Internship Training

At

Max Super Specialty Hospital, Saket

(March 15 to June 14, 2022)

Dissertation Title

An Assessment of Operational Efficiency of GI Endoscopy Services at Max Super Specialty Hospital, Saket, New Delhi

By

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PG/20/104

Under the guidance of

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PGDM (Hospital & Health Management)

2020-2022

International Institute of Health Management Research

New Delhi

The certificate is awarded to

Colonel Vikram

in recognition of having successfully completed his Internship in the department of

Centre for Gastroenterology, Hepatology & Endoscopy

Institute of Liver & Gastrointestinal Sciences

and has successfully completed his Project on

An Assessment of Operational Efficiency of GI Endoscopy Services

March 15 to June 14, 2022

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

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The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.
The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavours.

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

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ABSTRACT

Efficiency can be described in various ways depending on one's discipline and viewpoint within that subject. In medical field, it is referred to providing the most prompt, timely, and cost-effective care possible. As a result, response time, speed, and resource usage limits are frequently emphasised. High-quality gastrointestinal endoscopy is now a main public health screening modality, a vital treatment for outpatient and acute hospital settings, a specialty endeavour for nurses and physicians. Many stakeholders, including patients, physicians, and payers, place a high value on efficiency.

The main objective of this study is to assess the operational efficiency of Gastrointestinal Endoscopy Services at Max Super Specialty Hospital, Saket. This was ensured by; the measurement of the operational quality compliance of Endoscopy department with respect to JCI standards for IPSG and ASC, measuring compliance in standardisation in informed consent forms and also measurement of the performance of the department in respect of patient waiting time for the said services.

The study was conducted at Centre for Gastroenterology, Hepatology & Endoscopy, Institute of Liver & Gastrointestinal Science, Max Super Specialty Hospital, Saket, from 15 Apr to 15 May 2022, as a cross sectional analytical study based on primary and secondary data collected over 30 days with respect to collection of data of 10 cases per day by randomized sampling method, in all a total of 260 patients' data were collected for the said study.

The department demonstrated acceptable average score of 9.23 and 9.53 which is in compliance with the standards based on the mentioned ME in IPSG and ASC respectively. 83 % of patients (216 out of 260) had confirmed that the procedural benefits

and risks were explained to them while obtaining the informed consent form by the Gastroenterologist. During the analysis, the average wait time for a patient to undergo an endoscopy procedure is 1 hour 27 minutes (87minutes).

Key Words: Gastrointestinal endoscopy, Informed consent, Waiting time, Efficiency, JCI compliance, Inpatient, Outpatient, Invasive procedure, Sign in, Sign out, Time out.

ACKNOWLEDGEMENT

This project report is the result of three months of training, whereby I have been accompanied and supported by many people. It is a pleasant aspect that I now have the opportunity to express my gratitude for all of them.

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Colonel Vikram

PG/20/104

PGDHM – Hospital Batch

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LIST OF ABBREVIATIONS

Content	Explanation
ASC	Anaesthesia and Surgical Care
CGHE	Centre for Gastroenterology, Hepatology & Endoscopy
CHI	Compulsory Health Insurance
CRE	Controlled Radial Expansion
CT	Computed Tomography
DM	Doctorate of Medicine
DNB	Diplomate of National Board
EDG	Esophagogastroduodenoscopy
EGG	Electrogastrogram
EMS	Emergency Medical Services
ERCP	Endoscopic Retrograde Cholangiopancreatography
EUS	Endoscopic Ultrasound
EUS FNA	Endoscopic Ultrasound-Guided Fine-Needle Aspiration
GERD	Gastroesophageal Reflux Disease
GI	Gastrointestinal
HOD	Head of Department
IBD	Inflammatory Bowel Disease
IBS	Irritable Bowel Syndrome
IPD	Inpatient Department
IPSG	International Patient Safety Goals
IVF	In Vitro Fertilization
JCI	Joint Commission International

ME	Measurable Elements
MIS	Management Information Systems
MRI	Magnetic Resonance Imaging
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NORA	Non-Operating Room Anaesthesia
OPD	Outpatient Department
OT	Operation Theatre
POEM	Peroral Endoscopic Myotomy
QMS	Quality Management System

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PART A

HOSPITAL PROFILE

MAX SUPER SPECIALITY HOSPITAL, SAKET

MAX SUPER SPECIALITY HOSPITAL, SAKET

MAX SUPER SPECIALITY HOSPITAL, SAKET

Introduction

Located in the heart of south Delhi, the 530+ bed Max Super Speciality Hospital, Saket, is widely considered as one of the best hospitals in the country. Split into two blocks – East Block (a unit of Devki Devi Foundation) and West Block, it has a complete spectrum of diagnostic and therapeutic technologies, including several which are a First in India and Asia.

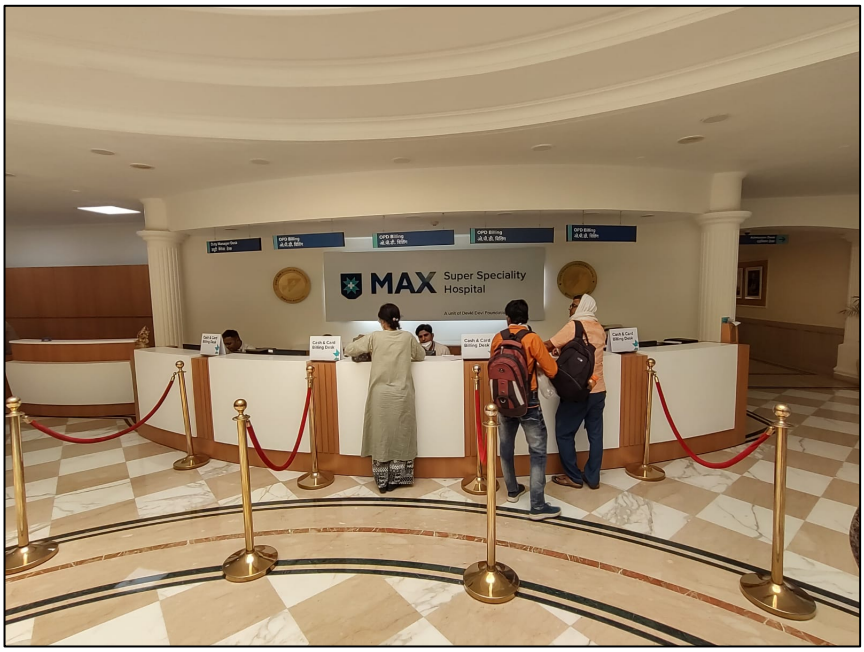


Figure 1: Reception Desk at the East Block

Experts at Max Super Speciality Hospital, Saket, have treated more than 34 lakh patients across 38 specialities, mainly Cardiac, Oncology (Medical, Surgical, and Radiotherapy), Neurosciences, Obstetrics, and Gynaecology, Metabolic and Bariatric Surgery, Liver Transplant, Urology, Nephrology, Kidney Transplant, Aesthetic and Reconstructive Surgery, and other ancillary services. Max Super Speciality Hospital, Saket has a complete spectrum of diagnostic and therapeutic technologies, including several state-of-the-art technologies that are First in Asia and First in India. It has received NABH & JCI accreditation for providing the highest quality of patient safety and care.

Max Super Speciality Hospital, Saket, offers the advantage of integrated medical care in a multidisciplinary setting provided by a faculty of highly qualified doctors, nurses, & healthcare professionals. Max Super Speciality Hospital, Saket, is a regional hub for complex procedures such as neurovascular intervention, targeted cancer treatments, heart surgeries, orthopaedic surgeries, liver & kidney transplant, and fertility treatments.

Max Healthcare Purpose

To Serve. With commitment and compassion in our heart, we deliver the highest standard of patient centered care to those we serve.

To Excel. To excel from a dream team of doctors and specialists to support staff that goes the extra mile to deliver quality care, excellence in our DNA.

Max Healthcare Vision – "More Care at Every Step of the Way"

To be the most well regarded healthcare provider in India, committed to the highest standards of clinical excellence and patient care supported by the largest technology and cutting edge research.

Max Healthcare Values

Efficiency. We create a responsive healing environment by being nimble to the needs of our patients and delivery what they need with precision and timing. We are focused yet fast, personal yet practical, advanced yet seamless in providing the exact care for our patients.

Excellence. We ask more of ourselves and are always passionate about achieving the highest standards of medical expertise and patient care. We understand that being the best is a continuous journey of becoming better version of ourselves everyday.

Consistency. We always deliver on our commitment and ensure the highest level of patient care is met at every stage, every time. We believe that only through consistency can we achieve our patients' trust and fulfil our goals.

Compassion. We have a deeper level of patient understanding and are always empathetic to their needs. This encourages a culture of patient centered care. We respect each other and our patients, and ensure that their needs are met with dignity. We rise to the occasion each time for we recognise the positive social impact we can create.

Max Healthcare Standards

I will respect the privacy of patients

I will be responsible for uncompromising levels of cleanliness

I will escort the customer whenever approached for directions

I will create a work environment of teamwork

I will ensure that my every interaction leads to patient delight

I will take ownership and resolve complaints to the patient's satisfaction

I will use every opportunity to continually learn and grow

I will always help my colleagues who are involved in patient care

I will protect hospital confidential information and assets

I will take pride in my grooming, language and behaviour

I will treat every patient as my own family

Centres of Excellence

Bariatric Surgery/ Metabolic

Bone Marrow Transplant

Cancer care/ Oncology

Endocrinology and Diabetes

Gastroenterology, Hepatology and Endoscopy

Kidney Transplant

Laparoscopic/ Minimal Access Surgery

Liver Transplant and Biliary Sciences

Neurosciences

Orthopaedics and Joint Replacement

Surgical Gastroenterology

Urology

Other Specialities

Audiology

Audiology and Speech Therapy

Cardiac Arrhythmia

Dental Care

Dermatology

Ear Nose Throat

Electrophysiology Pacemaker

Emergency and Trauma

Eye Care

Gastro-intestinal and Hepatopancreatobiliary Surgical Oncology

Health and Wellness

Infertility and IVF

Internal Medicine

Interventional Cardiology

Interventional Radiology

Lung Transplant

Mental Health and Behavioural Sciences

Nephrology

Nutrition and Dietetics

Obstetrics and Gynaecology

Paediatric

Pain Management

Physiotherapy and Rehabilitation Medicine

Plastic Surgery

Podiatry

Pulmonology

Radiology

Speech Therapy

Thoracic Surgery

PART B

INTERNSHIP

(PROGRAM MANAGER)

CENTRE FOR

GASTROENTEROLOGY,

HEPATOLOGY & ENDOSCOPY

JOB PROFILE OF A PROGRAM MANAGER

During the internship with the "Centre for Gastroenterology, Hepatology & Endoscopy", I was performing the duties of Program manager. The duties included the following aspects:

- To ensure smooth running of the HOD's Office.
- To effectively coordinate with all the internal and external customer of the department.
- To demonstrate knowledge and skills in providing secretarial support through proper document management, MIS and report generation, coordination etc.
- To take minutes of meeting & ensure proper distribution of agenda, minutes and papers for meeting.
- To handle work related to the letters, statements and other related materials.
- To handle the work related to attending of telephone calls, giving appointments &answering the queries of the patients / relatives of the patients.
- To generate timely and accurate MIS reports
- To effectively handle the work related to checking & reply of E-mails on daily basis.
- To maintain and update the documents, filing system.
- To handle the work related to making of Departmental Training Calendar.
- To co-ordinate appointments in consultation with the Head.
- To be judicious while maintaining impress account and Petty Cash Expenses.
- To be well groomed, punctual & adhere to company policies & practices.
- To have complete orientation of QMS and EMS system of Hospital.
- To comply with the service quality process, environmental & occupational issues &policies of

PART C

DISSERTATION

Assessment of the operational efficiency of Gastrointestinal Endoscopy Services at Max Super Specialty Hospital, Saket.

INTRODUCTION

Efficiency can be described in various ways depending on one's discipline and viewpoint within that subject. In medical field, it is referred to providing the most prompt, timely, and cost-effective care possible. As a result, response time, speed, and resource usage limits are frequently emphasised. Optimal efficacy, safety, comfort, and patient satisfaction are all core elements of high-quality care, and efficiency is an important part of it. In a broad sense, the latter outcomes improve efficiency by reducing resource waste on inefficient therapies and patient problems, discomfort, anguish, or discontent. As a result, efficiency and quality are not mutually exclusive goals, but mutually advantageous outcomes.

High-quality gastrointestinal endoscopy is now a main public health screening modality, a vital treatment for outpatient and acute hospital settings, a specialty endeavour for nurses and physicians. Many stakeholders, including patients, physicians, and payers, place a high value on efficiency. On each of these levels, optimal facility and service design, as well as expert administration for efficiency, quality, and safety, are critical.

A medical procedure that allows you to view inside your body is known as an endoscopy. During an endoscopic therapy, an endoscope is utilised to look inside the cavity or the hollow organ of the body. Endoscopes are introduced directly into the organ or orifice, unlike many other medical imaging techniques..

There are different types of endoscopic procedures. An endoscopy is conducted by an endoscopist, who is generally either a doctor or a surgeon, depending on which part in

the body and the type of procedure. The patient can either be awake or unconscious during the surgery.

Endoscopy can be used to investigate digestive issues include nausea, vomiting, stomach pain, swallowing problems, and gastrointestinal bleeding. It's also used to make diagnosis, most commonly by doing a biopsy to check for anaemia, bleeding, inflammation, and intestinal cancers. This procedure can be used to cauterise a bleeding vessel, widen a small oesophagus, snip off a polyp, and remove a foreign object, among other things.

Inpatient settings, where patients frequently occupy a hospital bed while waiting for a procedure, endoscopy, like all diagnostic tests, has an influence on the efficiency of a health economy. Diseases including cancer, inflammatory bowel disease, and peptic ulcers can be detected early with shorter patient routes requiring endoscopy. If these disorders are caught early enough, they are usually easier to treat. The efficiency of treatment within and outside the healthcare facility will be harmed by delayed procedures and outcomes.

LITERATURE REVIEW

Guideline for Obtaining Valid Consent for Gastrointestinal Endoscopy Procedures. Although few clinical trials have been conducted in respect to informed consent, the majority of areas are guided by the General Medical Council (GMC) and/or are incorporated in law. Following an iterative voting procedure, a set of recommendations was drafted that covers the vast majority of circumstances that endoscopists may encounter. The guidelines are separated into parts on providing information and the

consent procedure for patients in a range of situations, as well as consent for patients with and without capacity. All practitioners who request or conduct GI endoscopy, or are engaged in the pathway of such patients, should read this guidance. If implemented, this paper will improve the experience of patients having an endoscopy in the United Kingdom units.

Informed Consent for Upper Gastrointestinal Endoscopy. To give informed consent for an upper gastrointestinal endoscopy, the patient must first understand the procedure's nature and aim, as well as be given the time to think about it and ask questions. In a prospective study, 200 outpatients completed questionnaires before and after endoscopy to assess satisfaction with the referring doctor's information, a standard information sheet was sent out two to four weeks before endoscopy. In 79 percent and 68 percent of cases, the referring doctor stated the purpose for the endoscopy and how it will be conducted. Only 54 percent of the endoscopy unit's first 100 patients had studied the standard consent form prior to actually signing it. Before they arrived at the facility, 95 percent of the next 100 patients read the amended form that came with the information sheet and 88 percent signed it. A basic endoscopic consent form handed together with the information sheet is preferred by most patients, because it safeguards against individuals requiring endoscopy without informed consent.

Promoting Efficiency in Gastrointestinal Endoscopy. The expansion of gastrointestinal endoscopy as a specialist field has necessitated specialisation in facility design and administration, as well as a great deal of interest in ways to improve efficiency. Improving efficiency requires an understanding of processes and awareness of present performance. Adequate information and data, which can only be provided by hospital management information system and the medical record, considerably facilitates

performance tracking and development. When the proper tools and commitment are available, almost every area of service in the endoscopy unit may be improved and made more efficient.

Non-Operating Room Anaesthesia in the Endoscopy Unit. The number of cases conducted in remote locations is increasing as both monitoring technology and anaesthetic techniques improve, and many institutions have estimated that up to 30% of anaesthetics are provided outside the operating room. In the last decade, the demand for NORA has skyrocketed. Many elements have a role in this. Most hospitals have areas where the facilities have been adjusted to provide patients with cutting-edge diagnostic and therapeutic alternatives. Success in the planning and implementation of a NORA requires not only the proper selection of a care location, but also the proper selection of an anaesthetic technique, proper pre-procedure evaluation, pre-procedural optimization of comorbidities when needed, and proper provider selection.

Efficiency of Performing Pulmonary Procedures in a Shared Endoscopy Unit: Procedure Time, Turnaround Time, Delays, and Procedure Waiting Time. The goal of this study was to see how efficient it was to perform pulmonary procedures in a tertiary hospital's endoscopy section. From May 20 till July 19, 2013, a prospective study was planned. The major outcome indicators were procedure delays and their causes, the length of procedural steps starting with the patient's entry at the endoscopy unit, turnaround time, total case durations, and procedure wait time. As a consequence of gastrointestinal and surgical cases spilled into the pulmonary treatment block period, the majority of pulmonary treatments were delayed. The most common cause of scheduling difficulties with the pulmonary surgery was a lack of available slots. This resulted in a longer procedure wait time. Reduced procedure delays and turnaround times, as well as

enhanced scheduling systems, have a positive effect on the amount of procedures conducted in the department, allowing resources to be better utilised.

Efficiency of an endoscopy suite in a teaching hospital: delays, prolonged procedures, and hospital waiting times. Increased demand for screening colonoscopies needs increased endoscopy unit efficiency, particularly more effective and efficient use of existing resources. Goal of this research was to evaluate the efficiency and effectiveness of a big tertiary care teaching hospital's endoscopy unit. 675 endoscopic operations for 625 patients were watched by the research assistant (207 inpatients [33 percent]). 42.1% of the procedures were of Colonoscopy, trailed by 36% of EGD. Overall, 193 of the 625 patients had their procedures delayed by 15 minutes, with 136 out of 193 delayed due to a physician not being available to commence the surgery. There was a delay of more than 30 minutes for 47 out of 193 delayed procedures. About 22% of procedures (130/593) had their duration prolonged. Endoscopic treatments were significantly delayed due to physician unavailability. Reduced procedural delays may have a favourable impact on the amount of procedures performed in the unit, allowing for more efficient use of existing resources.

RATIONALE

Medical diseases affecting the gastrointestinal tract are, to say the least, uncomfortable. The digestive system can be quite the problem child, with anything from constipation and diarrhoea to colitis and a wide host of disorders most frequently known by their acronyms (IBS, IBD, and GERD, for example).

Thankfully, gastroenterologists now have a variety of imaging test methods at their disposal to study the reasons of symptoms that may be causing havoc in our digestive tracts. An endoscope is used in some of the most popular procedures performed by doctors, such as colonoscopy, cystoscopy, and sigmoidoscopy.

Seeing within the gastrointestinal tract is incredibly useful for gastroenterologists. The purpose of an esophagogastroduodenoscopy, as it is known in medical terms, is to obtain a real-time visual inspection of the upper part of the gastrointestinal tract. An upper endoscopic tube and camera are fed down the oesophagus, through the stomach, and into the duodenum, which is the first part of the small intestine, as opposed to a colonoscopy, which entails the camera entering the rectum.

In some cases, an endoscopy can be paired with ultrasound to obtain more detailed views of the inner linings of the digestive tract organs. Similarly, for organs of the digestive system that are more difficult to access (such as the pancreas or liver), ERCP procedure employs an endoscope to inject a contrast medium into the organ, allowing it to be seen on radiographs.

Many endoscopic units have gotten less attention from management than imaging or pathology departments, and they lack a direct voice in decisions regarding service planning and funding in many acute hospital trusts. Part of the reason for this is the relatively short life span of capital items used in endoscopy, such as cameras and endoscopes, as opposed to MRIs and CTs, which are another type of diagnostic equipment that is much more expensive and has a two/three times longer life span than most endoscopy equipment. Endoscopy as a specialty has not been able to generate the same levels of concern due to capital expenditure and asset depreciation. Endoscopy, on

the other hand, is critical for the successful treatment of serious disorders, including the majority of types of GI cancer.

Research Question

An assessment of adequacy of GI Endoscopy Services at Max Super Specialty Hospital, Saket, with respect to operational quality, performance and standardisation.

AIM

Assessment of the operational efficiency of Gastrointestinal Endoscopy Services at Max Super Specialty Hospital, Saket.

OBJECTIVES

- To measure the operational quality compliance of Endoscopy department with respect to JCI standards for IPSG and ASC.
- To measure compliance in standardisation in informed consent forms.
- To measure the performance of the department in respect of patient waiting time for the said services, as a measure of patient satisfaction and promptness in the levels of care.
- To suggest recommendations for improvement.

RESEARCH METHODOLOGY

Study Location. Centre for Gastroenterology, Hepatology & Endoscopy, Institute of Liver & Gastrointestinal Science, Max Super Specialty Hospital, Saket.

Study Period. 15 Apr to 15 May 2022 (30 days).

Study Design. It is a 'Cross Sectional' observational study based on secondary data collected over 30 days with respect to collection of data of 10 cases per day by randomized sampling method.

Study Sample. The study will be performed on the patients undergoing various procedures performed in Endoscopy.

Sample Size. 260 patients.

Sampling Method. Random sampling.

Selection Criteria.

- **Inclusion Criteria.**
    - All the IPD and OPD patients of the Unit-1 of Endoscopy department.
    - All the elective procedures.
- **Exclusion Criteria.**
    - The patients of Unit-2 of the Endoscopy department.
    - All the emergency procedures.

Sources of Data

- **Primary Data**
    - Unstructured interviewing of staff and technicians.
    - Time and Motion study.
- **Secondary Data**. Records of patients in GI Endoscopy.

Data Analysis Plan. Data was collected and analysed using Microsoft Excel.

Expected Outcome

- Study the existing process flow of the Endoscopy in the hospital and identify the problem areas.
- To measure performance as a measure of compliance towards JCI.
- To assess adequacy of various pathways in the continuum of care such as informed consent.
- Waiting time estimation with a sample of patients from IPD and OPD.
- Recommend strategies that could improve the service components in the endoscopy services.

Timelines

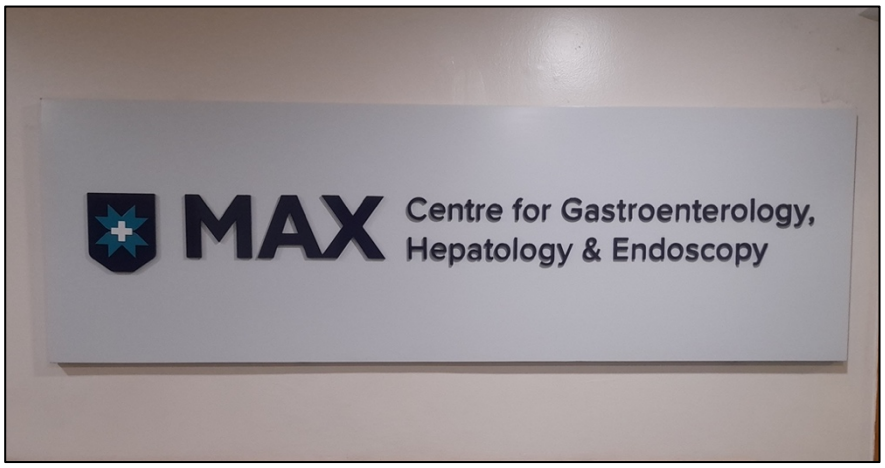
Ser No	Phases	Activities	Timelines
1	Phase 1	Observation & understanding of the services and process flow of the Endoscopy department.	15 Mar to 31 Mar 2022
2	Phase 2	Understanding the JCI standards and criteria related to surgical and anesthesia care and assessment and data collection.	01 Apr to 14 Apr 2022
3	Phase 3	(i) Assessment of JCI standards and criteria related to surgical and anesthesia care data collection. (ii) To measure compliance in standardisation in informed consent. (iii) Time and motion study in order to collect data for waiting time.	15 Apr to 15 May 2022

4	Phase 4	Data analysis and Result compilation	16 May to 14 Jun 2022

Ethical Considerations.

- Rights of the respondents and informed consent will be ensured.
- Rights of the institution where the study is conducted will be ensured.
- Scientific honesty will be maintained.
- Will not be exploring sensitive issues before a good relationship has been established with the informant/ respondent.
- The privacy and confidentiality of data obtained will be ensured.

CENTRE FOR GASTROENTEROLOGY, HEPATOLOGY & ENDOSCOPY



Overview

Gastroenterology is the branch of medicine that deals with diseases and disorders of the gastrointestinal tract. The branch also encompasses the study of gastrointestinal organs such as the liver's function, digestion and absorption, waste elimination, and so on. The stomach, oesophagus, pancreas, gallbladder, liver, small and large intestines, and pancreas can all be affected by gastrointestinal disorders. To provide gastrointestinal therapy and effective health care for patients, a gastroenterologist must have a broad scientific knowledge.

Gastroenterologist

A gastroenterologist (DM gastroenterology) is a physician who specialises in gastrointestinal and provides all types of medical treatments relating to the specialty. They receive training in the treatment of liver and gastrointestinal disorders. To diagnose and treat diseases efficiently, the gastroenterologist takes a thorough grasp of the symptoms at presentation, such as difficulty swallowing, constipation, heartburn, loose movements, vomiting, and renal haemorrhage. Max Healthcare is dedicated to providing our patients with world-class healthcare services to treat life-threatening acute medical conditions.

Gastroenterologists are experts in the field and conduct substantial research concerning gastrointestinal endoscopic therapy and procedures, as well as the interpretation of results. Furthermore, what sets them apart from other physicians who provide similar services is their ability to give broad, accurate, and thorough care for patients with gastrointestinal disorders. Peptic ulcer, irritable bowel syndrome, inflammatory bowel disease, esophageal cancer, and colon cancer are some of the conditions and treatments that gastroenterologists deal with. Endoscopic therapeutic treatments are also performed by them.

Endoscopy is a type of endoscopic treatment that allows doctors to make a more accurate diagnosis of the patient's ailment. The test is performed using an endoscope, which is a flexible tube with a small camera connected to it. The urinary tract, respiratory tract, ear, gastrointestinal tract, and reproductive system are all commonly inspected with an endoscope. Endoscopy is a procedure performed by a gastroenterologist to determine the origin of abdominal pain, gastrointestinal bleeding, ulcers or difficulties swallowing, polyps or growth in the colon, and digestive cancer. Following a positive diagnosis, the doctor determines the best medical treatment to cure the problem.

Advantages of Endoscopic Procedures

There is minimal blood loss, less pain, no tissue or muscle stress, and a reduced risk of infection with endoscopic treatment. The benefits of endoscopic treatment and procedures in the domain of gastroenterology have greatly increased during the previous several decades. In the same way, the technologies employed in gastroenterology therapy have improved, lowering the risk of problems. As a result, the procedures indicated by a gastroenterologist can simply treat or avoid these issues. When considering whether or not to utilise endoscopic treatments during a gastrointestinal consultation, the

gastroenterologist often considers whether the procedures' potential advantages outweigh the risks.

Gastroenterology Treatment

Treatment for gastrointestinal usually begins in a gastroenterologist's office or a hospital. It usually starts with the patient's blood pressure, heart rate, and weight being recorded by clinic staff. They keep track of the patient's prescriptions, allergies, and medical history as well. The doctor may perform blood testing, X-rays, motility tests, and endoscopic procedures and interventions during the consultation. The entire appointment takes from 30 minutes to an hour, or longer if the gastroenterologist is performing endoscopic procedures at the same time.

Introduction of the Department

The Gastrointestinal Department is experienced in treating a wide range of gastroenterology illnesses of varied severity. The department treats illnesses of the oesophagus, stomach, small intestine, and colon, as well as pancreas, liver, and biliary tract.

All procedures and investigations are performed in an environment with state-of-the-art facilities. Various procedures such as third space endoscopy, Upper GI Endoscopy, colonoscopy, flexible sigmoidoscopy, bronchoscopy, paracentesis, liver biopsy, spiral Enteroscopy, Endobariatric procedures and ERCP are being routinely performed in the department. Non-invasive GI Lab & motility studies have been recently added in the department and are fully functional. The Endoscopy unit is located in Basement -1 (East Block) of the main hospital. It has 5 procedure rooms and 5 observation beds.

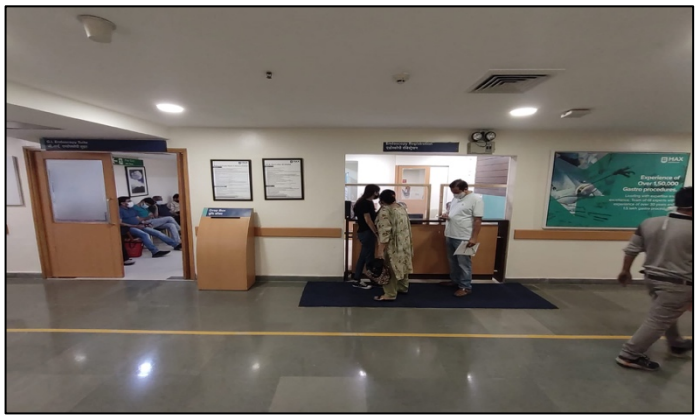


Figure 2: Reception at the Endoscopy Department

Figure 3: Waiting Area

Figure 4: Billing Counter

Mission

To provide the utmost care with clinical excellence embracing cutting edge technology for gastroenterological disorders.

Vision

Gastroenterology department is recognized as a leader in highest quality patient centered care.

Goals of the Department

Proficient management of gastrointestinal and liver diseases encountered in hospitalised patients and outpatients.

Recognize, assess, and respond to gastrointestinal emergencies (e.g. acute gastrointestinal haemorrhage, acute abdominal pain, fulminant colitis, biliary obstruction, liver failure, ingested foreign bodies etc.)

To demonstrate competence in performance of various diagnostic & therapeutic gastroenterological procedures.

Figure 5: Procedure Rooms

Figure 6: Recovery Room

Figure 7: Manometry Room

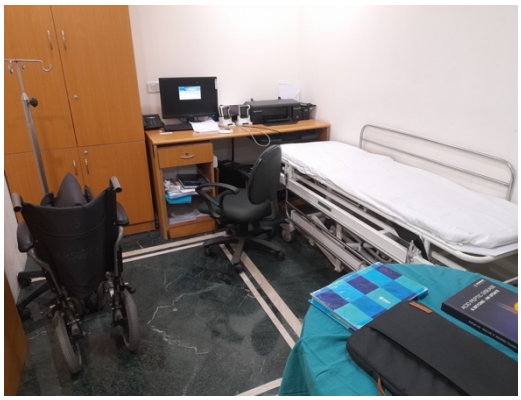


Figure 8: Fibroscan Room

Figure 9: Endoscopy Room

Figure 10: OPD Complex

Figure 11: Colonoscopy Room

Figure 12: ERCP Procedure Room

Human Resources in Endoscopy Department

Table 1

S No	Designation	Nos
1	Head of Department	3
2	Program Manager	3
3	Senior Consultant/Consultant	8
4	Senior Resident	2
5	DNB Fellow	2
6	Junior Resident	4
7	Dietician	2
8	Nursing Team Lead	1
9	Nurse Practitioner	4
10	Endoscopy Nurse	5
11	Endoscopy Technician	7
12	Patient Care Executive	3

Types of Procedures Performed

Various categories of procedures which are performed in the Endoscopy department are given below, however the various types of sub procedures under these categories are attached as Appendix 'A'.

Endoscopic Retrograde Cholangiopancreatography (ERCP). A doctor can use an endoscopic retrograde cholangiopancreatography to diagnose and treat disorders with the liver, gallbladder, bile ducts, and pancreas. The ducts (tubes) that convey bile from the

liver to the gallbladder and from the gallbladder to the small intestine are examined using X-rays.

Endoscopic Ultrasound. Endoscopic ultrasound is a technique for creating a computer image of the inside of the oesophagus and stomach using sound waves. The endoscope is sent through the mouth and throat, followed by the oesophagus and stomach. This permits the physician to observe the interior of this section of the body, as well as insert instruments to extract a sample of tissue, just like regular endoscopy (biopsy).

Esophageal Manometry. Esophageal manometry is inserting a short flexible tube into the stomach through the nose. A local anaesthetic gel is used to numb the nose prior to the surgery. It takes roughly an hour to finish the study.

Small Bowel Manometry. Small bowel manometry, also known as antroduodenal manometry, is a technique for determining the efficacy of small intestinal muscle action. It is split into two parts:

Part 1 – While the patients are sedated, this section of the treatment takes place in the X-ray department. the doctor will insert a narrow flexible tube into the patient upper gastrointestinal system using an endoscope. It takes around an hour to complete the first half of the research.

Part 2 – The manometry room is where this step of the operation takes place. The patient should be awake by the time he/ she goes to the manometry room. The flexible manometry tube will be attached to a machine that will calculate the various pressures in the small intestine. The patient will consume a light supper during this time. This meal will demonstrate how the small intestine responds to food. This section will take roughly six hours to complete.

Upper GI Endoscopy (EGD). A scope is used to examine the oesophagus, stomach, and the first section of the duodenum.

Colonoscopy. The colon is visualised from the rectum to the cecum (beginning of the large intestine) during a colonoscopy.

24-Hour PH Monitoring. A 24-hour pH monitoring test determines whether acid from the stomach is refluxing into the oesophagus, producing pain, nausea, heartburn, and chest pain. A narrow flexible tube is inserted through the nose into the oesophagus for this test. A topical anaesthetic gel is used to numb the nose before the test.

Sigmoidoscopy. Sigmoidoscopy is a procedure that allows you to see the first eight inches of your colon. This test does not necessitate sedation. This test looks for colon cancer and assesses chronic diarrhoea, internal haemorrhoids, and rectal ulcers.

Liver Biopsy. A liver biopsy is an important diagnostic tool for determining whether or not you have liver disease. During a liver biopsy, a needle is used to extract a tissue sample from the liver.

Endobariatrics. Endoscopic Sleeve Gastroplasty and Intra Gastric Ballooning are two of the techniques included. They are a type of non-invasive endoscopic surgery that is used to treat obesity.

Spiral Enteroscopy. Spiral enteroscopy is a minimally invasive method that allows for therapeutic interventions in the small bowel without the need for invasive surgery. Until

recently, accessing the small bowel was difficult, and treatments for the area were mostly surgical.

Colonic Transit Study. The colonic transit study is an older technique to estimate colonic transit time.

Controlled Radial Expansion (CRE) Balloon. It's designed to be used to dilate airway tree strictures endoscopically.

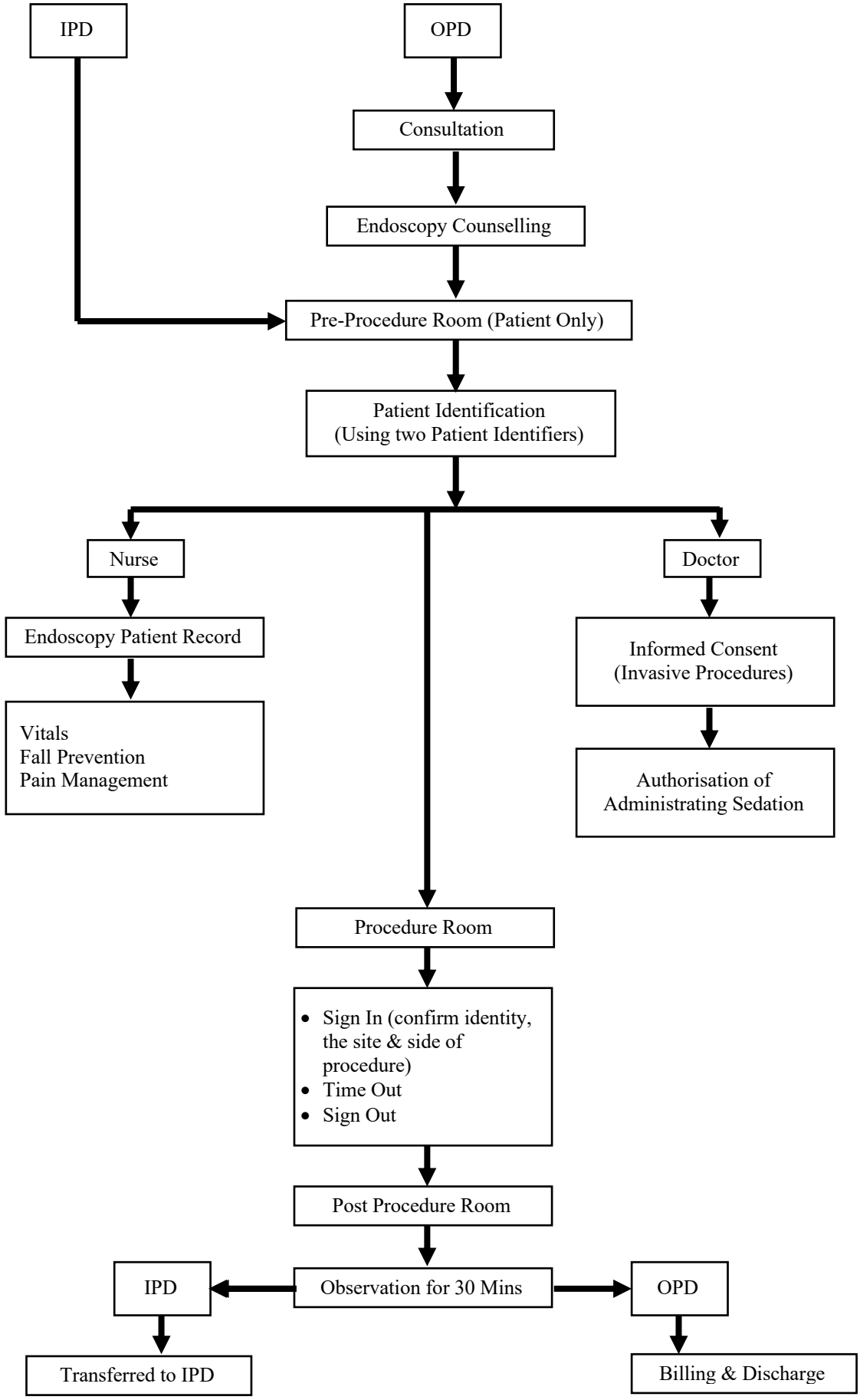
Fibroscan. A Fibroscan is a non-invasive, painless treatment that is used to check the health of the liver. A probe is put on the skin's surface during the scan. A numerical value quantifying the "stiffness" of the liver is recorded using a combination of an elastic wave (produced by a mechanical pulse) and ultrasound technology. This could be a sign of liver scarring (fibrosis), which can develop to cirrhosis and cancer.

Peroral Endoscopic Myotomy (POEM). POEM is a type of endoscopic operation that is used to treat swallowing difficulties, the most prevalent of which being achalasia. POEM is an endoscopic treatment that is still relatively new. This is an in-patient surgery that can take anywhere from one to three hours. Achalasia and associated swallowing difficulties are caused by the oesophagus muscles and lower oesophageal sphincter muscles failing to relax, making it difficult to swallow and pass food into the stomach. An endoscopic technique, especially for swallowing difficulties, has the advantage of requiring no incisions in the chest or belly and requiring little or no hospitalisation afterward.

Capsule Endoscopy. Capsule endoscopy is a process that involves taking photographs of the digestive tract with a small wireless camera. The patient swallows a vitamin-sized pill with a capsule endoscopy camera. The camera in the capsule takes thousands of photographs as it goes through the digestive tract and transmits them to a belt-mounted recorder around the patient's waist. Clinicians can view inside the small intestine with capsule endoscopy, which is difficult to access with traditional endoscopy.

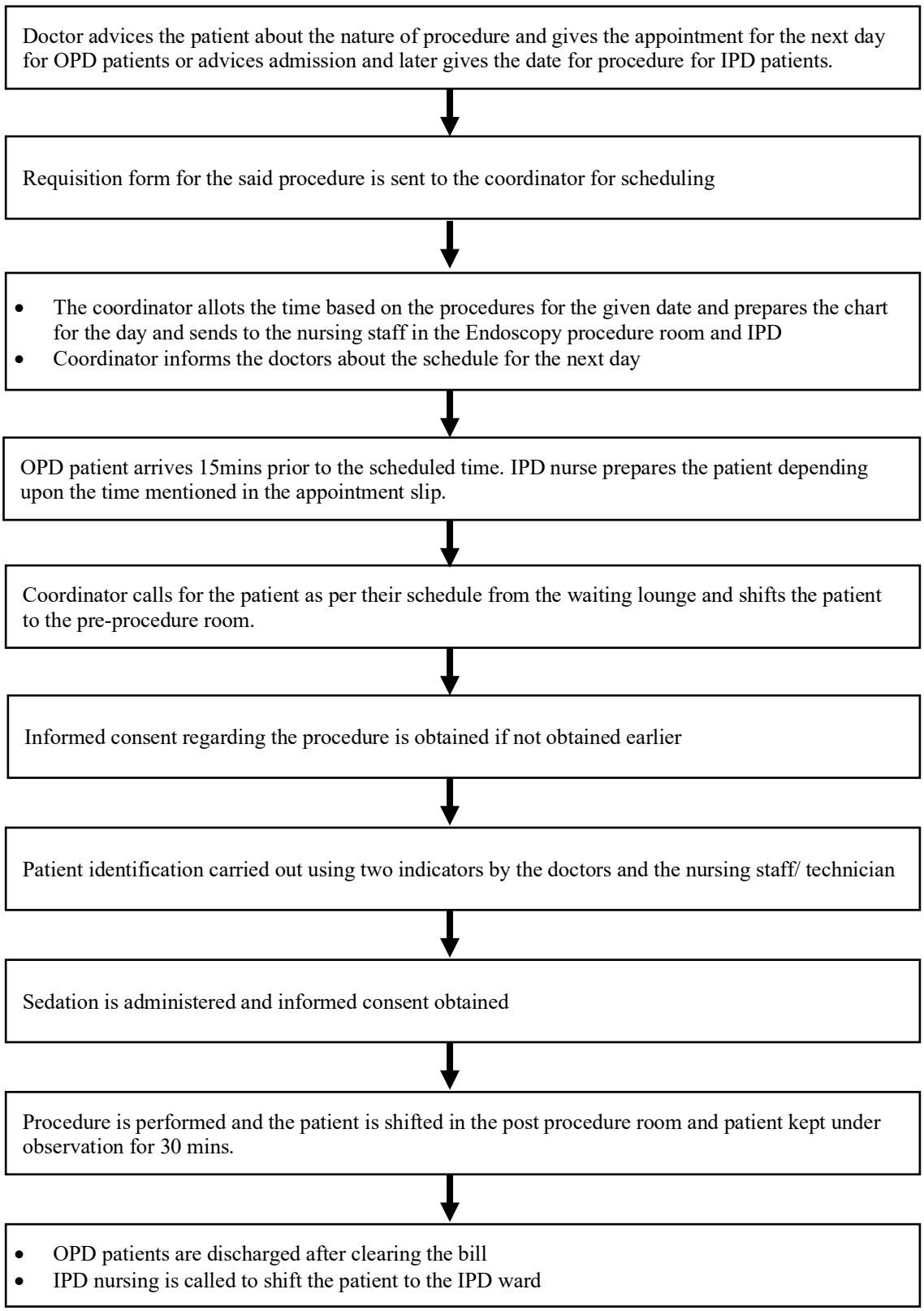
Process Flow in Endoscopy Department

Figure 13



Flow of Activities in Endoscopy Department

Figure 14



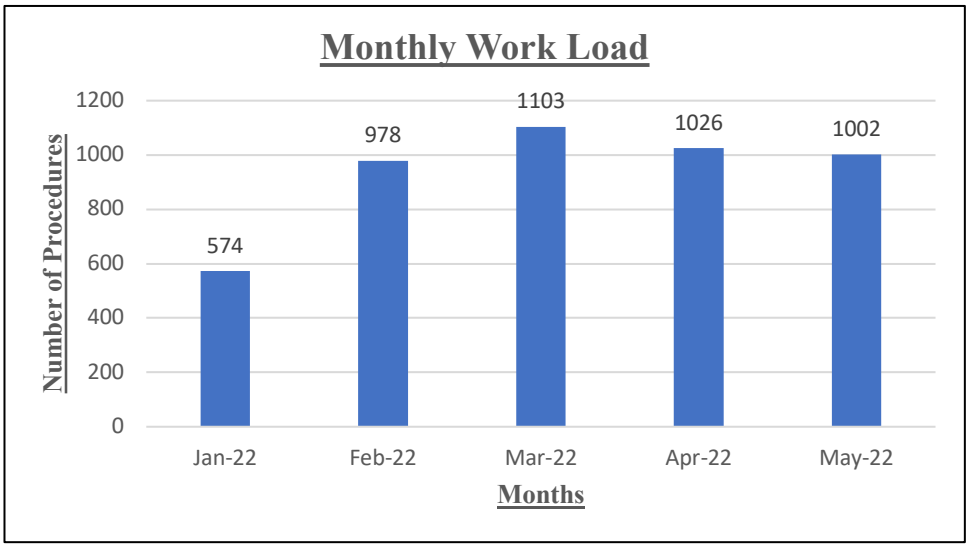
Endoscopy Department Work Load

Monthly Work Load. The table and graph below shows the total number of procedures performed during this year. There has been a steady increase in the number of procedures performed over the months. From Jan till Mar 22 there has been an increase of 48% in the number of procedures performed. However, there has been a decline of 9% in the number of procedures form Mar till May 22. An overall increase of 43% from Jan till May 22.

Table 2

Month	Total No of Procedures
Jan 22	574
Feb 22	978
Mar 22	1103
Apr 22	1026
May 22	1002

Graph 1

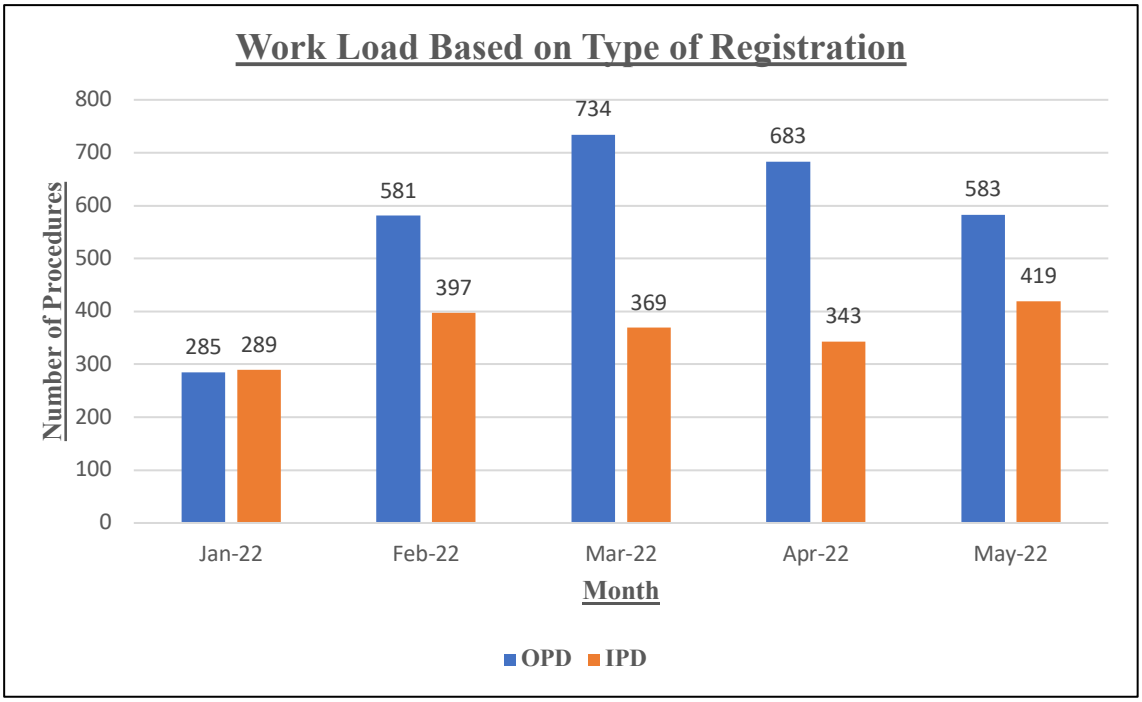


Breakup of Procedures Based on the Type of Registration. The table below shows the number of procedures based on the type of registration. The graph below highlights the comparison in the number of OPD and IPD procedures performed over the months. In Jan the IPD cases almost same as the OPD cases, however, over the months this trend has changed and now the OPD cases for the month of May are 58% of the total cases and greater than the IPD.

Table 3

Month	Type of Registration	
	OPD	IPD
Jan 22	285	289
Feb 22	581	397
Mar 22	734	369
Apr 22	683	343
May 22	583	419

Graph 2

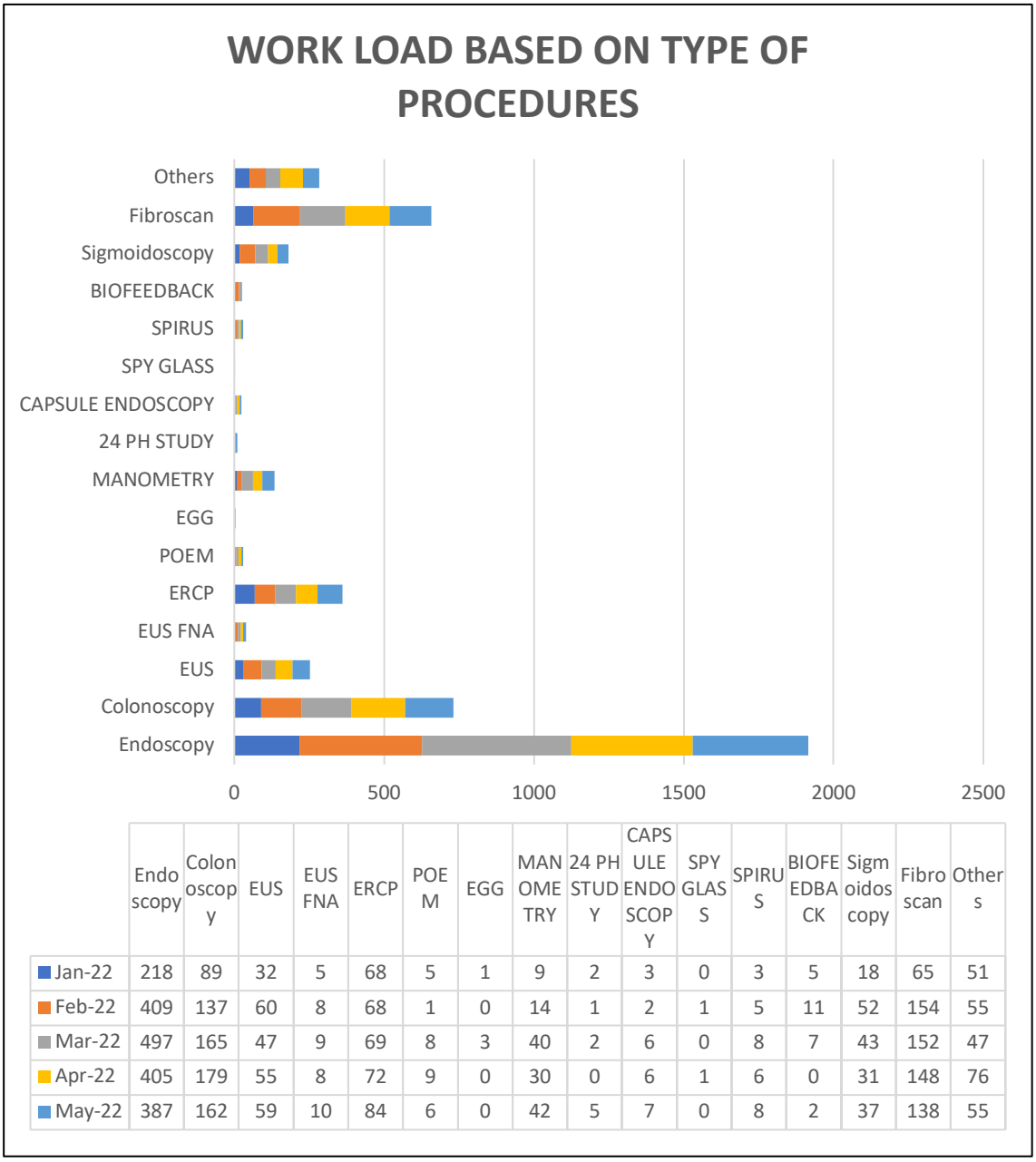


Breakup of Cases Based on the Type of Procedures. The table below shows the number of cases based on the type of procedures. The graphs depict the various types of procedures performed during the month for both IPD and OPD.

Table 4

Procedures	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Total
ENDOSCOPY	218	409	497	405	387	**1916**
COLONOSCOPY	89	137	165	179	162	**732**
EUS	32	60	47	55	59	**253**
EUS FNA	05	08	09	08	10	**40**
ERCP	68	68	69	72	84	**361**
POEM	05	01	08	09	06	**29**
EGG	01	00	03	00	00	**04**
MANOMETRY	09	14	40	30	42	**135**
24 PH STUDY	02	01	02	00	05	**10**
CAPSULE ENDOSCOPY	03	02	06	06	07	**24**
SPY GLASS	00	01	00	01	00	**02**
SPIRUS	03	05	08	06	08	**30**
BIOFEEDBACK	05	11	07	00	02	**25**
SIGMOIDOSCOPY	18	52	43	31	37	**181**
FIBROSCAN	65	154	152	148	138	**657**
OTHERS	51	55	47	76	55	**284**
Total	**574**	**978**	**1103**	**1026**	**1002**	**4683**

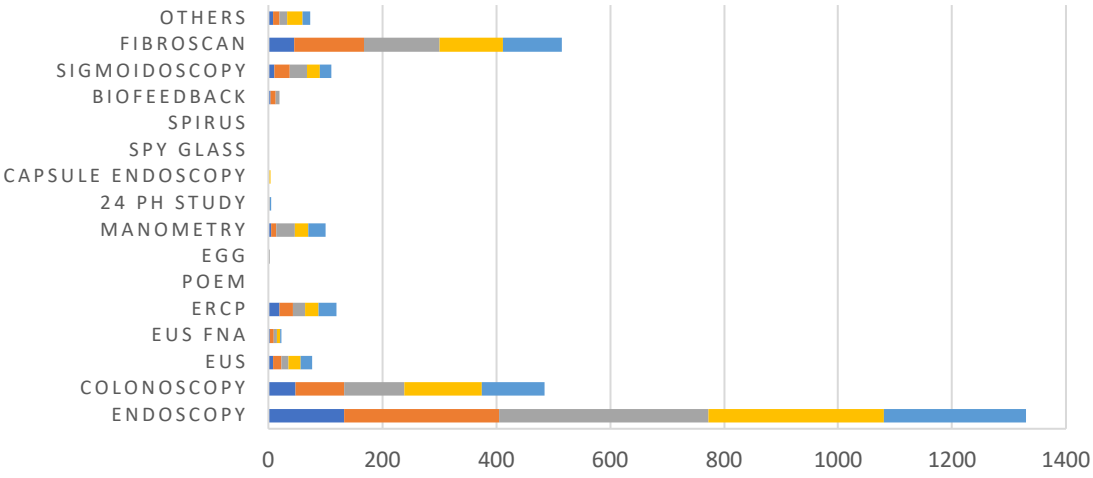
Graph 3



	Endoscopy	Colonoscopy	EUS	EUS FNA	ERCP	POEM	EGG	MANOMETRY	24 PH STUDY	CAPSULE ENDOSCOPY	SPY GLASS	SPIRUS	BIOFEEDBACK	Sigmoidoscopy	Fibroscan	Others
Jan-22	218	89	32	5	68	5	1	9	2	3	0	3	5	18	65	51
Feb-22	409	137	60	8	68	1	0	14	1	2	1	5	11	52	154	55
Mar-22	497	165	47	9	69	8	3	40	2	6	0	8	7	43	152	47
Apr-22	405	179	55	8	72	9	0	30	0	6	1	6	0	31	148	76
May-22	387	162	59	10	84	6	0	42	5	7	0	8	2	37	138	55

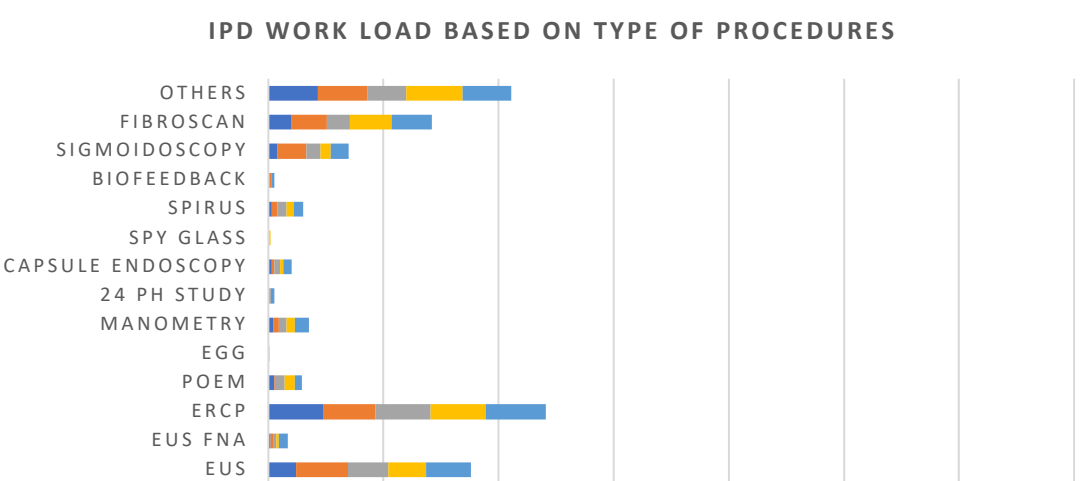
These table and graphs depicts an increase in the number of Endoscopy procedures amongst all the major procedures performed in the Endoscopy department. Followed by Colonoscopy, Fibroscan and ERCP. The least performed procedure is the Spy Glass.

Graph 4



	Endoscopy	Colonoscopy	EUS	EUS FNA	ERCP	POEM	EGG	MANOMETRY	24 PH STUDY	CAPSULE ENDOSCOPY	SPY GLASS	SPIRUS	BIOFEEDBACK	Sigmoidoscopy	Fibroscan	Others
Jan-22	133	48	8	3	20	0	0	5	1	0	0	0	4	10	45	8
Feb-22	272	85	15	6	23	0	0	9	0	0	0	0	9	27	123	12
Mar-22	367	106	12	6	21	0	3	33	2	1	0	0	7	31	132	13
Apr-22	308	136	22	6	24	0	0	23	0	3	0	0	0	22	112	27
May-22	250	110	20	2	32	0	0	30	2	0	0	0	0	21	103	13

Graph 5



	Endoscopy	Colonoscopy	EUS	EUS FNA	ERCP	POEM	EGG	MANOMETRY	24 PH STUDY	CAPSULE ENDOSCOPY	SPY GLASS	SPIRUS	BIOFEEDBACK	Sigmoidoscopy	Fibroscan	Others
Jan-22	85	41	24	2	48	5	1	4	1	3	0	3	1	8	20	43
Feb-22	137	52	45	2	45	1	0	5	1	2	1	5	2	25	31	43
Mar-22	130	59	35	3	48	8	0	7	0	5	0	8	0	12	20	34
Apr-22	97	43	33	2	48	9	0	7	0	3	1	6	0	9	36	49
May-22	137	52	39	8	52	6	0	12	3	7	0	8	2	16	35	42

Assessment Component

JCI – International Patient Safety Goals (IPSG)

There are 06 Goals, 13 Standards and 39 Measurable Elements in this chapter, which describes the important elements to be taken care off before performing any procedure/ surgery.

The International Patient Safety Goals are intended to promote particular patient safety improvements. The goals are to identify problematic areas of health care and to develop evidence- and expert-based consensus solutions to these problems. Recognizing the importance of sound system design in providing safe, high-quality health care, the goals tend to concentrate on system-wide solutions whenever possible.

The goals follow the same structure as the other standards, including a standard (goal statement), an intent statement, and measurable elements (MEs). The goals are rated as "met," "partially met," or "not met" in the same way that other standards are.

For certain processes, certain standards demand that the hospital have a written policy, procedure, programme, or other written document.

JCI – Anaesthesia and Surgical Care (ASC)

There are 15 Standards and 54 Measurable Elements in this chapter, which describes the important elements to be taken care off before performing any procedure/ surgery.

Surgical anaesthesia, procedural sedation, and surgical interventions are all frequent and difficult procedures in the health-care setting. They require a comprehensive patient assessment, integrated care planning, continuing patient monitoring, and criteria-based transfer for ongoing treatment, rehabilitative services, and eventual transfer and discharge.

Patients increasingly lose reflexes to protect their airway, such as coughing and gagging, as anaesthesia and procedural sedation progress from limited sedation to full anaesthesia. Because individual patient responses may vary along that spectrum, anaesthesia and procedural sedation should be coordinated. This chapter discusses anaesthesia and procedural sedation in which the patient's defensive reflexes, which are necessary for maintaining a patent airway and ventilatory function, are jeopardised.

The requirements for anaesthesia and surgery apply in any situation where anaesthesia and/or procedural sedation are employed, as well as surgical and other invasive procedures that require permission. Examples of such settings include hospital operating rooms, day surgery or day hospital units, endoscopy, interventional radiology, dental and other outpatient clinics, emergency services, intensive care units, and other sites.

Informed Consent

Informed consent is a process in which the physician gives the patient or the patient's attendants enough information to make an informed decision about the treatment plan, including medications or procedures.

Purpose

- In circumstances where informed permission is required, the institution obtains informed consent from the patient or family.
- The informed consent process follows all legal requirements.
- Informed consent comprises information in a language they can comprehend about the procedure, its risks, benefits, and alternatives, as well as who will execute the procedure.
- The organisation defines and executes who can grant consent when a patient is unable to make independent decisions.
- The person administering the procedure obtains informed consent.

Definitions

Informed Consent. When a patient has been given enough information to understand the nature of his or her condition, the nature and purpose of the treatment plan, the anticipated and unanticipated threats and possible repercussions of the procedure or treatment, the reasonable alternative procedure or treatment, the outcome if the procedure is not performed or any treatment is given; or if the patient refuses such a procedure or treatment, the consent is said to be "informed."

General Consent. When the procedure or treatment's nature and potential risks are of such a common and ordinary character that the patient understands and is aware of them.

This comprises the patient's visit to the ED, all regular diagnostic tests and procedures, such as diagnostic X-Rays, the administration and/or injection of pharmaceutical goods and drugs, and the extraction of blood for lab investigations, among other things.

Implied Consent in a Medical Emergency. Consent in emergencies may be implied if the condition of the patient precludes his/her ability to make a decision regarding treatment or procedures. A medical emergency is one in which a delay in gaining consent could reasonably be expected to risk the patient's life or considerably increase the risk to the patient's health.

The Patient's Rights

- Patients must be given information in a clear and understandable manner so that they can fulfill their right to make informed decisions about their care.
- Prior to any examination or treatment, a patient has the option to grant or withhold consent.
- Patients must be able to choose whether or not to consent to treatment, and they must be able to refuse treatment or withdraw consent at any time.
- Informed consent rights for minors and incompetent adults will be invoked through their parents or representatives.
- Next of Kin: Spouse, Son/Daughter/Parents/Brother/Sister
- In the absence of above and in case of emergency situation– the treating doctor and an independent consultant and Medical Administrator will consent in good faith of patient.

Doctor's Responsibility:

- Informed consent is to be explained and taken either by the doctor performing the medical or surgical procedure or another doctor from his team who has the requisite qualifications, knowledge of the procedure, its associated risks & benefits. It should be duly signed with name.
- It should always be obtained before the procedure is carried out and be placed in the Medical record file.
- Specifically, the physician must disclose all critical medical facts that the physician considers is relevant to the patient making an informed decision about whether or not to undertake the procedure or treatment in a reasonable way. All of the following should be included in this information:
    - The severity of the patient's illness.
    - The proposed treatment, as well as other treatment options, as well as no treatment.
    - The advantages of the suggested operation, as well as the treatment's frequent and substantial risks/complications and alternatives.
    - Consequences of not receiving treatment.
    - The name(s) of the doctor(s) who will be treating the patient.
    - If applicable, the possibility of using blood or tissue extracted from a patient that isn't needed for further medical care, in education and/or research.
    - The patient or a representative of the patient should be able to ask questions and get further information as needed.
- If preoperative medicine (sedation or pain medication) is to be given, informed consent or confirmation of informed consent must be acquired before the medication is given.

- If the patient refuses to sign the consent, doctor to specify the reason in the medical record.
- Doctor to surely document the risks of not giving the consent by the patient, thus not having the procedure done in the medical record.
- Certain informed consents are also present in Hindi and other state language. They are to be used if the patient is unable to understand English

Exceptions

The following are some well-known exceptions to informed consent:

1. **Medical Emergency.** In an emergency, when the patient is incapacitated and unable to make an informed decision, and the patient is in a life or health-threatening situation requiring immediate treatment, any delay in treatment would likely result in death, deterioration, or serious permanent impairment, a procedure that would otherwise require informed consent may be performed without obtaining prior informed consent.
2. **Patient's Lack of Capacity to Consent.** The patient's consent is obtained in all circumstances when the patient is capable of giving consent and is of legal age to do so. No one has the authority to give permission on behalf of a competent adult. When a patient is unable to make independent decisions, statutory norms are considered. This includes family members and legal guardians. Next of kin/legal guardian preferences are: spouse, son/daughter, parents/brothers/sister, son/daughter, son/daughter, son/daughter, son/daughter, son/daughter, son/daughter, son/daughter, son/ In life-threatening cases where a patient is incompetent and no next of kin is present, the treating doctor and another clinician can make a decision in the patient's best interests to save the patient's life.

3. **Minor.** If the patient is under the age of eighteen, consent from the minor's parent or legal guardian should be sought and documented in the usual manner.

In the medical record, the precise facts and reasons for the exceptions must be thoroughly documented. Except in exceptional situations, these exclusions should not be made in place of a proper consent process.

Duration of Informed Consent.

- Informed consent may be assumed to have continued force and effect until the patient revokes it, or until circumstances change such that the nature of, or the danger or benefits of, the procedure and/or the alternatives to the procedure to which the patient consented materially changes. If a patient is hospitalized for a specific treatment or procedure, for example, the consent should be valid for the duration of the hospitalisation unless the patient's condition or treatment changes dramatically. In that case, the doctor should get a new informed consent form.
- In most cases, informed consent should be sought and documented no more than seven days before a procedure, surgery, or treatment. The physician should re-obtain and re-document informed consent after this time period has passed.
- **Revocation.** Consent can be revoked in writing or orally by the patient. This should be informed to the patient's doctor and recorded in the medical record. The risks due to revocation are explained to the patient /representative in writing and a sign off is obtained.

Withdrawal of consent by Patient/ Refusal of Treatment by Patient. As long as they have the capacity, patients can change their minds about a decision at any time (orally or in writing). Patients have the right to refuse treatment even if it could result in irreversible

physical harm or death. Within the confines of the law, these circumstances are dealt with. When the implications of such refusal are severe, it is critical that the patient and/or representative are aware of the situation, and that these aspects of care are noted in the medical record. The doctor should document the same in the patient's medical record.

Invasive Procedures Safety

An invasive procedure is one that involves a puncture, an incision or the insertion of foreign material that exposes the patient to more than minimal risk.

Purpose. To provide guidelines for ensuring verification of patient identity, correct procedure, correct site and side and to avoid errors in communication between the team members performing procedure prior to a procedure. It includes patient verification, correct site marking, Sign-in, Time-out and Sign-out.

Definitions

Sign in. The nurse (if available), Doctor or technician must confirm identity, the site & side of procedure, to be carried out and that the patient has consented for the procedure. The name of procedure and site/ side is documented in the Procedure Safety Checklist. The form is annexed for reference.

Time out. Time out is held just prior to incision/spiking involving the entire team involved in the procedure. “TIMEOUT” is a period of time when all members of the procedure team should STOP what they are doing and participate in the positive identification of the patient, the correct procedure, correct side/site.

Sign out. Before the patient leaves, the sign out process is completed in the room where the procedure was performed. The nurse/Technician confirms the Instrument count, sponge count, needle count, labelling of the specimen (as applicable) and any equipment problem identified. No one from the team should leave before or during sign out.

Procedure

Pre-procedure verification process. The patient must be awake and alert during the confirmation of the correct person, procedure, and site. If possible, the patient's nurse should perform a pre-procedure check to guarantee the patient's readiness for the procedure. It shall include the checking of the patient ID band and correct site and side marking with respect to the planned procedure.

Procedure with/without Sedation. Hospital shall adhere to the Checklist for all the invasive procedures to be carried out.

- **Sign-in.** It is part of the Procedure Safety checklist, the anaesthetist, physician and nurse shall review with the patient and team: patient identification, marked site/side and procedure to be performed. It shall be carried out before giving sedation.
- **Time out**. Physician/Surgeon shall carry out time out part of the Procedure Safety checklist before the skin incision is made. It must include the entire team, active communication, and be quickly documented, such as in a checklist, and must include correctly the following:
    - Patient identity.
    - Procedure.
    - Side and site
- **Sign out.** Before the patient leaves, the checklist includes a sign out process that takes place in the area where the surgery was performed. A member of the team vocally confirms the following elements of the sign out:

- The name of the invasive procedure that was videotaped or written down.
- Instrumentation, sponge, and needle counts are all completed (as applicable).
- The specimens should be labelled as needed (when the specimens are present during the sign out process, labels are read aloud, including the patient name)
- Any issues with the equipment must be resolved (as applicable)

The Procedure Safety Check List – Non OT, shall be filed in patient's medical record. (Copy of the check list is attached as Appendix 'B')

Endoscopy Waiting Time

The time between when the patient's appointment was announced and when he was taken into the procedure room is known as wait time. Waiting periods at hospital outpatient clinics have an impact on patient satisfaction, access to care, clinical outcomes, trust, intention to return, and hospital income.

The duration of time a patient waits to be seen is one factor that determines healthcare utilisation. Patients view long wait times as a deterrent to receiving care, and keeping them waiting unnecessarily can be upsetting for both the patient and the doctor.

Patients wait for physicians and other allied health professionals to give services in clinics for long periods of time. How satisfied health clients are with their service is directly proportional to the quality of their waiting experience. Clinic wait times must be effectively handled by healthcare organisations that want to deliver excellent care. If consumer-driven features are not incorporated into the wait experience design, patient and provider discontent may follow.

Wait times in patient clinics are an important indicator of a hospital's service quality. Patients will judge health experts depending on how long they have been waiting, much more than knowledge and expertise.

Long wait times for procedures in the endoscopy department are the most essential element to consider for both OPD and IPD patients, as it causes unhappiness among patients, family, and medical staff in the department.

With time management and scheduling, following can be achieved:-

- Optimal availability of endoscopy resources for appropriate cases.
- Ensuring that concerned patient receives endoscopic treatment promptly, as per the given national guidelines and standards.
- Better value for money both for the patients and medical staff.

RESULTS

Compliance to JCI Measurable Elements on Operational Quality in Endoscopy

Scoring Guidelines. A standard's measurable elements (MEs) are graded as "fully met," "partially met," "not met," or "not applicable." If the answer to the ME's specified requirements is "yes" or "always," and 90 percent or more of the observations or records (for example, 9 out of 10) are met, the ME is graded "fully met." If the answer to the ME's specific requirements is "usually" or "sometimes," and 50 percent to 89 percent (for example, 5 through 8 out of 10) of records or observations establish compliance, the ME is evaluated "partially met." If the answer to the ME's particular requirements is "rarely" or "never," and 49 percent or less (for example, 4 or fewer out of 10) recordings or observations establish compliance, the ME is graded "not met."

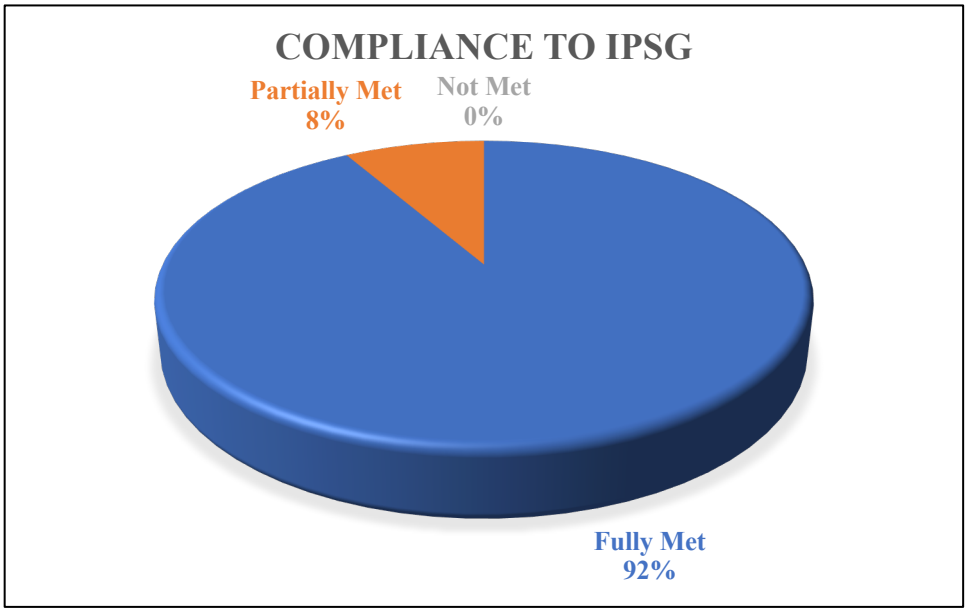
International Patient Safety Goals (IPSG) Check List. The International Patient Safety Goals (IPSGs) aim to improve patient safety in various ways. The objectives emphasise issues in health care and describe evidence- and expert-based consensual solutions to patient safety issues. Recognizing the importance of solid system design in delivering safe, high-quality health care, the goals tend to focus on systemwide solutions whenever possible.

The analysis for the findings on compliance of IPSG (refer **Appendix 'C')** in the department of Endoscopy is as given in the table below:

Table 5

Standards obtained for compliance – Fully Met score(10)	**Standards obtained for compliance – Partially Met score(5)**	**Standards obtained for compliance – Not Met score(0)**
33	06	00
Total score = 330	Total score = 30	Total score = 00
• Maximum score obtained out of the total score of 390 = 360 • Percentage of compliance achieved = 360/390 * 100 = 92.30% • Average score achieved = 9.23		

Pie Chart 1



The Endoscopy department demonstrates acceptable (acceptable average score being 9.23) compliance with the standards based on the above mentioned ME in IPSG chapter. However, the ME which were “Partially Met” has been noted for future compliance, so that they are “Fully Met”.

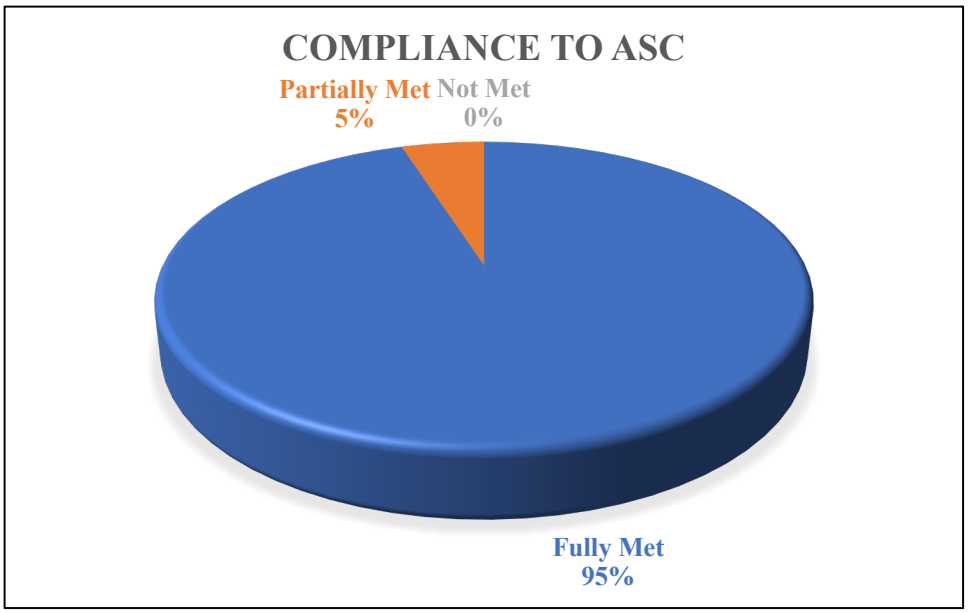
Anesthesia and Surgical Care (ASC) Check List. In a hospital, surgical anaesthesia, procedural sedation, and surgical interventions are all common and complicated procedures. They necessitate detailed patient assessments, care planning, and patient monitoring. The use of sedation and anaesthesia, as well as surgical care, are discussed in this chapter. Procedures for preparing, monitoring, and planning aftercare for patients who have undergone sedation or anaesthesia and/or surgery are covered.

The analysis for the above findings on compliance of ASC in the department of Endoscopy is as given in the table below:

Table 6

Standards obtained for compliance – Fully Met score(10)	**Standards obtained for compliance – Partially Met score(5)**	**Standards obtained for compliance – Not Met score(0)**
29	03	00
Total score = 290	Total score = 15	Total score = 00
• Maximum score obtained out of the total score of 320 = 305 • Percentage of compliance achieved = 305/320 * 100 = 95.31% • Average score achieved = 9.53		

Pie Chart 2



The Endoscopy department demonstrates acceptable (acceptable average score being 9.53) compliance with the standards based on the above mentioned ME in ASC chapter. However, the ME which were “Partially Met” has been noted for future compliance, so that they are “Fully Met”.

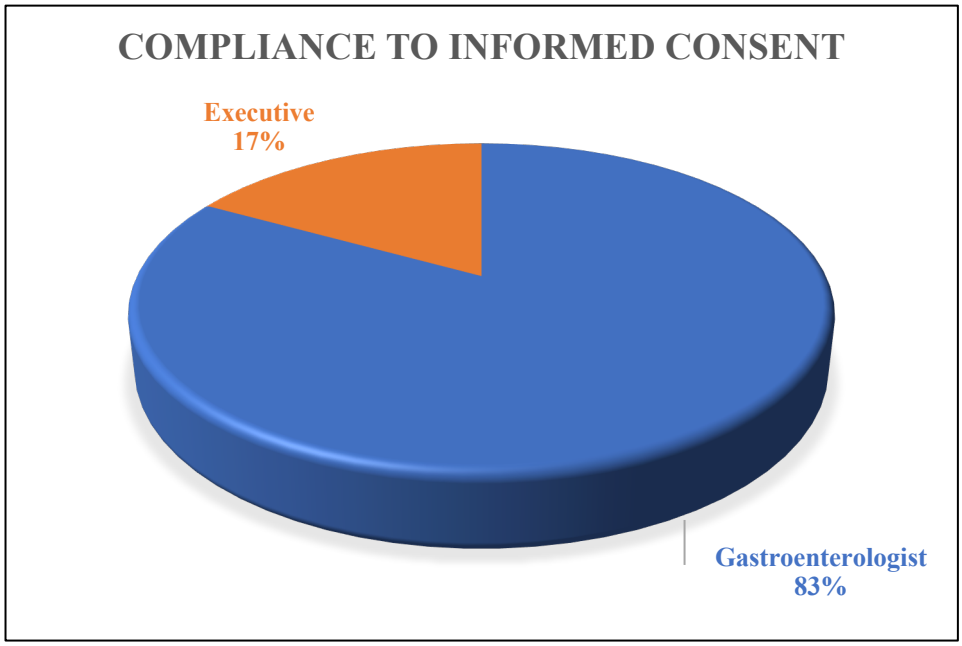
Compliance to Informed Consent

On the day of the appointment of the procedure to be undertaken, the Gastroenterologist gives the patient or the patient's attendants with sufficient information to make an informed decision about the recommended treatment, including medications or procedures. Patients are given the information, in a manner and language that they comprehend, allowing them to exercise their freedom to make informed decisions regarding their health care.

The 260 samples that were studied, their informed consent form (bilingual form) was signed either by the patient or Next of Kin. There is a policy in the department, were in

the Endoscopy Coordinator takes a follow up with the patient after they have been discharged from the procedure room. During this follow up the coordinator, reconfirms that during the informed consent, the procedural benefits and risks, and were explained to him/ her by the gastroenterologist in the waiting room before the commencement of the procedure.

Pie Chart 3



Of the 260 sample cases, 216 patients (83%) had confirmed that the procedural benefits and risks were explained to them while obtaining the informed consent form by the Gastroenterologist before the commencement of the procedure. However, 44 patients (17%) had responded that the informed consent was explained by the Procedure Room Executive while obtaining their signature.

Waiting Time Estimation

Ten cases data per day as samples were randomly collected for 26 days(excluding Sundays) to obtain the average waiting time that a patient experiences before an endoscopy procedure is performed on him.

A table depicting data for one day is given in the table below, followed by the waiting time data sheet for the entire 260 case reports.

Table 7

Sample	Time of Appointment (a)	Entry in Pre-procedure Room (b)	Entry in Procedure Room ©	Waiting Time in Waiting Area (b-a)	Waiting Time in Pre-procedure Room (c-b)	Total Wait Time (Mins)
1	09:30:00 AM	09:50:00 AM	10:00:00 AM	0:20:00	0:10:00	30
2	08:45:00 AM	09:00:00 AM	10:05:00 AM	0:15:00	1:05:00	80
3	04:30:00 PM	04:40:00 PM	05:00:00 PM	0:10:00	0:20:00	30
4	02:45:00 PM	02:55:00 PM	03:10:00 PM	0:10:00	0:15:00	25
5	11:45:00 AM	12:15:00 PM	12:25:00 PM	0:30:00	0:10:00	40
6	09:45:00 AM	10:10:00 AM	10:30:00 AM	0:25:00	0:20:00	45
7	09:10:00 AM	09:25:00 AM	09:55:00 AM	0:15:00	0:30:00	45
8	11:20:00 AM	11:30:00 AM	12:30:00 PM	0:10:00	1:00:00	70
9	10:00:00 AM	10:45:00 AM	12:45:00 PM	0:45:00	2:00:00	165
10	10:30:00 AM	11:10:00 AM	11:30:00 AM	0:40:00	0:20:00	60

Descriptive statistics

Table 8

Total Wait Time (Mins)	
Mean	87.44230769
Standard Error	2.455194377
Median	85
Mode	80
Standard Deviation	39.58881977
Sample Variance	1567.274651
Kurtosis	0.3185062
Skewness	0.741868481
Range	205
Minimum	20
Maximum	225
Sum	22735
Count	260
Largest(1)	225
Smallest(1)	20
Confidence Level(95.0%)	4.834684201

Table 9

Time in Pre-Procedure Room (Mins)	
Mean	45.53846154
Standard Error	1.666528822
Median	40
Mode	30
Standard Deviation	26.87196982
Sample Variance	722.1027621
Kurtosis	1.186546826
Skewness	1.124428467
Range	150
Minimum	5
Maximum	155
Sum	11840
Count	260
Largest(1)	155
Smallest(1)	5
Confidence Level(95.0%)	3.281671156

Table 10

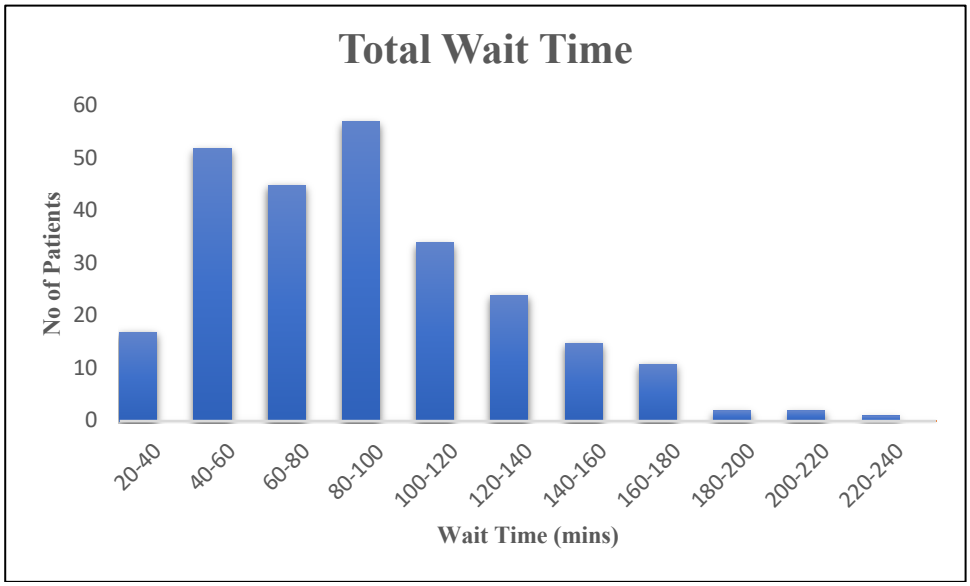
Time in Waiting Area (Mins)	
Mean	41.90384615
Standard Error	1.746618763
Median	35
Mode	15
Standard Deviation	28.16338131
Sample Variance	793.1760469
Kurtosis	2.16600793
Skewness	1.437597687
Range	140
Minimum	10
Maximum	150
Sum	10895
Count	260
Largest(1)	150
Smallest(1)	10
Confidence Level(95.0%)	3.439381508

Pivot Table (Frequency Table)
Table 11

Total Waiting Time (Mins)	**No of Patients**
20-40	17
40-60	52
60-80	45
80-100	57
100-120	34
120-140	24
140-160	15
160-180	11
180-200	2
200-220	2
220-240	1
Grand Total	**260**

The average waiting time for a patient for undergoing Endoscopy procedure is 87 mins (01hrs 27 mins).

Graph 6



The graph above shows that the maximum patients (57) waiting time is between 80-100 mins and only 01 patient had to wait for 220-240 mins, out of the total sample size of 260 patients.

Table 12

t-Test: Two-Sample Assuming Equal Variances		
	Time in Waiting Area (Mins)	***Time in Pre-Procedure Room (Mins)***
Mean	41.90384615	45.53846154
Variance	793.1760469	722.1027621
Observations	260	260
Pooled Variance	757.6394045	
Hypothesized Mean Difference	0	
df	518	
t Stat	-1.505562745	
P(T<=t) one-tail	0.066394487	
t Critical one-tail	1.647800566	
P(T<=t) two-tail	0.132788973	
t Critical two-tail	1.964554196	

The values of t-test statistics is -1.50, the degree of freedom (df) is 518 and the **p-value is 0.132**. Since p-value is more than our chosen significance level $\alpha = 0.05$, we can conclude that the mean time in the waiting area and in the pre-procedure room for patients is not significantly different, as they are equal.

DISCUSSION

This study has shown that, in the CGHE department, the compliance to JCI standards with regards to IPSG and ASC has been achieved to the desired acceptable levels. The department demonstrated acceptable average score of 9.23, which is in compliance with the standards based on the mentioned ME in IPSG. The department also demonstrated acceptable average score of 9.53, which is in compliance with the standards based on the mentioned ME in ASC.

During the analysis of the informed consent, 83 % of patients (216 out of 260) had confirmed that the procedural benefits and risks were explained to them while obtaining the informed consent form by the Gastroenterologist before the commencement of the procedure. However, 17% of patients (44 out of 260) had responded that the informed consent was explained by the Procedure Room Executive while obtaining their signature. This figure of 44 patients, where in the Gastroenterologist was not present while obtaining their signature on the informed consent form, is partly due to the time constraint imposed by a busy endoscopy procedure list in the department, and also be due to the busy OPD schedule of the department.

During the analysis of the waiting time estimation, the average wait time for a patient to undergo an endoscopy procedure is 1 hour 27 minutes (87minutes), which is quite satisfactory considering the availability of only 5 procedure rooms wherein both the units of Endoscopy department have to perform on sharing basis. Out of these 5 rooms; 1 room is dedicated for fibroscan and manometry, 1 room for ERCP and 3 rooms for balance of the procedures in the department. The room which is equipped to perform ERCP

procedure, alone can take around 3-4 hours depending on the nature of the case, thereby increasing the waiting time. Similarly, availability of only 1 duty anaesthetist, causes the delay in performing the procedures. There are also no separate days for OPD and these non OT procedures, which causes delay in the availability of the gastroenterologist for the procedures.

Strength of the Study. The CGHE department became operational on 01 Feb 2021, as Unit 1 of the Endoscopy department. Since then, no study has been conducted to assess the operational efficiency of this department. Having conducted this study, it would help the department to improve the operational quality, performance and standardisation; with regards to compliance JCI standards, streamline and reduce the waiting time for patients undergoing endoscopy, and also help to streamline the procedure of obtaining the informed consent by the gastroenterologist.

Limitations

With respect to compliance to JCI standards, only IPSG and ASC chapters were considered in the course of this study. However, other standards should also be studied and analysis with respect to complete compliance to JCI standards.

Since the hospital is due for renewal of its JCI accreditation in Dec 2022, the internal audits and checks are being carried out in the hospital to meet the accreditation standards. Hence the JCI compliance for IPSG and ASC that has been achieved may not be accurate. Therefore, had the study been carried out after 1 year from the date of award of accreditation, the compliance of ME could have been better achieved and analysed.

The average waiting time estimation has been done for the complete day of the operations of the department. Had it been done separately for morning and afternoon; a more meaningful analysis could have been carried out and accordingly results could have been drawn to reduce the waiting time.

CONCLUSION

Almost everywhere, there are opportunities to improve efficiency. It includes opportunities in the initial design of the facility, scheduling of the procedures and the staff duties, and a variety of process related issues when it comes to the delivery of care, such as the endoscopist's and assistants intraprocedural activities, purchasing, use, and reprocessing of the equipment, and the billing processes.

The expansion of GI endoscopy as a specialist and a business has necessitated specialisation in facility design and administration, as well as a great deal of interest in ways to improve efficiency. Improving efficiency requires an understanding of processes and awareness of present performance. Adequate information and data, which can only be provided by hospital management information system and the medical record, considerably facilitates performance tracking and development. Most aspects of care in the endoscopy department, provide adequate ground for improvement and effectiveness when the tools and initiative are available. As a result, recognising chances for growth requires more targeted and detailed assessments.

Recommendations

Since the JCI accreditation for the hospital is due for renewal in the month of Dec, it is recommended that, the ME of JCI standards as applicable to the Endoscopy department, need to be evaluated next year after the JCI accreditation is complete, in order to draw out the correct analysis with regards to the compliance score achieved.

The way the informed consent process is handled can have a direct impact on the efficiency of the endoscopy unit. Consent can be gained from a variety of licenced participants, although in most cases, the gastroenterologist is required. Prior to the

patient's admission in the endoscopy unit, consent should ideally be acquired. Unfortunately, in most busy open-access practises, this method is not practicable. Hence, it is recommended that a gastroenterologist be detailed as per the time schedule and mandated to brief the patients in the waiting area, before proceeding for the procedure, with regards to the procedural briefing as per the informed consent form. Therefore, allowing the patient to understand the nature, and the reason for the proposed procedure, so that the patient gets adequate time to comprehend and clear his or her doubts.

Another important factor that impacts the use of healthcare services is the amount of time a patient waits before the procedure begins. Long waiting times are considered by patients as a hindrance to receiving care, and can be stressful for both the patient and the doctor. It is recommended, to develop a time schedule for all the major procedures, by forming time slots for various procedures and earmarking rooms for a set of procedures, which would allow both the endoscopy units to perform their respective procedures based on the time schedule.

Appendix 'A'

Department of Gastroenterology, Hepatology & Endoscopy
List of Procedures

Patient's Name:……

MAX ID: ……

1	24hr Oesophagal pH metry	31	Endoscopy Intra-Operative
2	Anorectal Manometry	32	Enteroscopy
3	Anti Reflux Mucosal Ablation / ARMA	33	ERCP + Percutaneous Transhepatic Cholangiography
4	Biofeedback	34	ERCP Biliary stent Placement
5	Colonic transit study	35	ERCP Brushing and Biopsy
6	Colonoscopic Decompression of Colon	36	ERCP CBD Stone extraction(Complex)
7	Colonoscopy Argon Plasma coagulation	37	ERCP CBD Stone removal
8	Colonoscopy Dilatation	38	ERCP Diagnostic
9	Colonoscopy Endo therapy for Bleeding	39	ERCP EPT+Stone Extraction+Stent Placement
10	Colonoscopy Full (Cecum) Diagnostic	40	ERCP LTP Primary Stent Placement
11	Colonoscopy full (Cecum) Diagnostic (Complex)	41	ERCP Mechanical lithotripsy
12	Colonoscopy Full (Cecum) Diagnostic-Painless	42	ERCP Metal stent placement
13	Colonoscopy full (Cecum) Therapeutic (Complex)	43	ERCP Minor Papilla sphincterotomy
14	Colonoscopy Limited Diagnostic	44	ERCP Nasobiliary drainage
15	Colonoscopy Long with Biopsy	45	ERCP Pancreatic Stent
16	Colonoscopy Metal Stent Placement	46	ERCP Pancreatic Stone extraction
17	Colonoscopy Pediatric	47	ERCP Papillotomy
18	Colonoscopy Polypectomy	48	ERCP Papillotomy+Stone Extraction
19	Colonoscopy Polypectomy (>5 Polyps)	49	ERCP Pseudocyst Drainage
20	Colonoscopy Polypectomy-Painless	50	ERCP Stent Exchange
21	Colonoscopy+ Dilatation	51	ERCP Stent removal
22	Direct endoscopic necrosectomy / DEN	52	ERCP Stricture dilatation
23	Electrogastrography /EGG	53	Esophageal Manometry
24	Endobariatic /ESG	54	EUS Coiling & Glue / Thrombin of Fundal Varix
25	Endoscopic full thickness resection /EFTR	55	EUS Guided Celiac Plexus Block NN
26	Endoscopic mucosal resection /EMR	56	EUS Guided Celiac Plexus Block Old Needle
27	Endoscopic Percutaneous necrosectomy/PEN	57	EUS Guided Choledochoduodenostomy
28	Endoscopic submucosal dissection /ESD	58	EUS guided cystogastostomy- metal stent
29	Endoscopic Ultrasound Diagnostic	59	EUS guided cystogastostomy- Plastic Stent
30	Endoscopy Capsule	60	EUS-FNA

61	EUS-FNA (with NN)	91	Submucosal tunneling endoscopic resection/ STER
62	Fibro scan	92	Submucosal tunneling endoscopic septum-Zenker's diverticulum
63	Gastric peroral endoscopy myotomy / G POEM	93	UGI Endoscopy Achalasia Dilatation
64	Gastroesophageal reflux disease/GERDEX	94	UGI Endoscopy Argon Plasma Coagulation
65	Hepaticogastrostomy	95	UGI Endoscopy Banding of varices / EVL
66	Hydrogen breath test (Fructose/Lactose/Surcose/Sor	96	UGI Endoscopy Banding of varices-Painless
67	Intragastric ballloon placement	97	UGI Endoscopy Diagnostic
68	Liver Biopsy	98	UGI Endoscopy Diagnostic (Complex)
69	Manual evacuation of feces	99	UGI Endoscopy Diagnostic-Painless
70	Naso jejunal tube placement under Fluoroscopy	100	UGI Endoscopy Dilatation of Strcture
71	NJ placement	101	UGI Endoscopy Endo therapy for bleed Injection
72	Paracentesis Diagnostic Abdominal	102	UGI Endoscopy Foreign Body removal
73	Paracentesis Therapeutic	103	UGI Endoscopy Glue Injection of varices
74	PEG Replacement (without endoscopy)	104	UGI Endoscopy H Pyelori test-Painless
75	Per oral endoscopic tumor /POET for tumor	105	UGI Endoscopy H Pylori test
76	Per rectal examination	106	UGI Endoscopy Metal Stent Placement
77	Peroral Endoscopic Myotomy /**POEM**	107	UGI Endoscopy Nasojejunal tube placement
78	Per-rectal endoscopic myotomy / PREM for Hirschsprung	108	UGI Endoscopy PEG Placement
79	POET tumor removal	109	UGI Endoscopy Polypectomy
80	Sengstaken Tube Placement	110	UGI Endoscopy Ryles tube placement
81	Sigmoidoscopy + APC	111	UGI Endoscopy Side viewing scope+/-Stent removal
82	Sigmoidoscopy +Polypectomy	112	UGI Endoscopy Therapeutic (Complex)
83	Sigmoidoscopy Banding of Hemarrhoids	113	UGI Endoscopy Varices Sclerotherapy
84	Sigmoidoscopy Diagnostic	114	UGI Endoscopy with Biopsy
85	Sigmoidoscopy Diagnostic-Painless	115	UGIE with NBI
86	Sigmoidoscopy with Biopsy		
87	Small Bowel Enteroscopy Diagnostic (Single balloon)		
88	Spiral enteroscopy		
89	Spy Glass Guided		
90	Spy glass + EHL		

Appendix 'B'

Procedure Safety Checklist - Non OT

Name:		**Age:**	Patient Label/ Addressograph
Consultant Name:			
Procedure Name:		**Date:**	

	Checklist	
Sign-In Procedure	**Correct** Patient Identification (using 2 identifiers) **with involvement of patient**	
	Correct Procedure Name(specify full name of procedure)	
	Check availability of relevant documents/ diagnostics/ investigation reports on the screen/ view box	Yes □ NA □
	Correct Procedure site and side (left/ right) – ensured wherever applicable	Yes □ NA □
	Indication of the procedure *(Please specify)*	
	Ensure the presence of correct equipment and supplies	Yes □ No □ NA □
	Implantable medical device(s) are on hand, correct, and functional (mention implant detail in procedure note)	Yes □ NA □
	Require blood product and special medical equipment are present (wherever applicable)	Yes □ NA □
	Informed Consent complete **(consent has to be completed before initiation of the procedure)**	Yes □ NA □
Time Out (Before initiation of the procedure)	Team Introduction and **active participation of the entire team**	Yes □
	Correct Patient Identification (using 2 identifiers)	Yes □
	Correct Procedure Name(specify full name of procedure)	
	Correct Procedure site and side (left/ right) – ensured wherever applicable. **Correct** site mark visualized wherever applicable.	Yes □ NA □
	Time of completion of Time Out	
Sign Out (End of Procedure)	Labeling of Specimens/ Samples, **labels are read aloud- (using two identifiers) and verified**	Yes □ NA □
	Post procedure confirmation	Yes □
	Verbally confirmation done by member of the team (name of the surgical/invasive procedure	Yes □ NA □
	Completion of instrument, sponge and needle counts (as applicable)	Yes □ NA □
	Any equipment problem to be addressed (as applicable)	Yes □ NA □
	Time of sign out	
	Concerns (If Any)	

Doctor	Nurse	Technician
Name:	Name:	Name :
Designation:	Designation:	Designation :
Signature:	Signature:	Signature :
Date:	Date:	Date :
Time:	Time:	Time :

Appendix 'C'

International Patient Safety Goals (IPSG) Check List

S No	Standards	Measurable Elements	Compliance			Remarks
			Fully Met	Partially Met	Not Met	
1	**IPSG 1**					
	The hospital develops and implements a process to improve accuracy of patient identifications					
		1. At least two patient identifiers, that do not include the use of the patient's room number or location in the hospital, are used to identify the patient and to label elements associated with the patient's care and treatment plan	**10**			
		2. Patients are identified before performing diagnostic procedures, providing treatments, and performing other procedures	**10**			
		3. The hospital ensures the correct identification of patients in special circumstances, such as the comatose patient or new born who is not immediately named……	**10**			
2	**IPSG 2**					
	The hospital develops and implements a process to improve the effectiveness of verbal and/or					

	telephone communication among caregivers					
		1. Complete verbal orders are documented and read back by the receiver and confirmed by the individual giving the order		**5**		
		2. Complete telephone orders are documented and read back by the receiver and confirmed by the individual giving the order		**5**		
		3. Complete test results are documented and read back by the receiver and confirmed by the individual giving the result.	**10**			
3	**IPSG 2.1**					
	The hospital develops and implements a process for reporting critical results of diagnostic tests					
		1. The hospital defines critical results that may represent urgent or emergent life-threatening values for diagnostic tests	**10**			
		2. The hospital develops a formal reporting process, used throughout the hospital, that identifies how critical results of diagnostic tests are reported/communicated to health care practitioners	**10**			
		3. The hospital identifies what information is documented in the medical record	**10**			

4	**IPSG 2.2**					
	The hospital develops and implements a process for handover communication					
		1. Standardized critical content is communicated between health care practitioners during handovers of patient care	**10**			
		2. Standardized forms, tools, or methods that support a consistent and complete handover process are utilized	**10**			
		3. Data from adverse events resulting from handover communications are tracked and used to identify ways in which handovers can be improved, and improvements are implemented		**5**		
5	**IPSG 3**					
	The hospital develops and implements a process to improve the safety of high-alert medications					
		1. The hospital identifies in writing its list of high-alert medications	**10**			
		2. The hospital develops and implements a process for reducing the risk and harm of high-alert medications that is uniform throughout the hospital	**10**			

		3. The hospital annually reviews and, as necessary, revises its list of high-alert medications	**10**			
6	**IPSG 3.1**					
	The hospital develops and implements a process to improve the safety of look-alike/sound-alike medications					
		1. The hospital identifies in writing its list of look-alike/sound-alike medications	**10**			
		2. The hospital develops and implements a process for managing look-alike/sound-alike medications that is uniform throughout the hospital	**10**			
		3. The hospital annually reviews and, as necessary, revises its list of look-alike/sound-alike medications	**10**			
7	**IPSG 3.2**					
	The hospital develops and implements a process to manage the safe use of concentrated electrolytes					
		1. Only qualified and trained individuals have access to concentrated electrolytes, and they are clearly labelled with appropriate warnings and	**10**			

		segregated from other medications				
		2. The hospital only stores vials of concentrated electrolytes outside of the pharmacy in situations identified in the intent	**10**			
		3. Standard protocols are followed for adult, pediatric, and/or neonatal electrolyte replacement therapy to treat hypokalemia, hyponatremia, and hypophosphatemia		**5**		
8	**IPSG 4**					
	The hospital develops and implements a process for the preoperative verification and surgical/invasive procedure site marking					
		1. The hospital implements a preoperative verification process through the use of a checklist or other mechanism to document, before the surgical/invasive procedure, that the informed consent is appropriate to the procedure; that the correct patient, correct procedure, and correct site are verified; and that all required documents, blood products, medical equipment, and implantable medical devices are on hand, correct, and functional	**10**			
		2. The hospital uses an instantly recognizable	**10**			

		and unambiguous mark for identifying the surgical/invasive site that is consistent throughout the hospital				
		3. Surgical/invasive site marking is done by the person performing the procedure and involves the patient in the marking process	**10**			
9	**IPSG 4.1**					
	The hospital develops and implements a process for the time-out that is performed immediately prior to the start of the surgical/invasive procedure and the sign-out that is conducted after the procedure					
		1. The full team actively participates in a time-out process, which includes a) through c) in the intent, in the area in which the surgical/invasive procedure will be performed, immediately before starting the procedure. Completion of the time-out is documented and includes date and time	**10**			
		2. Before the patient leaves the area in which the surgical/invasive procedure was performed, a sign-out process is conducted, which includes at least d) through g) in the intent	**10**			

		3. When surgical/invasive procedures are performed, including medical and dental procedures done in settings other than the operating theatre, the hospital uses uniform processes to ensure safe surgery		**5**		
10	**IPSG 5**					
	The hospital adopts and implements evidence-based hand-hygiene guidelines to reduce the risk of health care–associated infections					
		1. The hospital has adopted current evidence-based hand-hygiene guidelines	**10**			
		2. The hospital implements a hand-hygiene program throughout the hospital	**10**			
		3. Hand-washing and hand-disinfection procedures are used in accordance with hand-hygiene guide- lines throughout the hospital	**10**			
11	**IPSG 5.1**					
	Hospital leaders identify care processes that need improvement and adopt and implement evidence-based interventions to improve patient outcomes and reduce the risk of hospital-associated infections					

		1. Hospital leaders identify priority areas for improvement of hospital-acquired infections	**10**			
		2. Hospital leaders identify and implement evidence-based interventions (such as bundles) for all applicable patients	**10**			
		3. Evidence-based interventions (such as bundles) used to reduce the risk of health care–associated infections are evaluated by health care practitioners for compliance and improvement in clinical outcomes		**5**		
12	**IPSG 6**					
	The hospital develops and implements a process to reduce the risk of patient harm resulting from falls for the inpatient population					
		1. The hospital implements a process for assessing all inpatients for fall risk and uses assessment tools/ methods appropriate for the patients being served	**10**			
		2. The hospital implements a process for the reassessment of inpatients who may become at risk for falls due to a change in condition or are already at risk for falls based on the documented assessment	**10**			

		3. Measures and/or interventions to reduce fall risk are implemented for those identified inpatients, situations, and locations within the hospital assessed to be at risk. Patient interventions are documented	**10**			
13	**IPSG 6.1**					
	The hospital develops and implements a process to reduce the risk of patient harm resulting from falls for the outpatient population					
		1. The hospital implements a process for screening outpatients whose condition, diagnosis, situation, or location may put them at risk for falls and uses screening tools/methods appropriate for the patients being served	**10**			
		2. When fall risk is identified from the screening process, measures and/or interventions are implemented to reduce fall risk for those outpatients identified to be at risk, and the screening and interventions are documented	**10**			

		3. Measures and/or interventions to reduce fall risk are implemented in situations and locations in the outpatient department(s) assessed to be a risk for falls	**10**			

Appendix 'D'

Anesthesia and Surgical Care (ASC) Check List

S No	Standards	Measurable Elements	Compliance			Remarks
			Fully Met	Partially Met	Not Met	
Anesthesia Care						
1	**ASC 4**					
	A qualified individual conducts a preanesthesia assessment and preinduction assessment					
		1. A preanesthesia assessment is performed for each patient	**10**			
		2. A separate preinduction assessment is performed to reevaluate patients immediately before the induction of anesthesia	**10**			
		3. The two assessments are performed by an individual(s) qualified to do so and documented in the patient medical record	**10**			
2	**ASC 5**					
	Each patient's anesthesia care and, when applicable, postoperative pain management are planned; and the plan as well as the risks, benefits, and alternatives are discussed with the patient and/or those who make decisions for the					

	patient and documented in the patient's medical record					
		1. The anesthesia care for each patient is planned and documented in the patient's medical record	**10**			
		2. The patient, family, and/or decision makers are educated on the risks, benefits, and alternatives of anesthesia	**10**			
		3. When applicable, the patient, family, and/or decision makers are educated, prior to the procedure being performed, about the options available for postoperative pain management		**5**		
		4. The anesthesia agent, dose (when applicable), and anesthetic technique are documented in the patient's anesthesia record	**10**			
		5. The anesthesiologist and/or nurse anesthetist and anesthesia assistants are identified in the patient's anesthesia record	**10**			
3	**ASC 6**					
	Each patient's physiological status during anesthesia and surgery is monitored according to professional practice guidelines and documented in					

	the patient's medical record					
		1. The frequency and type of monitoring during anesthesia and surgery are based on the patient's preanesthesia status, the anesthesia used, and the surgical procedure performed	**10**			
		2. Monitoring of the patient's physiological status is consistent with professional practice		**5**		
		3. The results of monitoring are documented in the patient's medical record	**10**			
4	**ASC 6.1**					
	Each patient's postanesthesia status is monitored and documented, and the patient is discharged from the recovery area by a qualified individual or by using established criteria					
		1. Patients are monitored during the postanesthesia recovery period	**10**			
		2. Monitoring findings are documented in the patient's medical record	**10**			
		3. Patients are discharged from the postanesthesia unit (or recovery monitoring is discontinued) in accordance with the alternatives described in a) through c) in the intent	**10**			

		4. Time recovery is started and time recovery phase is complete are recorded in the patient's medical record	**10**			
Surgical Care						
5	**ASC 7**					
	Each patient's surgical care is planned and documented based on the results of the assessment					
		1. The responsible physician documents the assessment information used to develop and to support the planned invasive procedure in the patient's medical record before the procedure is performed	**10**			
		2. The surgical care for each patient is planned based on the assessment information	**10**			
		3. A preoperative diagnosis and the planned procedure are documented in the patient's medical record prior to the procedure	**10**			
6	**ASC 7.1**					
	The risks, benefits, and alternatives are discussed with the patient and his or her family or those who make decisions for the patient					
		1. The patient, family, and decision makers are educated on the risks, benefits, potential complications, and	**10**			

		alternatives related to the83laned surgical procedure				
		2. The education includes the need for, risks and benefits of, and alternatives to blood and blood-product use	**10**			
		3. The patient's surgeon or other qualified individual provides and documents the education	**10**			
7	**ASC 7.2**					
	Information about the surgical procedure is documented in the patient's medical record to facilitate continuing care					
		1. Surgical reports, templates, or operative progress notes include at least a) through g) from the intent	**10**			
		2. The hospital identifies information that may routinely be recorded in other specific areas of the medical record	**10**			
		3. The surgical report, template, or operative progress note is available immediately after surgery before the patient is transferred to the next level of care….	**10**			
8	**ASC 7.3**					
	Patient care after surgery is planned and documented					
		1. The postsurgical care provided by medical, nursing, and	**10**			

		others meets the patient's immediate post- surgical needs				
		2. The continuing postsurgical plan(s) is documented in the patient's medical record within 24 hours by the responsible surgeon or verified by a co-signature from the responsible surgeon on the documented plan entered by the surgeon's delegate	**10**			
		3. The continuing postsurgical plan of care includes medical, nursing, and others as needed based on the patient's needs	**10**			
		4. When indicated by a change in the patient's needs, the postsurgical plan of care is updated or revised based on the reassessment of the patient by the health care practitioners	**10**			
9	**ASC 7.4**					
	Surgical care that includes the implanting of a medical device is planned with special consideration of how standard processes and procedures must be modified					
		1. The hospital's surgical services identify the types of implantable medical devices that are included within its scope of services	**10**			
		2. Policies and practices include a) through g) in the intent	**10**			

		3. The hospital has a process for tracing implantable medical devices	**10**			
		4. The hospital develops and implements a process for contacting and following up with patients in a defined time frame after receiving notification of a recall of an implantable medical device		**5**		

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