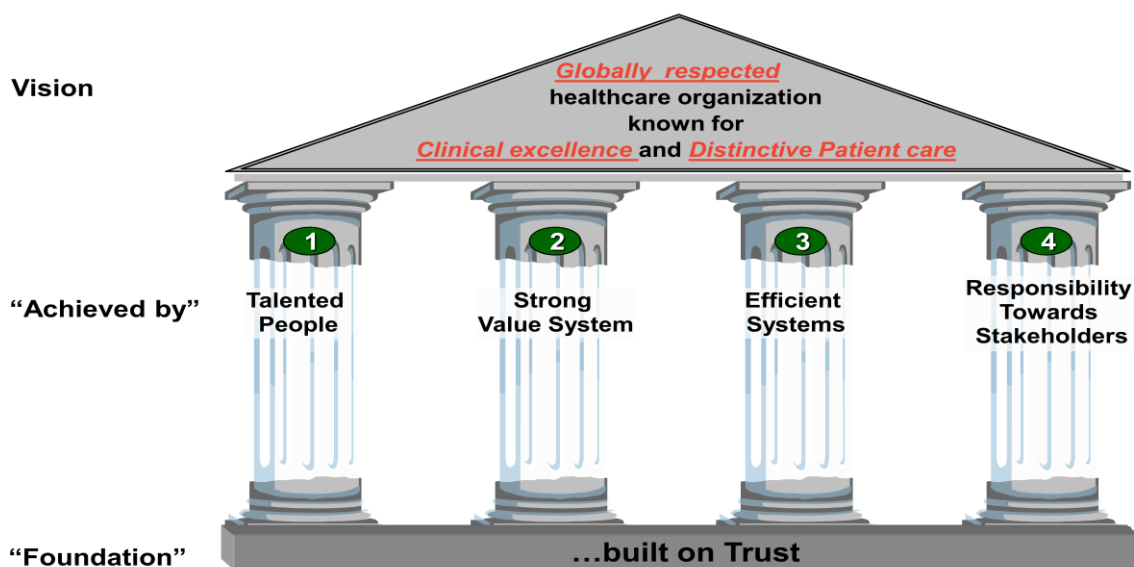


Fig. 1: Vision of Fortis Escorts Heart Institute

Logo



Fig. 2 : Logo of Fortis

Every entity, human or corporate, has a hallmark, a signature that identifies it.

The Fortis logo defines our very Persona. Our endeavor is to achieve excellence in health care delivery, equivalent to world standards and the human values that govern every facet of our business.

The two hands that fuse seamlessly with a human form, express our reassuring approach to healthcare. A constant reminder to all, that Patient-Centric care is fundamental to our ethos.

Green: is the color of healing and is symbolic of our steadfast focus; to ensure the health and well-being of those we minister to.

Red: is expressive of the dynamic zeal with which we strive to make it a reality.

Global Values



Values	Descriptors
Innovation	Continuously improve and innovate to exceed expectations. Adopt a 'can-do' attitude. Dare to do things differently.
Ownership	Be responsible and take pride in our actions. Take initiative and go beyond the call of duty. Deliver commitment and agreement made to team, colleagues, management, shareholders and customers/patients.
Teamwork	Proactively support each other and operate as one team. Respect and value people at all levels with different opinions, experiences and backgrounds. Put organization needs' before department / self interest.
Integrity	Be principled, open and honest. Model and live our 'Values'. Demonstrate moral courage to speak up and do the right things.
Patient Centricity	Commit to 'best outcomes and experience' for our patients. Treat patients and their caregivers with compassion, care and understanding. Our patients' needs will come first in every situation.

Fig. 3: Global values

Accolades & Awards

1. Best Single Specialty Hospital – Cardiology - ICICI Lombard & CNBC TV18 India Healthcare Awards 2012
2. Most preferred Cardiac Hospital in North India - The Week '12
3. Best Cardiology Centre in India - Declared in a survey conducted by Consumer Department (Government of India) 2012

4. Asian Awards Excellence Award 2011
5. FICCI HEAL 2011 Award for Poster Presentation
6. India's most caring hospital, Ministry of Consumer Affairs, 2009
7. ESCORTS has been awarded as Super Brand- 2008
8. Best Hospital in Delhi- ESCORTS, Mail Today- Feb, 2008
9. India's Best Hospitals in Cardiology, The Week- May, 2007
10. India's Best Hospital, Outlook- July, 2002

Facility Layout :

BASEMENT
Blood Bank, Lab Sciences ,Paediatric Echo lab , Finance, Purchase , Stores , Engineering, Laundry ,Nursing office, Reading Room , Auditorium , Corporate Offices ,MD's Office, CEO's Office, Board room.
GROUND FLOOR
Heart Command I &II , Emergency ,Heart Station I &II , Nuclear Medicine , Administration , Patient Care Services , Patient Welfare ,MS Office , Food and Beverages , Security , Dietician ,Cafeteria , Pharmacy , Counselling ,Billing ,Conference Room ,International Desk , TPA Desk , Day Care Centre ,ICU-I
FIRST FLOOR
Recovery I,II,III,IV, PICU-II, Anaesthesia , Operation Theatre , IT Department, Biomedical , Zen Lounge, Call Centre.
SECOND FLOOR
CSSD , Doctor's Office , Cath Lab , Cath Recovery I&III ,ICU II , Endoscopy Suite, Profecy Suite.
THIRD FLOOR

Cath Recovery II , Block A Bed No.301-331F ,Block B Bed No.332-359.
FOURTH FLOOR
CCU , Block A Bed No.401-431F , Block B Bed No.432-453, Presidential Suite, Billing
FIFTH FLOOR
PICU-1 Pediatric Ward Bed No.501-526, Doctor's Office

Fig .4: Facility layout

Services Offered :

11. **Air Lift:** Fortis Escorts Heart Institute has a dedicated team trained in aero-medical transport of critically ill cardiac patients. For evacuation, a fully trained team, comprising a cardiologist, an anesthetist, a nurse, a cardiac surgeon, with all the essential life saving equipments like the ventilator, defibrillator, monitor, IABP and so on, is dispatched to the destination in a 6 - 8 seater aircraft/ helicopter.
12. **Heart Alert Service:** Fortis Escorts Heart Institute introduced Fortis Escorts Heart Alert Service that has revolutionized cardiac care in India by providing an expert ECG interpretation over telephone within minutes of any chest complaint/symptoms. Patients in India and abroad can be benefited by this service.
13. **Mobile CCU:** A fleet of six well equipped Mobile Cardiac Care Units (CCUs) with on board Ventilator, Defibrillator, a cardiac monitor and an Intra Aortic Balloon Pump (IABP) is available 24hours a day. Our ambulance is equivalent to a bed in CCU.
14. **Community Outreach Program:** Fortis Escorts Heart Institute launched the Community Outreach Program focusing on “Taking cardiac care to the individual's door step” and organizes
15. **Several free cardiac check- ups camps** by cardiologists with specialized investigative facilities in different parts of India and neighbouring countries like Pakistan, Afghanistan, Nepal and Bangladesh.

Clinical team par excellence

Fortis Escorts Heart Institute today has a number of firsts in cardiac care thanks to the dedication, brilliance and inimitable passion for path breaking work of its Clinical team.

Dr. Ashok Seth, Chairman, Cardiac Sciences

Fortis Escorts is one of the most recognized and respected Indian Cardiologist across the globe. He has been awarded with Padma Shri in 2003 for his contribution to the growth, development and progress of

interventional cardiology in Asia Pacific. Dr. Seth leads a brilliant team of doctors including renowned names like Dr. T. S. Kler, Dr. Upendra Kaul, Dr. Suman Bhandari, Dr. Atul Mathur and Dr. Savitri Srivastava, Dr. S. Radhakrishnan and famous names in Cardiac surgery like Dr. K. S. Iyer (Paediatric Cardiac Care), Dr. Rajesh Sharma (Paediatric Cardiac Care), Dr. Anil Karlekar, Dr. Amit Varma, Dr. Z. S. Meharwal, Dr. Yugal Kishore Mishra and Dr. Ajay Kaul. The brilliant team of doctors and experts at Fortis Escorts Heart Institute continue to explore new frontiers and extend the limits of cardiac care to establish Fortis Escorts Heart Institute as one of the biggest stand-alone cardiac institution in the world.

Nursing Care

A team of professionally trained serve patients with compassion, respect and integrity. Nursing has always been the backbone of medical services offered by Fortis Escorts Heart Institute. There are regular training programs to enhance their skills and celebration of Nurses Day to salute their spirit of nurturing with devotion and unconditional care.

Paediatric Cardiac Care

Fortis Escorts Heart Institute is the only cardiac hospital in India to have a dedicated pediatric department with a specialized, highly trained multi disciplinary team of pediatric cardiologists, pediatric surgeons, anaesthesiologists and pediatric intensivists. The department has produced results that are comparable to the best in world.

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OPERATIONAL BED

Operational beds denote the capacity of beds in the unit. The number of operational beds has steadily increased over the years and the current capacity is 310. A steady increase indicates growth of the unit.



Fig. 5 Number of Operational Beds

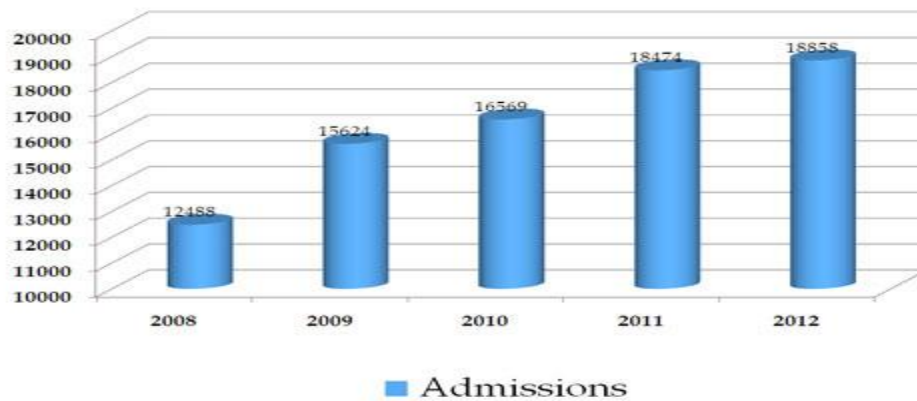


Fig.6 Number of Admissions

ALOS

ALOS or Average length of stay is used to measure the average duration of patient hospitalization. The length of stay is calculated by calculating the difference between the day of admission and the day of discharge. ALOS is calculated by dividing the sum of inpatient days by the number of patient's admissions in the same classification group. With use of latest technology and proper care the focus is on keeping the average length of stay low. The data above is the average of various lengths of stay over several quarters. This is a good indicator of the efficiency of the operations and continuous monitoring helps us keep our focus on operational efficiency.

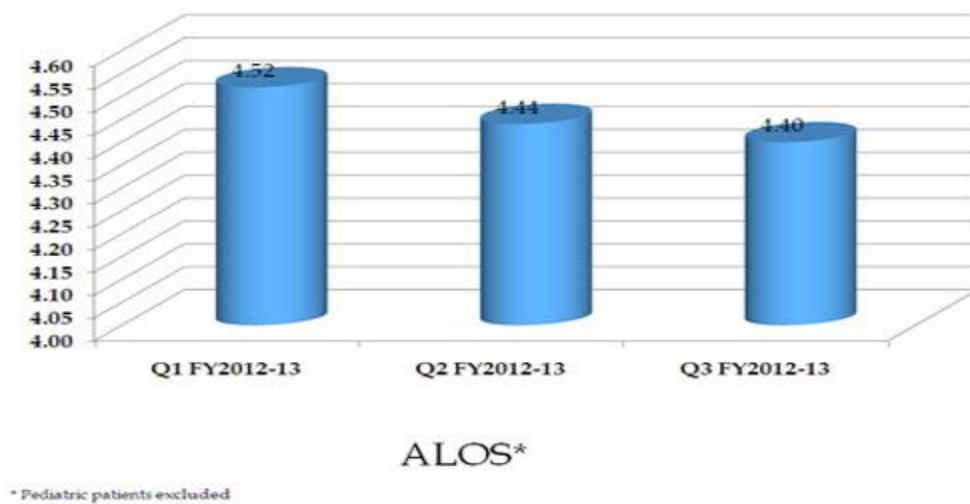


Fig. 7 Average Length Of Stay

SURGICAL SITE

A surgical site infection is an infection that occurs after surgery in the part of the body where the surgery took place. Most patients who have surgery do not develop an infection. However, infections develop in about 1 to 3 out of every 100 patients who have surgery. Some of the common symptoms of a surgical site infection are:

- Redness and pain around the area where you had surgery
- Drainage of cloudy fluid from your surgical wound
- Fever

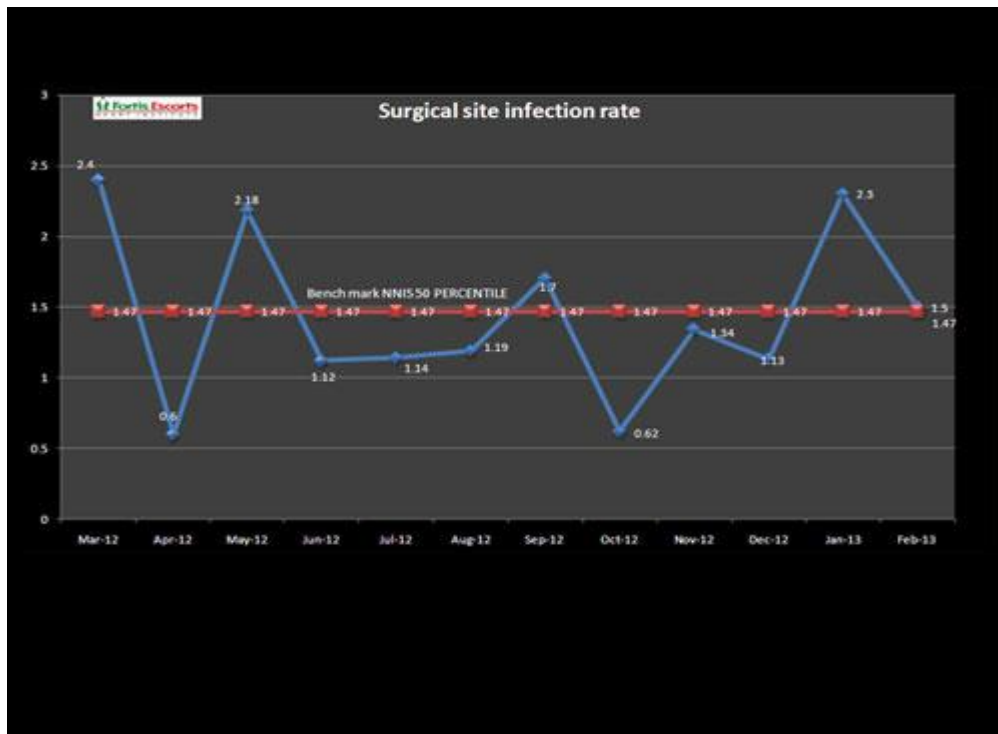


Fig. 8 Surgical site Infection Rate

CENTRAL LINE ASSOCIATED BLOOD STREAM INFECTION RATE-SURGICAL PATIENTS

A “central line” or “central catheter” is a tube that is placed into a patient's large vein, usually in the neck, chest, arm, or groin. The catheter is often used to draw blood, or give fluids or medications. It may be let in place for several weeks. A bloodstream infection can occur when bacteria or other germs travel down a “central line” and enter the blood. If you develop a catheter-associated bloodstream infection you may become ill with fevers and chills or the skin around the catheter may become sore and red. Major cause for occurrence this infection is through unclean hands of healthcare workers and soaked/soiled bandages.

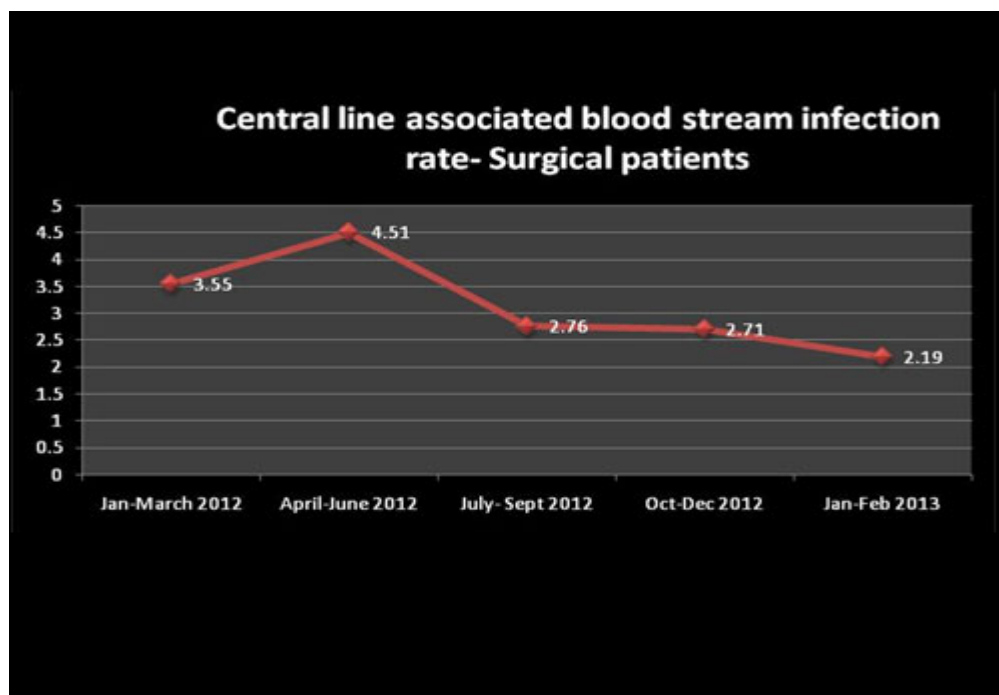


Fig. 9 Central line associated blood stream infection rate- surgical patients

PATIENT SATISFACTION INDEX

An effort in detecting patient satisfaction level is by developing patient satisfaction index which can be used as the indicator of patient's perception towards the service quality.

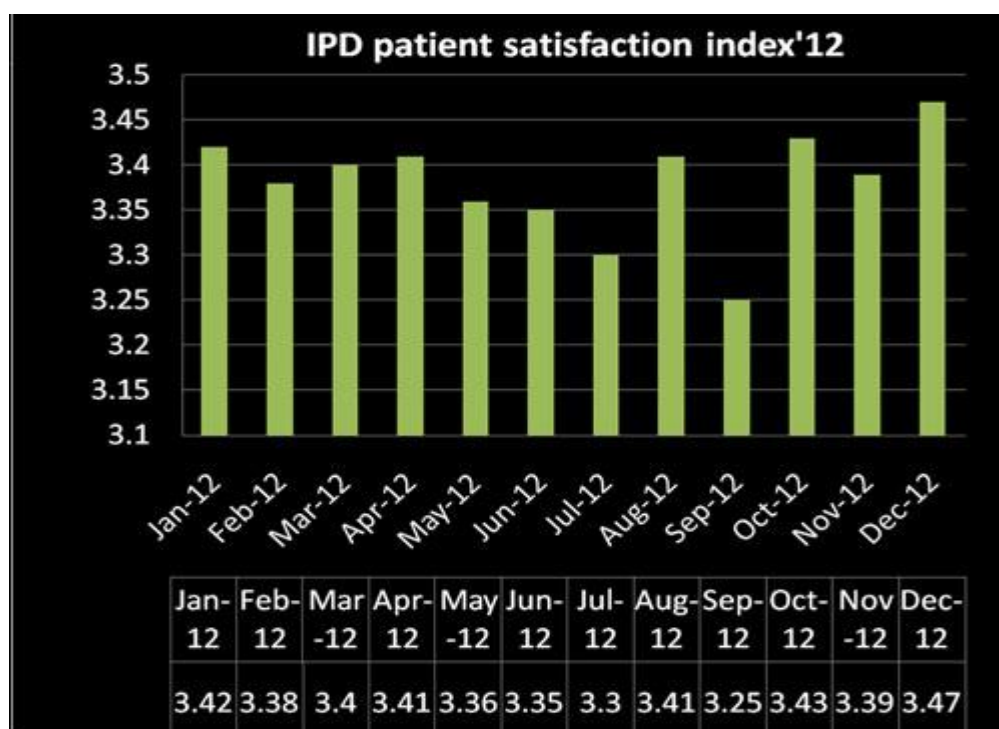


Fig.10 IPD patient satisfaction

RATE OF RETURN TO OT WITHIN 24 HOURS-(OPERATION COMPLICATION)

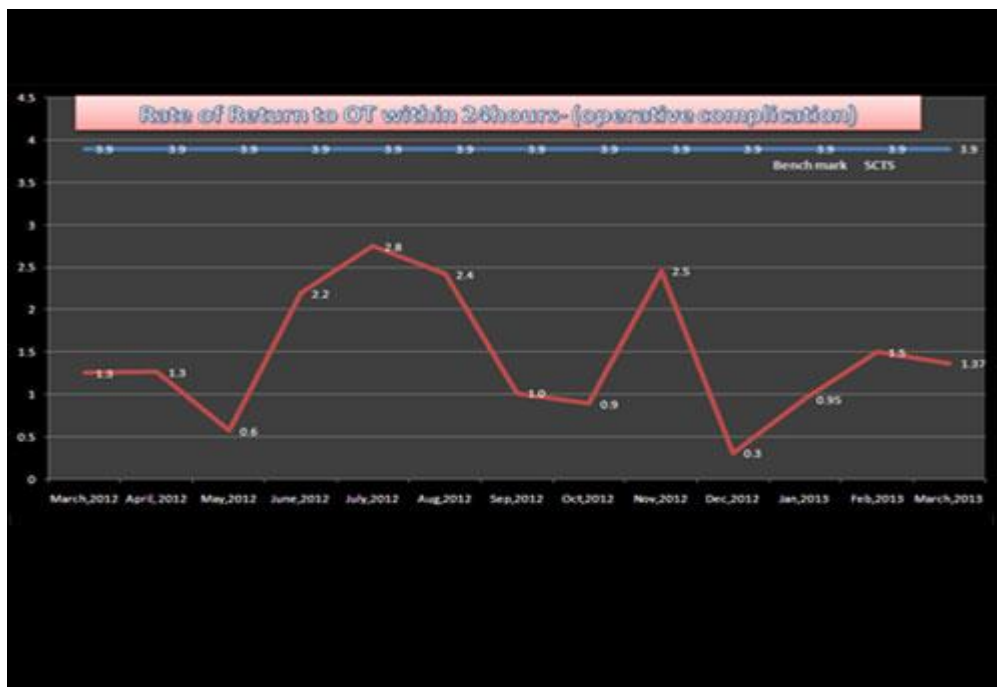


Fig.11 Rate of return to OT within 24 hours(Operation Complication)

DEPARTMENTS

CARDIOLOGY

Overview

Cath Labs:

Cardiac cath lab is currently the hub of activity in any cardiac unit considering the increasing need for angiography/ percutaneous techniques like coronary angioplasty (ballooning). The Fortis Escorts Heart Institute Cardiac Catheterization Laboratory is one of the largest and most advanced Cardiac Cath labs in Asia. The labs have been functional since October 1988 and cardiologists here currently perform more than 12,000 procedures annually.

The Fortis Escorts Heart Institute has four “state of the art” advanced flat panel cardiac cath labs. Of these three labs are for adult/paediatric interventions. One lab is a dedicated Electrophysiology Lab. The staff are well qualified and are leaders in their respective fields. The labs has the distinction of training a large number of cardiologists from India as well as South East Asia in the field of Interventional Cardiology.

Our Services and Procedures

The Cardiac Cath Lab offers diagnostic catheterization of the heart chambers, valves, coronary arteries, aorta and pulmonary circulation.

Interventional procedures performed here include PTCA, including most complex cases, directional atherectomy, rotablator, peripheral angioplasties and valvuloplasty. The hospital also runs a 24 hour acute myocardial infarction intervention (primary PCI) program which is supported by 24 hour functional cath lab, onsite interventional cardiologist, cath lab nurse and technologist. The average “door to balloon time” here is less than 45 min which is comparable to the best centers in the world.

The cath lab procedures are supported by an expert team of anaesthesiologists who make the procedures safe and pain free. Well equipped Day cath facilities, pre and post cath areas of international standards make the procedure a very pleasant experience.

CARDIOTHORACIC SURGERY

Overview

The Fortis Escorts Heart Institute has one of the largest, most experienced cardiac surgery teams in the world. Over the last 22 years, more than 70,000 patients have had their heart surgery performed at Fortis Escorts - ranging from mitral valve surgery to cardiac bypasses to complex aortic and arch surgeries. The Fortis Escorts Heart Institute Department of Cardio Thoracic and Vascular Surgery offers cardiac surgery patients:

Outstanding surgeons

Our cardiac surgeons are skilled, compassionate, and internationally renowned as leaders of their field.

Range of Cardiac Surgical Service

Experience and outcomes matter when choosing a hospital for your heart surgery. Fortis Escorts heart surgeons have vast experience and expertise in all areas of heart surgery including:

- Bypass surgery
- Valve surgery
- Congenital heart surgery
- Aortic surgery
- Atrial fibrillation surgery
- Hypertrophic cardiomyopathy surgery
- Heart failure surgery
- Minimally invasive heart surgery

The Fortis Escorts Heart Institute performs the most number of coronary artery bypass operations in India, with a success rate of over 99%. Even complex operations, such as second and third bypass operations and aortic and great vessel surgery, are routinely performed at Fortis Escorts with excellent results.

Latest Advances

Fortis Escorts heart surgeons are on the cutting-edge of new, advanced treatment options that were once considered inconceivable, such as minimally invasive cardiac surgery, “off-pump” bypass surgery.

PAEDIATRIC CARDIOLOGY



Fig.12

Overview

Being a single specialty hospital, Fortis Escorts Heart Institute works single mindedly towards providing the best to heart patients. In the private sector Fortis Escorts Heart Institute is the only hospital with a specialized multi disciplinary team of Paediatric Cardiologists, Paediatric Surgeons, Anaesthesiologists and Paediatric Intensivists who work only towards child cardiac care. This highly trained team is vastly experienced and has pioneered several cardiac techniques for children. The department has produced results that are comparable to the best in the world.

The department does extensive echocardiographic work on children and is one of the rare centres that feel confident in operating the child based on the echocardiographic evaluation alone.

Cardiac defects in foetal life (unborn child) are also diagnosed using specialized echocardiography techniques.

Several Invasive Paediatric Interventions are performed routinely:

Dilating obstructive valves- Balloon Valvuloplasty

Dilating narrow blood vessels- Balloon Angioplasty Closing abnormal blood vessels by coil or devices like Patent-ductus Arteriosis, AV Fistula Atrial septal defects- by devices placed percutaneously.

Similarly, stage-surgery of complex heart defects and re-do surgeries are performed, in keeping with the institute's status as a Tertiary Referral Centre in the country.

Our Services

DIAGNOSTIC:

- Angiography
- Foetal echocardiogram

Surgical:

- Repair of birth defects in the heart of children and adults

Non-Surgical:

- Detection of heart diseases in children and adults (Paediatric cardiology), including babies still in the womb of the mother (Foetal Echocardiography).

PEDIATRIC & CONGENITAL CARDIOLOGY & SURGERY

Overview

Paediatric & Congenital Surgery

Fortis Escorts Heart Institute has 2 Paediatric Cardiac Surgical Units headed by Dr. K.S. Iyer and Dr. Rajesh Sharma and has one of the busiest and most successful cardiac surgical programs in the India comparable to the best in the world.

Internationally acceptable surgical results : *Overall surgical survival > 97%*

- The surgical results of both simple and complex cases are internationally acceptable and are comparable to the results of leading units in North America, England and Europe. An audit is done regularly and the surgical results are compared with the surgical results of the European Association of Cardiothoracic Surgeons data base.
- The overall survival rate has been consistently more than 97 % for the last seven years. The survival rates for simpler cases has been more than 99% and for more complex cases between 89-95%.

Profile of surgeries performed:

The profile of surgeries performed ranges from operations on 1 day old babies to adults with late presenting congenital heart disease. Surgeries performed range from surgery for atrial septal defects , ventricular septal defects, tetralogy of Fallot (survival outcomes > 99%) to arterial switches, surgeries for total anomalous pulmonary venous connection, surgeries for single ventricle situation (bi-directional Glenn, extra-cardiac Fontan operation), and other complex surgeries and surgeries for serious heart conditions – conduit repairs, re-operations, double switch procedures etc. (survival outcomes > 95%). The unit specializes in patients presenting with late complications such as pulmonary hypertension, ventricular dysfunction and polycythemia.

Improving immediate and long term outcomes by continuing education

- The unit is focused on developing newer and innovative methods to steadily improve both immediate and long term results of Paediatric heart surgery. There is tremendous emphasis on teaching, continuing medical education, in-service training and partnerships with many international and overseas units to ensure that all members of the team are up to date with the latest and most recent developments in the specialty.
- The unit is a world-renowned unit and many of the team members are faculty members at International meetings and are invited to contribute actively at these scientific meetings.

PREVENTIVE AND REHABILITATIVE CARDIOLOGY

Overview

Programmes and Services

- Lifestyle Management
- Lipid Management
- Hypertension Management
- Stress Management
- Nutrition Counseling
- Smoking Cessation

- Post CABG Surgery Follow-up Care
- Post PTCA Follow-up Care
- Post Valve Surgery Follow-up Care
- Preventive Health Checkups
- Adult Vaccination Clinic

Objectives

- To promote healthy lifestyles amongst clients visiting Escorts Heart Institute and Research Centre, New Delhi in order to reduce their risk factor burden for heart and blood vessel disorders.
- To provide a platform for close surveillance of heart patients following adverse clinical events and early identification of recurrence of significant clinical problems.
- To identify asymptomatic heart disease, blood pressure, diabetes mellitus, substance abuse, depression, and other psychosocial problems.
- To identify and suggest remedial measures for the psychosocial problems of the clients enrolling in the programme.

Justification

Preventive and Rehabilitative Care is often neglected in most tertiary cardiac care centers of this part of the world where the focus lies on emergency care and interventional and surgical procedures. Nevertheless, it is an important area of care that addresses to the need for structured nutrition counseling, exercise prescription, smoking cessation, and weight, lipid, blood pressure, diabetes, and psychosocial risk factor management. Incorporating such care in conventional medical/surgical management is known to improve long-term successful outcomes.

ANAESTHESIOLOGY & CRITICAL CARE



Fig. 13

Overview

Department of Anesthesiology and Critical Care at the Fortis Escorts Heart Institute, New Delhi has consistently maintained highest standards in patient care and has greatly contributed to the success of surgical and interventional cardiology programmes that Fortis Escorts is known for.

The department of anesthesiology has over 30 doctors including 15 consultants, and 35 technicians who together manage 9 fully equipped state-of-the-art operating theatres, 4 cardiac catheter labs, 32 postoperative recovery room beds, emergency and road and air ambulance services at the Fortis Escorts Heart Institute

besides providing expert services to other satellite centers like Faridabad, Jodhpur, Gwalior, Allahabad and Raipur. Equipped with the latest and best monitoring and life support systems, all operating rooms have the facilities to carry out trans-esophageal echocardiography for real time assessment of anatomic and functional status of the heart while the surgery is in progress.

The department of anesthesiology has successfully managed wide range of complicated cardiac and non-cardiac surgical cases, in patients few hours old newborns to nonagenarians, with equal ease and competence by a team of experienced and dedicated anesthesiologists. All patients scheduled for surgery or interventions to be monitored by anesthesiologists, are visited by anesthesiologists prior to the procedure for complete assessment and planning. In addition, the pre-anesthetic sessions are meant to answer queries that patients may have, and patients are also encouraged to participate in planning out the techniques that would best suit them. Patient comfort, pain relief and patient safety are accorded the top priority; relevant data is laboriously collected for every patient and is periodically analyzed to incorporate practices that would ensure constant improvement.

The department is academically very active, and is recognized center for post-doctoral fellowship programme in the field of cardiac anesthesiology under National Board of Examinations. The department has also started its own fellowship programme in cardiac anesthesiology. Two of the faculty members (Dr Karlekar and Dr Dhole) are recognized teachers by the Indian Society of Critical Care Medicine for training fellows in critical care medicine.

CRITICAL CARE MEDICINE

Overview

What is Critical Care Medicine?

Critical Care Medicine (CCM) is a specialty that involves the management of patients with life threatening, frequently complex medical and surgical illnesses. The CCM physician, is also called an Intensivist in some parts of the world, has expertise in the evaluation and management of these critically ill patients. These patients may have dysfunction or failure of one or more organ systems, like cardiac, pulmonary, neurology, liver and kidney.

Fortis Escorts Critical Care Programme.

Escorts critical care programme is designed to give services to those patients who are in need of Intensive Care management particularly patients often referred from remote areas where such expertise is not available.

The department of Critical Care Medicine at Fortis Escorts Heart Institute is recognized both nationally and internationally as a leader in research and education. The department's mission is to provide an exceptionally high level of critical care & emergency services, and to recruit, maintain, and train a highly qualified staff of health care professionals devoted to the care of the critically ill.

Facilities available at Fortis Escorts Critical Care units.

Critical Care Unit at the Fortis Escorts Heart Institute is equipped to manage critically ill patients involving single or multiple organ systems. Fortis Escorts Heart Institute has the highest critical care beds to total bed strength ratio in Delhi & NCR. All beds have latest state of the art monitoring equipment. We also have facilities for organ support like bedside hemodialysis for patients with renal failure, ECMO for ARDS patients, latest generation ventilators with newer modes and other organ support systems.

RADIO IMAGING

Overview

Radiology has become increasingly interventional, therapeutic as well as diagnostic & good coverage of these procedures is presented by internationally acknowledged practicing experts.

The department of Radio diagnosis & Imaging is equipped with advanced state of the art Somatom Definition Dual Source CT scanner with optimized performance for cardiac & cardiovascular applications. The real value of this CT scan is its ability to provide a non – invasive means of examining internal body structures including heart & diagnosing disease. With ECG gating and faster scanning CT coronary angiography is possible & because of its non-invasiveness, OPD basis & low cost of the procedure it is considered as ‘gate-keeper’ for the catheter coronary angiography. Full converge of coronary tree is acquired in a single breath hold. The major advantage over conventional angiography is the ability of visualize the coronary wall as well as the coronary lumen. Calcified & non-calcified atherosclerotic lesions can be visualized in the coronary wall. Coronary Calcium Scoring is an effective screening tool for detection of the earliest appearance of coronary artery disease & can be used as marker for progression of coronary atherosclerosis.

1.5 tesla Cardiovascular MR is another modality installed in the department for the non-invasive imaging of heart & great vessels. MR angiography is a non invasive method to evaluate the patency of blood vessels without resorting to invasive conventional X-ray angiography. MR digital subtraction angiography (MRDSA) is performed with intravenous injection of MR contrast in an arm vein. It can be performed in the neck (carotids), head, body, arm & body. Peripheral angiographies can be performed in a few seconds with the results comparable with the conventional angiography which is considered to be the gold standard. All these angiographic studies can be reconstructed in 3D and can thus be reviewed in all the planes. In addition whole body MR imaging can also be performed with this scanner in a very short time.

General ultrasound is designed to keep pace with newer, advances & to cover all areas of ultrasound. The areas include abdominal (liver, biliary, pancreas, gastrointestinal tract, peritoneal and abdominal wall), retroperitoneum (vascular, general, retroperitoneal, kidney & lower urinary tract), pelvis, musculoskeletal, breast, chest, neck, small parts & interventional chest & abdominal ultrasound. 4 D Color Doppler ultrasound scanners with convex, linear, sector, Transcranial, pediatric & endocavitary transducers are used to perform ultrasound.

Mammography is performed to screen healthy women for signs of breast cancer. Mammogram screening is recommended every year for all women age 40 and older. The test uses a special, low dose x-ray machine to take pictures of the breasts. The results are recorded directly on to a computer or on x-ray film.

Bone Densitometry is a clinically proven method of measuring bone mineral density (BMD). This provides valuable tools in assessing osteoporosis & other disease states characterized by abnormal BMD. It is also considered an accurate estimator of fracture risk.

For the conventional radiography & diagnostic procedures department has 800 MA set with image intensifier with two Computed Radiography systems and five portable X-ray machines.

In case of emergency to expedite developing & processing of the films, two automatic processors have been installed.

Infrastructure

XRAY MACHINE

POLYDORSO LX 30	BONE DENSITOMETRY
MOBILETTE (PORTABLE MACHINE)	HOLOGIC QDR SERIES (EXPLORER)
Mobilite Plus E	
MAMMOGRAPHY	ULTRASOUND
METALTRONICA FLAT SE	LOGIQ 500 (G.E.)
	ENVISOR (PHILIPS)
	ACUSON X- 500(SIEMENS)
C.T.SCAN (OUTSOURCED)	M R I
SOMATOM DEFINITION (SIEMENS)	CARDIO VASCULAR MR (1.5 TESLA) (G.E)
FILM PROCESSOR	
AGFA CLASSIC EOS	

Latest Technology

Dual source 64slice C.T. Scan. (SOMATOM DEFINITION (SIEMENS))

Unique Features of Achieva

- Achieva offers Best magnet homogeneity at large Field Of View (0.5ppm at 50cm DSV) for overall good image quality. This is more important in Orthopedic/joints imaging like fat suppressed shoulder imaging, knee imaging since both of them require off centre imaging.
- It will play key role in whole body imaging (with and without fat suppression), body, imaging in large patient, body diffusion.
- Achieva offers largest field of view (imaging volume in x, y and z direction) in the industry: Do examinations in lesser number of stations. This will make patients stay shorter in the magnet. This will avoid patient rejection because of large body size in a few patients.
- It is very easy to manage good magnet homogeneity by offering long tunnel magnet. But Achieva has managed the best magnet homogeneity by offering patient tunnel as short as 60 cm, magnet length 157 cm and offering flaring of the magnet. This makes it the most homogeneous magnet keeping excellent patient comfort in mind.
- Adds to the patient comfort further by having the dockable patient trolley option. Transfer the patients without lifting the patient, quickly and in a hassle free way.
- This is the fastest scanner in the industry. The radiologist can accelerate the examination by factor 16 and angiography by factor 60.. This will put the user in command of opting for required speed, temporal

resolution and spatial resolution as per requirement of the study. Also it will help in making shorter patient stay in the magnet for restless patient and will provide higher throughput.

- Enjoy the highest resolution in the industry: 2048X2048 (2K) imaging matrix !! See more and more finer details of the anatomy. It produces excellent images in Angio, MSK and neuro imaging.
- Reduce the spectroscopy time by accelerating the exam. The examination time can be reduced as per the requirement upto sub-minute examinations.
- Scan the patient more than 2m tall head to toe without restriction.
- Own the most sophisticated equipment in the industry. Make the examinations totally automatic by having fully automated planning, scanning and processing. It helps the Hospital to have wonderful reproducibility of excellent images, patient after patient and user after user forever.

Our Services

- General Radiology
- Special Radiology
- Ultrasound
- C.T. scan
- MRI
- Bone Densitometry
- Mammography

BLOOD BANK

Overview

The hospital has a licensed and NABH Accredited Blood Bank which is committed to ensure availability of sufficient quantity of safe blood / components using state of the art technology for transfusion to patients.

Infrastructure

The blood bank is capable of processing

- Whole human blood
- Packed Red Blood cells
- Fresh frozen plasma
- Platelet concentrates
- Cryoprecipitates
- Leucocyte depleted red cells
- Plasmapheresis
- Platelet pheresis

The blood bank has 'state of the art' equipment, fully automated, walk-away systems to reduce the human errors. To meet the International Standards of safety, the blood bank provides blood and components which are NAT tested, leucodepleted and antibody detected. Blood grouping, Rh phenotyping, antibody detection and electronic cross-match is done on automated machines in addition to the routine disease markers tests.

The calibration of machines / validation of results are carried out regularly to meet NABH and JCI criteria by way of External / Internal controls and meet the international standards.

Majority of the Donors are Voluntary, meeting strict criteria of selection. Donors to Recipient chain is regulated with Bar-Code System.

APPROPRIATE USE OF BLOOD

Blood is a Drug which has to be administered with great caution. This life saving elixir can save lives but can also prove fatal for the recipient. Regular interaction with the major users of blood is done.

Effective Quality assurance is essential to ensure transfusion of safe, high quality blood and its components.

National Accreditation Board for Hospitals and Healthcare providers (the highest quality assurance wing of Quality Counsel of India), after a thorough check of processes and procedures being practiced at Fortis Escorts Heart Institute Blood Bank appreciated the high standards being maintained and were pleased to grant NABH accreditation. The Blood Bank was amongst the first few in the country to achieve this honour.

Our Services

Approved standard operating procedures are practiced in the blood bank using internationally approved kits / reagents. The services of the blood bank are available 24x7 including Sundays / holidays. In addition to the in-house services, the Blood Bank provides support to other affiliated hospitals for their need of blood / blood components.

DERMATOLOGY

Overview

We at FEHI are committed to providing highest medical and surgical care for diseases and conditions of the skin, hair and nails specially those with most severe and difficult to treat and diagnose, while adhering to highest clinical and ethical standards. Critical care or Cosmetic Dermatology, two distinct ends of Dermatology services are delivered with compassion and international standards. We follow evidence based dermatology and take pride in that.

Services Offered-General Dermatology

- Hair Disorders
- Nail Diseases
- Psoriasis
- Vitiligo and Melasma
- Pediatric Dermatology
- HIV and STD'S
- Autoimmune Bullous Diseases
- Dermatosurgical and cosmetology-Skin Biopsy

- Chemical Peeling
- Mesotherapy
- Acne Scars
- Radiofrequency
- Microdermabrasion
- Cryotherapy
- Antiageing

UROLOGY

Overview

Fortis Escorts Heart Institute has recently launched the Urology and Prostate Centre of Excellence. This centre has resources for state-of-the-art diagnostic testing and treatment for prostate and other urological problems.

Range of treatments available:

- TURP for prostate enlargement
- Laser surgery for prostate enlargement
- HIFU for prostate cancer
- Penile implant for erectile dysfunction

The Urology and Prostate Centre of Excellence at Fortis Escorts Heart Institute is led by Dr. Ashish Sabharwal, who is a leader in the most advanced and minimally invasive treatments for prostate problems.

Patient centered care:

We strive to provide each patient and family member with education, support and world-class medical care extending from his first visit until discharge. We are also proud to provide personal services (including a free “concierge” service for out-of-state patients) that put the comfort and well-being of urology surgery patients before all other considerations.

Superior Outcomes:

The centre has resources for state-of-the-art diagnostic testing and treatment for any type of prostate issue.

Latest Advances:

We provide the most advanced treatments for treating prostate cancer and HIFU (High Intensity Frequency Ultrasound) treatment for prostate cancer.

ORTHOPEDICS

Infrastructure

At Fortis Hospitals the advantage of state-of-art facilities enables our specialist faculty to give medical care and outcomes at par with the best international standards. We provide all the latest procedures, including high-end ones, are routinely performed.

Latest Technology

Facilities

Our two dedicated Operation Theatres of International level where high-end procedures and minimal invasive surgeries are performed. They are equipped with:

- Laminar flow systems to minimize the risk of infection.
- State-of-art Computerized Navigation Equipment.
- State-of-art implants such as high flexion implants

Our Services

Treatments Conducted

- Joint Replacements
- Hip Replacements
- Elbow Replacements
- Arthroscopic Surgeries
- Complex Fractures
- Hand Surgery
- Knee Replacement
- Shoulder Replacement
- Surface Replacement of Hip
- Osteoporosis
- Management of Sports Injuries.

Total Knee replacement

Knee arthritis is more common than hip arthritis.

The replacement is essentially replacing the worn our cartilage of the knee joint. The ligaments and joint capsule are retained, and the damaged cartilage and bone is simply resurfaced-using plastic on the end of the shin bone and metallic plate on the bottom of the thigh bone.

The artificial knee joint relieves pain, corrects the obvious deformity, and stops the joint from giving way.

PULMONOLOGY

Overview

The Department of Respiratory Medicine offers comprehensive service for patients with airway and lung disorders including asthma, lung cancer, chronic obstructive pulmonary disease, pleural diseases, chest

infections, allergic diseases, interstitial lung disease, sleep related breathing disorders and chronic cough to name a few.

The Specialist staff has unparalleled expertise in the diagnosis & treatment of the above disorders. State of Art facilities are available to support the staff in clinical management, training programme & research.

The department offers facilities like Pulmonary Function Testing(with diffusion studies), 2 bedded Sleep Lab, Videobronchoscopy (including Bronchoalveolar lavage, Transbronchial biopsy, Transbronchial Needle aspiration, Bronchial brushings) and Medical Thoracoscopy. Various bronchoscopic interventions such as endobronchial LASERs, placement of stents, Intrabronchial radiation, Removal of foreign body, Balloon tamponading are performed with great skill.

Patients with Respiratory emergencies are provided protocolised care in the modernly designed medical ICU.

A team of accomplished and renowned experts mans the department

The common diseases treated here includes Chronic Obstructive Airway Diseases (COAD/COPD), Bronchial Asthma, Tuberculosis, Sarcoidosis, Interstitial Lung Disease, Allergic Disorders, Pleural Effusion, Lung Cancers, H.I.V, Various Tropical Diseases, Pneumonias, Sepsis and many more.

FACILITIES OFFERED

- Daily OPDs
- Endoscopy Suite
- Bronchoscopy
- Thoracoscopy
- Pulmonary Function Tests
- Sleep Lab
- Smoking Cessation Clinic

NEPHROLOGY

Overview

The department of Nephrology provides a comprehensive service for all modalities of renal therapy to an expanding population of patients. Patients are managed by a team of Nephrologists headed by the Chief Consultant who is an experienced Nephrologist and transplant physician. The main areas of expertise of the team include Acute Renal failure, glomerular diseases, kidney transplant and various forms of dialytic therapies.

Our renal dialysis unit provides 8 state of the art dialysis stations for more stable chronic dialysis. Patients receive dialysis six days a week with morning & afternoon sessions and are treated at any time if necessity occurs. We help to nurture hope & confidence to make life more meaningful.

NEUROLOGY

Overview

Neuro Sciences

The department of Neuro Sciences is the super-speciality setup concerned with the prevention, diagnosis, treatment and rehabilitation of disorders that affect the Brain, Spine and Peripheral Nerves.

The department has professional expertise in all disciplines of neurosciences and is equipped with latest high-end technology.

The neurosciences team is committed to provide highest standards of surgical & non-medical treatment based on best scientific knowledge with human touch. The team comprises of highly skilled Neuro Surgeons, Competent Neurologists, Neuro-Anesthetist, Psychologist, Neuro-Nurses and Rehabilitation experts working in tandem to deliver world class healthcare

DENTAL SURGERY

Overview

Comprehensive Dental Care

Department of Dental Surgery

The teeth are a very important part of the body and good health starts with good oral health. The general well-being is associated with good oral health. New research has shown a close relation between periodontal disease and cardiac disease.

Looking after your teeth then becomes a very important aspect and we at Fortis Hospital provide comprehensive dental care in all specialties of Dental Surgery in an extremely clean and hygienic environment at an affordable cost.

The Dental Department at Fortis Hospital is run by a team of Dental specialists who deal with all kinds of treatments including:-

- Endodontics
- Prosthodontics
- Oral and Maxillofacial Surgery
- Orthodontics
- Pedodontics
- Periodontics
- Implantology
- Cosmetic dentistry

ENDODONTICS is the Branch of Dental Surgery, which treats disorders of the nerve (Pulp) of the tooth.

GENERAL SURGERY, ADULT & PAEDIATRIC

Overview

The Centre of Laparoscopic, Gastrointestinal & Bariatric Surgery at Fortis Escorts Heart Institute, Okhla Road, New Delhi, is well equipped with the most modern facilities and carries out almost all major generals, gastrointestinal, laparoscopic & bariatric surgeries and the Department is well supported by the Intensive care unit for sick patients.

ENT

Overview

- State-of-the-art ENT station, which facilitates conducting of various tests
- 3rd generation diagnostic audiometry set-up for evaluating deafness
- Minimally invasive surgery for sinus and ear problems with state-of-the-art equipment

OPHTHALMOLOGY

Overview

At Fortis Hospitals, Ophthalmology is the branch of medicine which deals with the diseases and surgery of the visual pathways, including the eye, brain, and areas surrounding the eye, such as the lacrimal system and eyelids.

PHYSIOTHERAPY

Overview

Physiotherapy is a health care profession concerned with human function and movement and maximising potential. It is the fourth largest healthcare profession in the world and is a clinical speciality that addresses problems with movement, dysfunction and pain. These can arise from musculoskeletal, neurological, respiratory, and chronic disability conditions, or from mental illness and intellectual impairment. Goals are achieved through comprehensive assessment with individualised treatment combining education, continuous support, home exercise programmes and advice, using knowledge from our extensive scientific background of human anatomy and physiology.

Fortis Escorts Heart Institute (FEHI) is staffed by Physiotherapists who have a wealth of experience in assessing and treating a variety of Cardiac, Musculoskeletal, Neurological disorders and Sports Injuries. FEHI offers a wide range of physiotherapy treatment methods aimed to speed up recovery, restore function and help you return to your normal daily activities at work, leisure or sport. The Physiotherapists at Fortis Escorts are trained in Manual Therapy, Mobilization, Strength training, Endurance training, Balance training, Fitness training, Ergonomic advice and many other specialized techniques.

Patient education being such an important part of delivering medical and service excellence, our therapists incorporate patient education in the daily rehabilitation of patients.

The Physiotherapy department is equipped with all modern Physiotherapeutic Modalities, like

LASER	Ultrasound
Shortwave Diathermy	TENS
Interferential Therapy (IFT)	Traction
Muscle Stimulator	CPM
Hydro collator	PWB

With a highly equipped & spacious Exercise therapy room.

CARDIAC REHABILITATION

Overview

Cardiac rehabilitation is a comprehensive program of supervised exercise, education, and behavior modification, designed to improve the physical and emotional status of patients with heart disease. It is prescribed to control symptoms, improve exercise tolerance, and improve overall quality of life. The ultimate aim is to reduce the risk of future cardiac event and return back to healthier lifestyle.



Fig.14

Supervised Exercise Training

Supervised exercise program of cardiac rehabilitation (rehab) enables patients to be more active and make lifestyle changes that can lead to a stronger heart, better health, and reduce their risk of future heart problems. A team of health professionals designs an exercise program for the patient, based on their current health status and goals. If the patient had a heart attack or recent cardiac surgery, he/she may be afraid to exercise. Also, if they have never exercised, they might not know how to start. Our cardiac rehab team helps the patient to begin slowly and work up to a level that is beneficial for their heart.

NUCLEAR MEDICINE

Overview

Nuclear Medicine has got a tremendous role in cardiac imaging. In fact it is complementary to Coronary Angiography in the assessment of haemodynamically significant lesions which is helpful in the therapeutic decision making . The department of Nuclear Medicine is equipped with advanced state of the art Siemens Symbia Dual Head SPECT Gamma Camera. Nuclear Medicine studies use small doses of radioactive material to assess myocardial blood flow , evaluate the pumping function of the heart as well as visualization of location of a heart attack. The main investigations carried out in nuclear medicine:

Cardiac Tests (95% of cases)

1. Myocardial Perfusion Imaging (MPI)
 - a. Rest – Redistribution study

b. Stress Myocardial perfusion Scintigraphy.

2. Rest-Muga Radionuclide Ventriculography

Non Cardiac Tests

(5% of cases)

1. Renal Dynamic Study
2. Lung Perfusion Imaging
3. Thyroid scans
4. Whole body bone scans

A rest MUGA imaging is the blood pool imaging of the heart and is helpful in the Evaluation of Left & Right ventricular Ejection Fractions (Pumping Function Of The Heart as well as the ventricular wall motion abnormalities.

There are two gamma cameras installed. The installation of new top of the line gamma camera from GE (Discovery NM 530c), which is only the second in the country, has made significant improvements in the Nuclear Myocardial perfusion imaging. It is a cardiac dedicated camera which is based on the semiconductor technology of cadmium zinc tellurium (CZT) detectors and stationary acquisition which uses Alcyone technology. This technology incorporates four innovations :*Solid State Detector Technology , Stationary acquisition Focused collimation & Topographic Reconstruction*. The combination of these four innovations results into improved energy and spatial resolution, high sensitivity and provides clear images and reduces the probability of artifacts and thus can potentially translate into clinical values not seen today with the current technology.

It has got a large number of advantages over the conventional gamma camera:

- Superior technology including superior processing tools which helps in
- *Improved image quality* and reduces the probability of artifacts.
- *Shorter acquisition* time improves patient comfort.
- *Stationary acquisition* provides full volume scans with no moving parts.
- Reduction in quantity of dose administered which **reduces the radiation exposure** to the patients.
- It also **reduces the scanning time to half** thus significantly reducing the test time.
- Fast preparation of report because of **improved processing software**.



Fig. 15

- The imaging can be done even in **semi supine position** which is beneficial to the patients who can't lie down properly because of left ventricular failure
- A **claustrophobic patient can also undergo imaging with ease** because of its configuration (C shaped)

GASTROENTEROLOGY

Overview

Fortis Hospitals offers advanced treatments for a range of Gastro-intestinal disorders. With its superior service, Fortis Hospitals has the ability to provide you with the best possible treatments enhanced by our ethos of compassionate care. Quality treatment at affordable prices.

Latest Technology

The modern facilities for the treatment of GI diseases include

- Dedicated Endoscopy suites to perform various diagnostic tests and treatments
- High-end Endoscopy System and ERCP
- High-end Laparoscopic System for GI Surgeries
- Diagnostics and therapeutic treatment of GI diseases

THORACIC SURGERY AND THORACIC SURGICAL ONCOLOGY

Overview

The Department of Thoracic Surgery and Thoracic Surgical Oncology, Fortis Escorts Hospital

The Department of Thoracic Surgery and Thoracic Surgical Oncology was the first such clinical department in India solely dedicated to the care of patients with non-cardiac thoracic diseases. With the establishment of this department, Fortis Healthcare made a substantial commitment to growth in all areas of clinical thoracic surgery.

This commitment is evidenced in the breadth of diagnostic and treatment services available for patients with benign and malignant tumours and other disorders of the lung, esophagus, mediastinum and chest wall.

This department is now well known for its surgical expertise and is capable of treating all surgical disorders within the domain of surgical chest disorders with results matching international standards. It is also a very prominent centre for thoracoscopic surgery (VATS) in North India.

SLEEP LABORATORY

Overview

The Sleep lab has a 55 channel Philips Respironics Alice - 5 Polysomnography equipment which is located in a dedicated sleep lab. Over night sleep studies are conducted here along with CPAP and BiBAP titration regularly.

**MAIN PROJECT - CRITICAL RESULT
(Lab.)REPORTING WITHIN 15
MINUTES**

INTRODUCTION OF JCI

WHAT IS JCI?

JCI stands for Joint Commission International. It is a US based, not – for – profit accreditation body which sets and addresses standards for the health care provider's level of performance in key functional areas, such as patient rights, patient treatment and infection control.

HOW WILL IT HELP US?

JCI standards would lead us to improved patient care, safety and path of continuous quality improvement. JCI standards would lead us to improved edge. JCI accreditation is the gold standard for U.S. and European hospitals as it reflects provision of the highest levels of patient care and patient safety.

Benefits of JCI accreditation and certification

- Improve public trust as an organization that values quality and patient safety
- Involve patients and their families as partners in the care process
- Build a culture open to learning from adverse events and safety concerns
- Ensure a safe and efficient work environment that contributes to staff satisfaction
- Establish collaborative leadership that strives for excellence in quality and patient safety
- Understand how to continuously improve clinical care processes and outcomes

The key to success in your journey to accreditation is the commitment to the process by the board of directors, president/general director and the clinical leaders in your organization. Because senior leaders are accountable for the overall system's processes to ensure quality and patient safety, their support and commitment are essential to your organization being successful. Accreditation preparation must be a priority in your organization.

JCI Accreditation Process Time Line

JCI STANDARDS

The patient centred standards are:

1. International Patient Safety Goals(IPSG)
2. Access To Care And Continuity Of Care (ACC)
3. Patient and Family Rights(PFR)
4. Assessment of Patients(AOP)
5. Care of Patients(COP)
6. Anaesthesia and Surgical Care(ASC)
7. Medication Management And Use(MMU)
8. Patient And Family Education(PFE)
9. Quality Improvement And Patient Safety(QIPS)
10. Prevention And Control Of Infections(PCI)
11. Governance , Leadership And Direction(GLD)
12. Facility Management And Safety(FMS)
13. Staff Qualification And Education(SQE)
14. Management Of Communication And Information(MCI)

BUILDING A CULTURE OF QUALITY IMPROVEMENT

JCI calls for setting standards for quality of clinical care and patient services. Our aim is to do the right thing, the right way, the first time every time.

How does JCI Accreditation Process Impact a Hospital?

- By seeking accreditation, an organization opens its doors for an independent, top-to-bottom evaluation of patient-focused care activities, as well as organizational systems
- JCI accreditation is a visible commitment by an organization to improve the quality of patient care the organization provides
- JCI accreditation is known as the “gold standard” in accreditation around the world, making this external stamp of approval a valuable one.

What Do You Find in JCI Accredited Organizations?

A culture of quality and patient safety

- An integrated management structure
- Qualified staff
- Lower risks and data on the risks
- Quantifiable outcomes of care
- Medical staff use latest

Impact of JCI Process on Leadership

- Results in greater consensus at top level around quality and safety
- Greater collaboration at departmental level evolves
- Senior leaders take on new roles that impact middle management
- Accountability is more clearly defined
- Data provides an opportunity for real time, proactive management

Benefits for the Hospital

- Improves care and enhances public confidence
- Recognition by Payers, Governmental Agencies and Vendors
- Provides the framework for an integrated and focused management structure

Benefits for the Medical Staff and Nursing Staff

- Provides leadership for quality improvement within medicine and nursing
- Increases satisfaction with working conditions, leadership and accountability
- Provides clear processes to ensure competencies are matched with clinical responsibilities and competencies are maintained or expanded
- Provides a framework for professional accountability
- Professional ethics oversight
- Medical and Nursing care quality
- Scientific/professional communication
- Planning and policy development
- Provides a framework for merging “science” with quality improvement
 1. Practice Guidelines

- 2. Care Pathways
- 3. Research
- Provides for the oversight of health professional education in the hospital

Benefits for Hospital Employees

- Values employee opinions
- Measures employee satisfaction
- Involvement in quality activities
- Improved employee safety and security
- Provides for employee health program
- Clear lines of authority and accountability
- Promotes teamwork

Benefits for Patients

- Access to a quality focused organization
- Rights are respected and protected
- Understandable education and communication
- Satisfaction is evaluated
- Involvement in care decisions and care process
- Family valued in the care process
- End of life care and pain management are appropriate to their need
- Clear processes to resolve care issues or address complaints

Accreditation may benefit hospitals by accomplishing the following:

- Helping hospitals organize and strengthen their improvement efforts
- Enhancing staff education
- Enhancing risk management
- Facilitating staff recruitment
- Promoting team-building skills for staff

INTRODUCTION OF IPSG- International Patient Safety Goals

These are 6 goals:

IPSG.1 Identify patient correctly

IPSG.2 Improve effective communication

IPSG.3 Improve the safety of high alert medication

IPSG.4 Ensure correct site, correct procedure and correct patient surgery

IPSG.5 Reduce the risk of health care associated infection

IPSG.6 Reduce the risk of patient harm resulting from fall

GOALS	REQUIREMENTS
IPSG.1	1. Use of at least two patient identifiers. 2. Before Administering medications, blood, or blood products. 3. Before taking blood and other specimens for clinical testing. 4. Before providing treatments and procedures.
IPSG.2	1. Verbal and telephone order or test result is written down by the receiver and read back by the receiver. 2. The order or test result is confirmed by the person who gave the order.
IPSG.3	1. Policies to address the location, labeling, and storage of Concentrated electrolytes. 2. Concentrated electrolytes are not present in patient care.
IPSG.4	1. Ensure the correct site, correct procedure, and correct patient 2. Mark surgical site identification and involve the patient in the marking process 3. Verify that all documents and equipment needed are on hand, correct, and functional 4. Use time-out procedure before starting a surgical procedure
IPSG.5	1. Policies to reduce the risk of health care–associated infections 2. Adopt or adapt currently published and generally accepted hand hygiene guidelines 3. Implement an effective hand hygiene program
IPSG.6	1. Policies to reduce the risk of patient harm resulting from falls. 2. Implement initial assessment of patients for fall risk and reassessment When indicated. 3. Implement measures to reduce fall risk for those assessed to be at risk.

Why it is important for an organization?

The purpose of the international patient safety goals is to promote specific improvements in patient's safety. The goals highlights problematic areas in health care and describe evidence based consensus solutions to these problems.

Patient safety is a collaborative goal that requires concerted efforts from the patient and all members of the health care team. It is also a means to foster communication between the patient and the nurse including other health care members to better patient's health. Advocating for patient safety is a nurse's role, it is also necessary for the patient to be an active participant in their safety.

The IPSGs represent proactive strategies to reduce risk of medical error and reflect good practices proposed by leading patient safety experts. Incorporating these new tools into our requirements is a significant step.

INTRODUCTION OF IPSG – Goal 2

Improve Effective Communication

Effective reporting back of Critical Results within 15 mins

OBJECTIVE: To improve effective patient care through identifying factors relating with the laboratory reports.

Significance

- To Reduce Medication Errors
- To Decrease Errors in Reporting Critical Test Results
- To Reduce Confusion
- To Increase Cohesiveness of the Staff

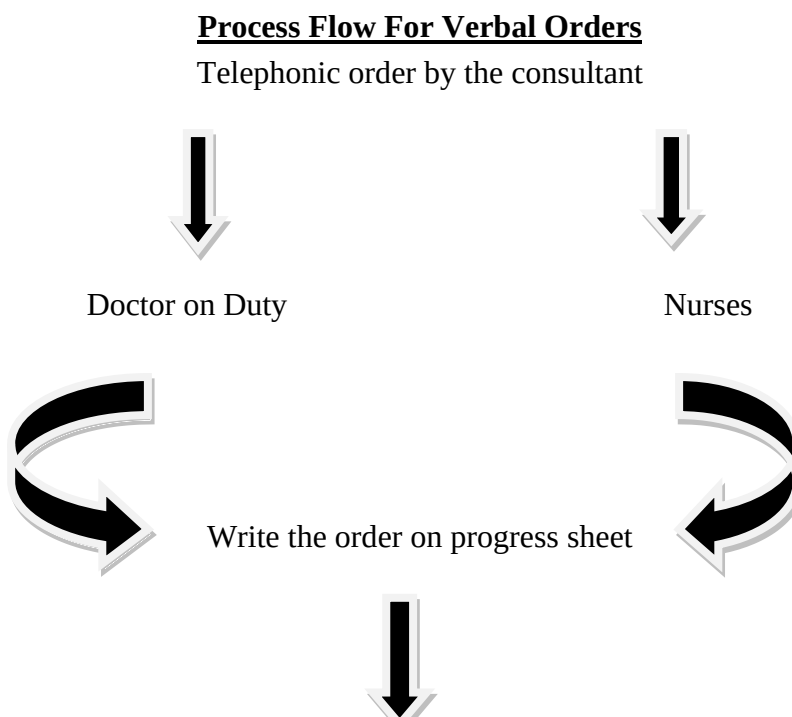
Verbal orders

“They are prescription or medication order that are communicated as spoken communication between sender and receiver face to face, by telephone or by other auditory device”.

Salient Features

1. Verbal orders are to be limited to the barest minimum required for patient safety
2. Verbal orders follow the “Read Back” procedure Verbal orders between doctors are allowed.
3. The receiving doctor shall document the order in the progress sheet
4. Nurses shall follow only orders written in the progress sheet

METHODOLOGY : Prospective critical result documentation on patient file and lab reports.



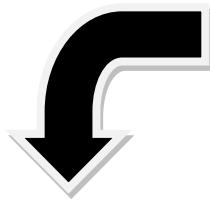
Read back the complete order



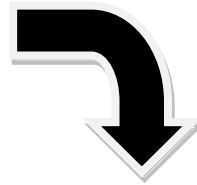
Doctor giving the order shall clearly state whether the order is correct or not



Order received

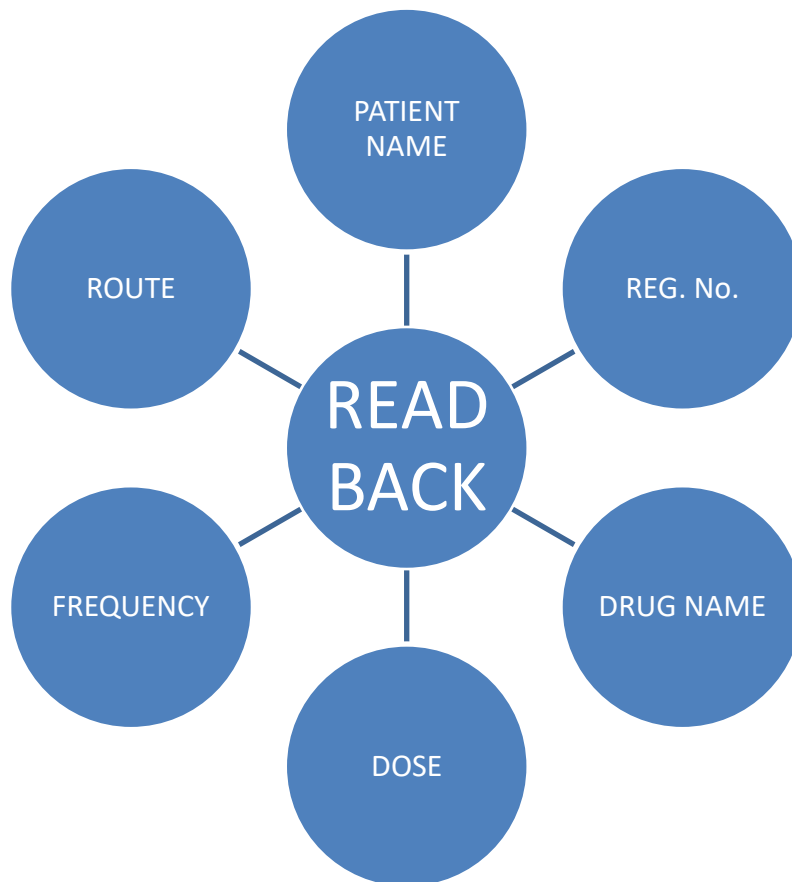


Document with Date, Time and Signature



Document with date and time
countersigned by a doctor

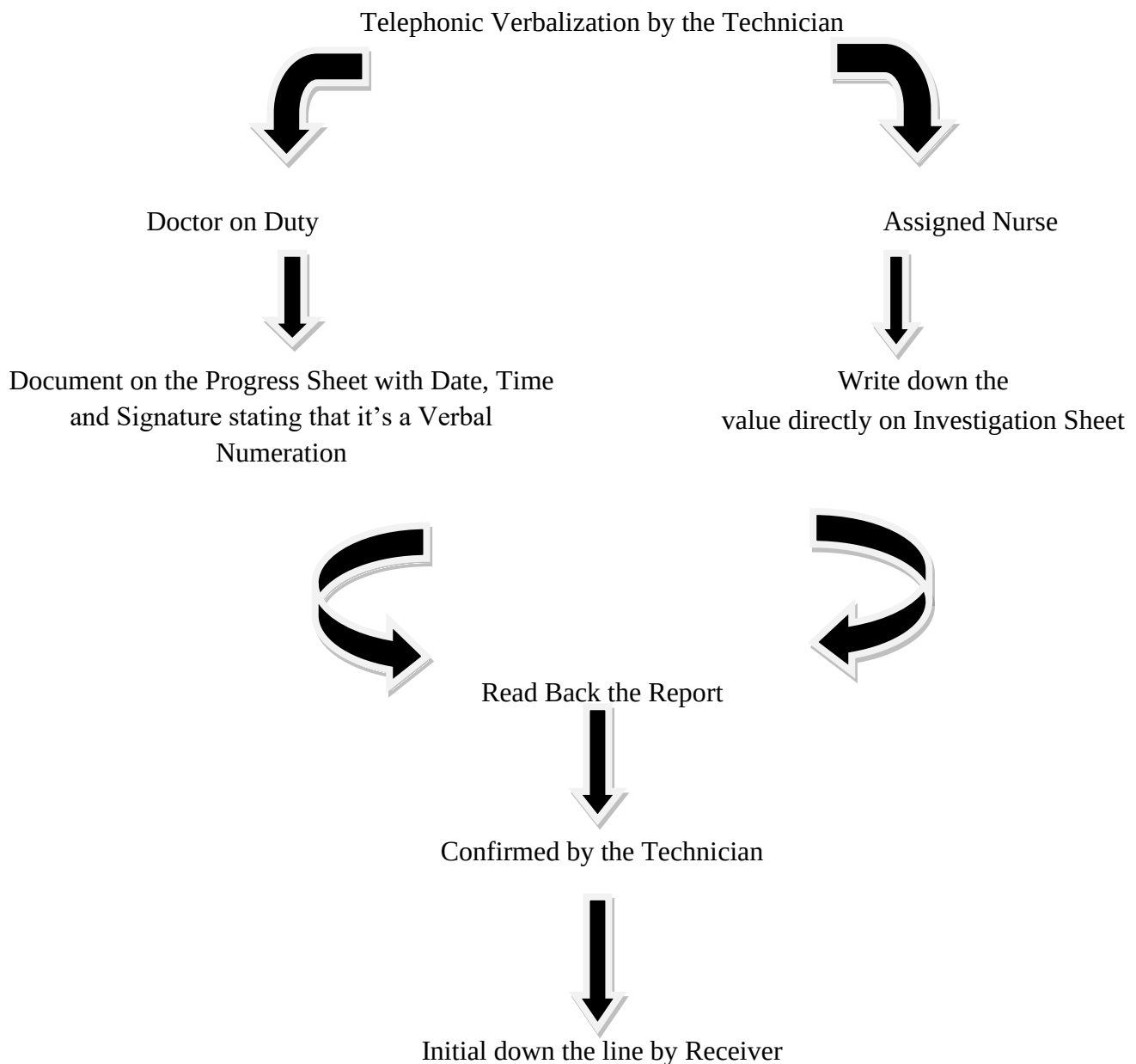
SUGGESTIONS TO PREVENT ERRORS



Intimation of Critical Values

- The critical values is informed to the treating Consultant/ Doctor on duty / Area Nurse depending upon the responsibility
- The concerned request this information to be “Read Back” to them in order to verify accuracy
- The Shift In charge is responsible for documenting the result

Process Flow To Receive Telephonic Lab Values



Situations for Nurses to Follow Verbal Orders

- Code Blue Situation
- Serious nature of patient condition
- Diet Orders
- Insulin orders where a patient is on sliding scale.
- Inotropes that has been written as “ continuous infusion and titrated against BP”.
- Diagnostic reports on the phone in an emergency situation

○ the complete verbal and telephone order or test result is written down by the receiver of the order or test result.

○ The complete verbal and telephone order or test result is read back by the receiver of the order or test result.

○ The order or test result is confirmed by the individual who gave the order or test result.

Working to improve Patient safety is a major strategic priority



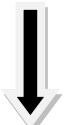
Quality and Patient Safety Plan

CREATING A SAFETY CULTURE

- Patient Safety Culture Survey
- Patient Safety Leadership workarounds
- Promoting for Just Culture

- JCI Patient Safety Goals

DETECTION AND ANALYSIS

VOLUNTARY REPORTING	SYSTEMATIC
• Blood Transfusion • Clinical Incidents • Fall related • Laboratory & Pathology Related • Medical Record Office Related • Medication Error and Near Misses • Pressure Ulcers • Radiology & Radiotherapy Related • Security Related • Sharp Injury & Body Fluid splash • Surgery & Operating Room related  Head of Departments and Process Owners	• Deaths • Readmissions within 15 d • Returns to OT • Returns to ICU Systematic Chart Reviews  Morbidity and Mortality Review Officers  Dept Peer Review  Hospital Peer Review

IMPROVEMENTS

Clinical Practice Improvements Projects

- Medication Safety
- SBAR
- Fall Prevention Program
- Pressure ulcers Prevention

TRAINING AND ORGANISATIONAL LEARNING

Communication week

FINDINGS

Total samples are 256 which includes sample of haematology, biochemistry and microbiology lab. Comparison between the actual reporting time and benchmark time has been done for each lab and we have achieved the goal. In each lab critical result reporting is within 15 mins .

Comparison are shown in graph below:-

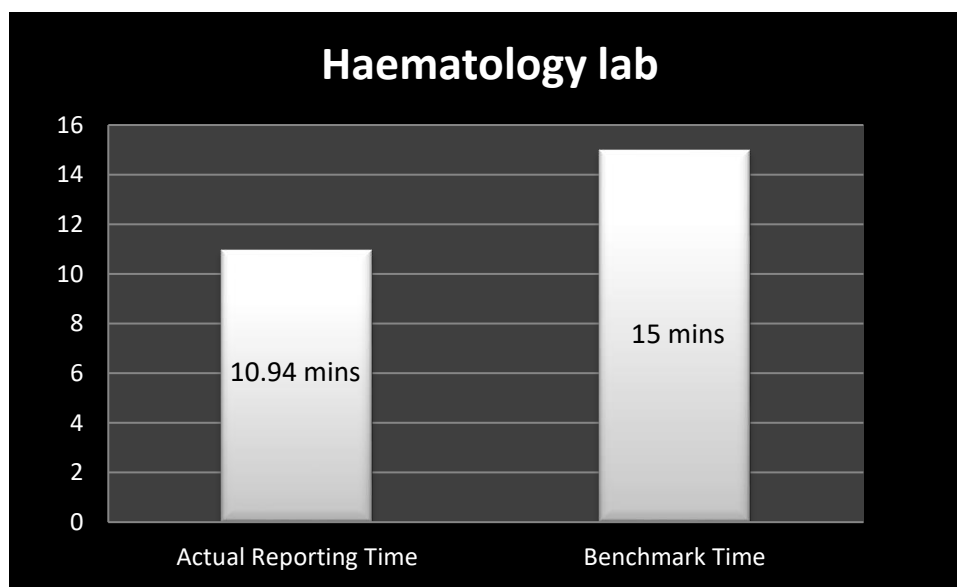


Fig. 16 Comparison between actual reporting time and benchmark time of haematology lab

In haematology lab , the average of actual reporting time is 10.94 mins and the benchmark time is 15 mins , hence the actual reporting time is within the benchmark time as shown in the fig.16

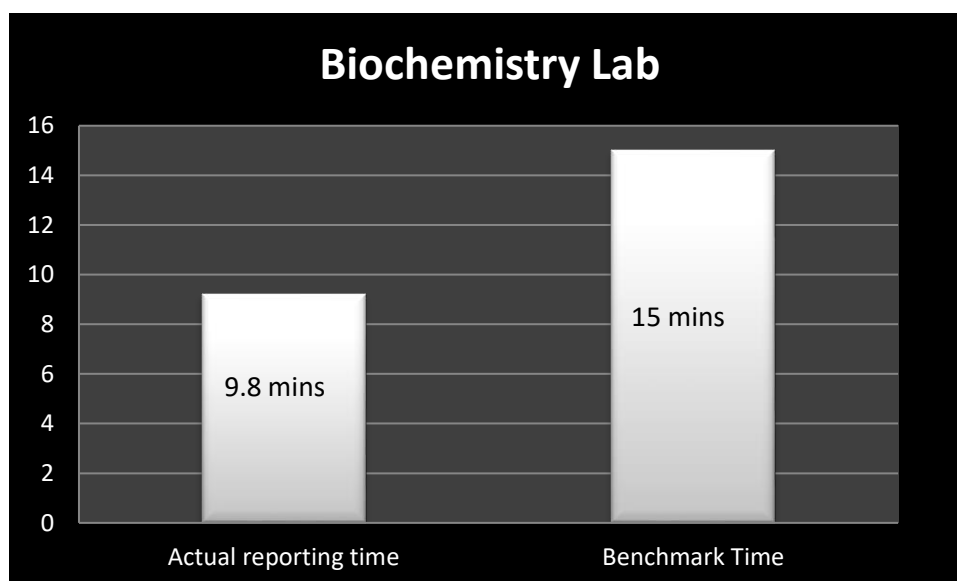


Fig.17 Comparison between actual reporting time and benchmark time of Biochemistry lab

In Biochemistry lab , the average of actual reporting time is 9.8 mins and the benchmark time is 15 mins , hence the actual reporting time is within the benchmark time as shown in the fig.17

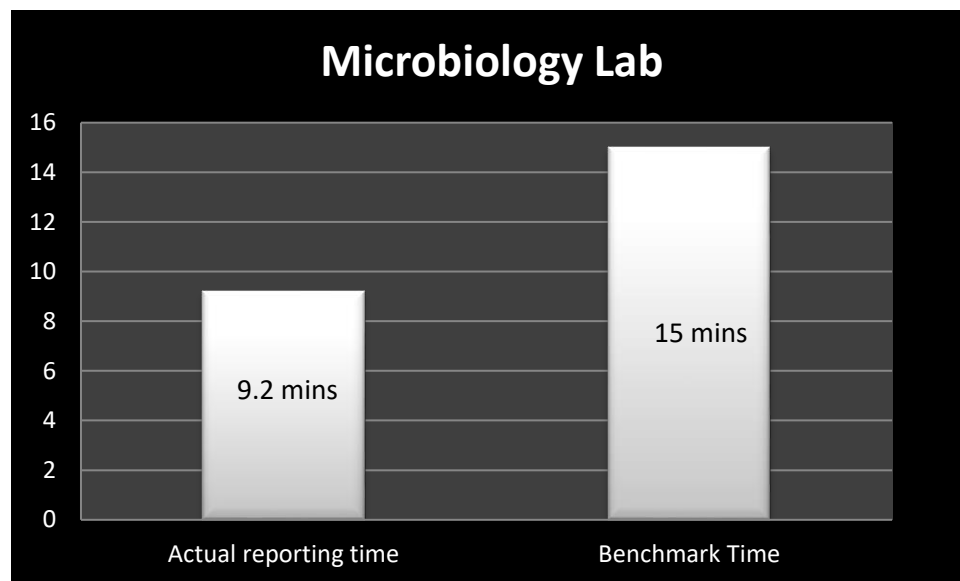


Fig. 18 Comparison between actual reporting time and benchmark time of Microbiology lab

In Microbiology lab , the average of actual reporting time is 9.2 mins and the benchmark time is 15 mins , hence the actual reporting time is within the benchmark time as shown in the fig.18

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