



Summer Training

At

Ivy Hospital, Mohali

(May 10th, 2021 to July 2nd, 2021)

A Report on

**Compliance of Surgical Safety Checklist in
Operation Theatre**

At

Ivy Hospital, Mohali

By

Dr. Aksharika Sharma

MBA in Hospital and Health Management

2020-2022



Institute of Health Management Research, Jaipur (2020)



Ivy Hospital

Regd. Office Administration Block,
Ivy Hospital, Sector-71, SAS Nagar, Mohali, Pb.
Ph : +91-172-5097131, Fax: 91-172-2274900
CIN No. : U85110PB2005PTC027898

Date: 2nd May 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Aksharika Sharma**, student of MBA (Hospital and Health Management) Batch 2020-22 IIHMR University, Jaipur has successfully completed her internship with Ivy Hospital, Mohali from **10th May 2021 to 2nd July 2021** in the department of Quality and operations.

During this period her assignment was **"Compliance of Surgical Safety Checklist in Operation Theatre"**.

During the period of her internship with us she was committed, sincere and diligent learner.

We wish her all the success to her future endeavours.

Mentor

Dr Mukesh Sharma

Head- Quality Department

Shraddha Sahay

Group Head- HR, Admin & Legal

Authorized Signatory

For Ivy Health & Life Sciences Pvt. Ltd.

Authorized Signatory

ACKNOWLEDGMENT

The summer training internship opportunity with **Ivy Hospital, Mohali** was a great experience for learning , understanding and development proffessionally. Being a management student, it helped me learn my duties as a professional, working in a healthcare setup. It has carved some wonderful memories in my life and assisted me with creating as management professional overall. This period helped me in sharpening my abilities.

Firstly, I thank **Dr. P.R.Sodani** (President, IIHMR university) for giving me this opportunity to undergo training at Ivy Hospital, Mohali. I express my deepest gratitude to my academics mentor, **Dr. Alok Kumar Mathur** for guiding me throughout the project. During my training, he upheld me by giving me scholarly opportunity in my work and furthermore upheld me in getting occupied with groundbreaking thoughts.

I am highly grateful and I like to express my deepest gratitude and special thanks to my organisation mentor, **Dr.Mukesh Sharma** who inspite of being extraordinarily busy with all the work and duties, took time out to guide and keep me focused by giving his helpful advice and encouragement throughout the project .

I choose this moment to acknowledge there contribution gratefully.

It is my genuine pleasure to express my gratitude towards all the staff of Ivy Hospital ,Mohali for their sincere attention towards my work which was exteremely valuable for my study both theoratically and practically. I acknowledge them for taking out time from their feverish timetable for helping me.

Lastly, I thank my family and friends for being always there as a constent source of inspiration for me .

I discover this chance as a colossal advance in my vocation improvement I will attempt to utilize my grained abilities and information in most ideal manner to shape my carrer

DECLARATION

I hereby declare that I am a student of 1st year, MBA in Hospital and Healthcare Management, IIHMR University, Jaipur, Rajasthan session 2020-2022.

I like to state that I have completed my Internship on the topic “**Surgical Safety Checklist**” under the guidance of **Dr. Mukesh Sharma** (Head Quality & Medical Services) Ivy Hospital, Mohali and **Dr. Alok Kumar Mathur (mentor)** IIHMR University, Jaipur, for the partial fulfilment for the degree of MBA in Hospital and Healthcare Management.

This work is done by me and has not been submitted to any of the other Institute or University with the end goal of grant of any degree or certificate.

Sincerely,

Dr. Aksharika Sharma

MBA – HM (2020-22)

TABLE OF CONTENT

<u>S.No.</u>	<u>Content</u>	<u>Page No.</u>
1.	Acknowledgement	2
2.	Declaration	3
3.	Abbreviations	6-7
4.	Observational learning	8-19
4. (a.)	Organisation introduction	8-9
4. (b.)	Mission	10
4. (c.)	Vision	10
4. (d.)	Values	10
4. (e.)	General findings	11-19
5.	Project report on “Surgical safety checklist”	20-60
5. (a.)	Introduction	21-25
5. (b.)	Literature review	26-28
5. (c.)	Rationale	28-29
5. (d.)	Research question	29

5. (e.)	Objectives	30
5. (f.)	Research Methodology	30
5. (g.)	Data analysis and interpretation	31-56
5. (h.)	Suggestions and recommendations	57
5. (i.)	Conclusion	58
6.	References	59
7.	Annexure	60-62

ABBREVIATIONS / ACRONYMS

SSC	Surgical Safety Checklist
WHO	World Health Organisation
OT	Operation Theatre
OR	Operating Room
ENT	Ear Nose Throat
PAC	Pre Anaesthetic Check up
NABH	National Accreditation Board for Hospital and Healthcare
IPD	Inpatient department
OPD	Outpatient department
CTVS	Cardiothoracic and Vascular Surgeries
CT	Computerized Tomography
ECG	Electrocardiography
KTU	Kidney Transplant Unit
CCU	Critical Care Unit
GI SURGERIES	Gastro Intestinal Surgeries
H.O.D	Head of the Department
NABL	National Accreditation Board for Testing and Calibration Laboratories

IVF CENTRE	In vitro Fertilization Centre
ECHO	Echocardiogram
TMT	Treadmill Test
PFT	Pulmonary Function Test
PATH LAB	Pathology Laboratory
CATH LAB	Cardiac Catheterization Laboratory
CSSD	Central Sterile Supply Department
LAMA	Leave Against Medical Advice
ICU	Intensive Care Unit
TPA	Third Party Administrator
UHID	Unique Health Identification Number
EHC	Executive Health Check up
UPS ROOM	Uninterruptible Power Supply Room
SICU	Surgical Intensive Care Unit
COT	Cardiac Operation Theatre
MRD	Medical Record Room
HDU	High Dependency Unit
F AND B	Food and Beverages
MS EXCEL	Microsoft Excel
TOP	Time Out Patient

OBERVATIONAL LEARNING

HOSPITAL INTRODUCTION



The Ivy Healthcare Group is a tertiary care hospital which is widely spread in different parts of Punjab. It was set up as a result of Mr Gurtej Singh and his wife Dr Kanwaldeep's courage, combined with their ambitious and inventive plans to make quality medical care and healthcare services open and moderate. A drive that has changed the medical care scene of the region. They have been productive in making an

appropriate arrangement of activity close by making clinical consideration more open and moderate. The Ivy Healthcare Group stands declaration to a standout amongst other patient-care facilities in Punjab. Ivy Hospitals, where empathy rules over corporate greed, quality medical services therapies are given utilizing condition of-workmanship equipment - at sensible rates, stand tall as maybe the most sought after and trustworthy medical care association of North India.

With a group of profoundly qualified and experienced specialists, from premier organizations of the country, numerous unpredictable cases and medical procedures are performed across the six facilities in the group. All facilities are NABH compliant and most hospitals are NABH accredited - which is the best quality accreditation for hospitals in India. The flagship hospital in Mohali was set up in 2007 with a guarantee to give moral therapy to all and take quality healthcare services to the doorstep of individuals from all segments of the general population. The group currently provides treatment to more than 200,000 patients yearly and has near 1100 beds and more than 25 super-specialties across its six facilities.

The promoter's reluctance to adjust to cultural norms of a "secure" professional life and their confidence in the Almighty has been a wellspring of solidarity to drive them alongside all difficulties they experienced to seek after their enthusiasm of giving quality consideration administrations to individuals across all financial layers. Their empathy towards the general public and the inclination to show proactive kindness alongside a solid pioneering energy prompted the initiation of their first clinic and there has been no thinking back for this powerful visionary team, since.

As healthcare is a quickly evolving area, The promoters have put a ton in quality controls, innovative progressions and facilitating numerous proceeding with clinical training programs for specialists and staff, to urge them to keep in contact with most recent therapies and methods.

Gone against to careless extension, they like to design enhancement and branching dependent on viability. They are driven by a sole mission-to give legitimate and reasonable medical care administrations to all. In view of this unbiased, they have effectively found a way ways to take elite healthcare to the doorstep of the population in Tier 2/3 urban cities of North India, like Nawashaher, Khanna and Hoshiarpur - where Ivy Hospital is the only hospital providing multi-super speciality cares under one rooftop.

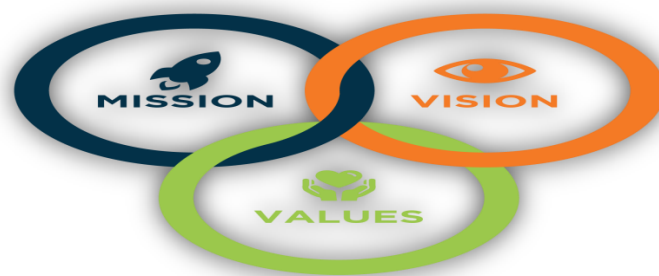
Dr Kanwaldeep and Mr Gurtej emphatically feel that healthcare isn't and ought not be treated as an item or business, it must be a mission. The nobility of this profession must be held and healthcare services must be moral, moderate and straightforward and they are focused on keeping up that at the Ivy Healthcare Group, definitely.

Ivy Hospital Mohali is a leading Hospital of Ivy Healthcare Group.

It is a 205-bed relations with multi Specialty Tertiary Care Hospital. It started its exercises way back in 2008 and this year completing 11 years in Operation; it is the main medical clinic in the locale. It's anything but a state of the art current office certify by NABH organized in a perceptible region at Mohali.

It has a created space of mutiple, 50,000 square feet. Straightforwardly from the time of establishment to the latest clinical development getting, ivy Hospital Mohali has reliably kept its patients first and strived to pass on not elite yet rather the world's best thought for its patients since its introduction.

The clinic is giving tertiary level clinical consideration in Cardiology, Cardio Vascular and Thoracic Surgery, Oncology, Neurosurgery, Neurology, Urology, Nephrology, Renal Transplant Surgery, Laparoscopic operation, Vascular Surgery, Orthopedics, Plastic Reconstruction and Cosmetic Surgery other than different offices. The medical clinic has utilized astoundingly qualified and experienced experts to head different divisions.



VISION

“To provide the largest and the most respected healthcare providers in the region”

MISSION

“To provide world class healthcare services at honest and affordable prices with adherence to ethical code of conduct”

VALUES

Over the years Ivy Hospital has evolved a lot but the values it’s built on remain the same.

- **Teamwork**
- **Honesty and integrity**
- **.Leadership and excellence**

- **Empathy and patience**
- **Equity**
- **Education**
- **Dignity and respect**

GENERAL FINDINGS

QUALITY POLICY

So as to set up an arrangement of clinical greatness, patient centricity, administration conveyance and moral practices, group Hospital, through adherence to set up principles of medical care conveyance, will apply clinical science and innovation in such a manner in order to boost advantages to medical services without attendant dangers

CLINICAL SERVICES

- **ADVANCED CANCER CENTRE**
- **CARDIOLOGY**
- **CCU**
- **CTVS**
- **RHEUMATOLOGY**
- **CARDIOTHORARIC SURGERIES**
- **DENTISTRY**
- **DERMATOLOGY**
- **ENT**
- **GASTROENTEROLOGY**
- **GASTRO INTESTINAL SURGERIES**
- **GENERAL SURGERIES**
- **ORTHOPEDICS AND JOINT REPLACEMENT**
- **MEDICAL ONCOLOGY**
- **SPECIAL ONCOLOGIES**
- **NEPHROLOGY**
- **NEUROLOGY**
- **IVF CENTRE**
- **CHILD BIRTH**
- **PHYSIOTHERAPY**
- **PULMONOLOGY**

- **PAEDIATRICS**
- **EYE CARE**
- **HAIR TRANSPLANT**
- **GYNEACOLOGY AND OBSTRETRICS**
- **PLASTIC SURGERY**
- **UROLOGY**
- **VASCULAR SURGERY**
- **NUTRITION**
- **NEUROPHYSIOLOGY**
- **LAPROSCOPY AND ROBOTIC SURGERIES**

24 HOUR SERVICE

- **EMERGENCY SERVICE**
- **AMBULANCE SERVICE**
- **PHARMACY SERVICE**
- **LABORATORY SERVICES AND IMAGING SERVICES FOR IPD**
- **BLOOD CENTRE (TRANSFUSION)**

DIAGNOSTIC SERVICES

Diagnostic procedure is an investigation to find patient's exact part of problem in order to control a disease using external technology like

- **X – Ray**
- **Ultrasound**
- **Mammography**
- **C T scan**
- **MRI**
- **ECHO / TMT**
- **PFT**
- **ENDOSCOPY**
- **ECHOCARDIOGRAPHY**
- **ELECTROCARDIOGRAM**
- **PATH LAB**
- **SAMPLE COLLECTION ROOM**
- **KTU**
- **CATH LAB**

UTILITY SERVICES

- **ONLINE CONSULTATION**
- **VISA ASSISTANCE**
- **TRAVEL ARRANGEMENTS**
- **AIRPOT TRANSFERS**
- **AIRPORT PICKUPS**
- **AIR AMBULANCE**
- **SEPARATE ROOMS FOR ADMISSION**
- **ROOMS WITH TELEPHONE AND TV**
- **DRY CLEANING**
- **INTERNET WITH WIFI**
- **MOBILE SIM CARDS**
- **ACCOMODATION FOR ATTENDANTS**
- **VEG AND NON – VEG FOOD (CAFETARIA)**
- **ATM**
- **CURRENCY EXCHANGE**
- **NETBANKING , DEBIT CARD , CREDIT CARD**
- **LOCAL TRANSPORTATION BOOKING**
- **MEDICAL RECORD TRANSFER**
- **POST TREATMENT FOLLOW UP**
- **LAUNDARY**
- **MORTUARY**
- **STORE ROOM**

INTENSIVE CARE UNIT

- **ORTHO ICU**
- **MEDICAL ICU**
- **SURGICAL ICU**
- **CARDIAC SURGERY**
- **PADRIATIC ICU**
- **RICU**

OUT PATIENT DEPARTMENT

Outpatient division is characterized as a part of the hospital organization with dispensed actual offices with clinical and other staff individuals in adequate number with routinely booked hours, to take care of patients who are not enlisted as in-patient. The OPD offices give the fundamental linkage of the emergency clinic with the local area.

Ivy Hospital, Mohali is a tertiary healthcare facility; it is having OPDs with 50-70 patients waiting capacity in the waiting area.

In order to avail the services offered at the hospital, the patient should register at the main reception. The IPD registration is done around the clock and the form for the same is to be filled up and handed over at the counter itself. Accurate information must be provided in the form.

It is highly recommended to write your details as per legal documents to avoid inconvenience especially for medical reimbursement/ LIC purpose. Please carry the OPD registration card and patient file on every hospital visit. Your Unique Hospital Identification Number (UHID) is important to make sure that you receive timely services.

In case of TPA patients, the admission has to be reported to the insurance company within 24 hours.

EXECUTIVE HEALTH CHECKUP (EHC)

The hospital provide preventive care services in the form of executive health checkups. It includes different health packages for different group of people on reasonable charges.

- Child health checkups
- Senior citizen health checkups
- Well women health checkups
- Whole body checkups
- Pre – employment health check – ups
- Routine medical health checkups

IPD (INPATIENT DEPARTMENT)

Indoor patient department caters the services for patients who require continue observation and supervision of experts, acute and intensive medical care and emergencies. In the hospital a separate IPD area is there which has floors and a basement.

BASEMENT	DENTAL
	DERMATOLOGY WARD
	ENT WARD

	PSYCHIATRY WARD
	PHYSIOTHERAPY WARD
	RADIATION ONCOLOGY
	RADOTHERAPY
	MANTAINANCE AREA
	IPD PHARMACY
	ADVANCED CANCER CENTRE
	MORTUARY
	STORE ROOM
	LAUNDARY
	BILLING
GROUND FLOOR	PHARMACY OPD
	CANTEEN
	OPD
	NEURO WARD
	ENT WARD
	ENDOCRINOLOGIST WARD
	EYE WARD
	ONCOLOGIST WARD
	NUTRITIONIST WARD
	ORTHOPEDICS WARD
	PATH LAB
	COUNSELLOR OFFICE
	LAB QUALITY CELL
	RECEPTION
	ECHO / TMT
	ORTHO OPD
	CARDIO OPD
	SAMPLE COLLECTION ROOM
	ORTHO OPD
	MARKETING AREA
	WAITING AREA
	RADIO DEPARTMENT
	UPS ROOM
	GASTROENTRO WARD
	MAMOGRAPHY DEPARTMENT
	EMERGENCY MEDICAL OFFICER
FIRST FLOOR	HR DEPARTMENT
	FACILITY HEAD DEPARTMENT
	VICE PRESIDENT DEPARTMENT
	BLOOD CENTRE (TRANSFUSION)
	ACCOUNTS DEPARTMENT

	HOSPITAL HEAD
	RECEPTION
	IVF CENTRE
	LABOUR ROOM
	OT COMPLEX
	ICU
	ORTHO ICU
	ORTHO WARD (ELITE)
SECOND FLOOR	DIALYSIS
	RECEPTION NEPHROLOGY (FRESENIUS MEDICAL CARE)
	GENERAL WARD 2,4,5,6,7
	PRIVATE WARD 2
	KTU
	BIOMEDICAL ENGINEERING DEPARTMENT
	CCU
	COT (CARDIAC O T)
	SICU
	CATH LAB
	NURSERY
	SPECIAL ONCOLOGY DEPARTMENT
	NEUROPHYSIOLOGY DEPARTMENT
	NEURO SURGERY WARD
	RICU
THIRD FLOOR	COVID RESTRICTED AREA
	PRAYER ROOM
	PRIVATE WARD 3 A
	MEDICAL SUPERINTENDENT ROOM
	GUEST RELATION DEPARTMENT
	PRIVATE WARD 3 B
FOURTH FLOOR	NURSING EDUCATION DEPARTMENT
	MRD

- Ivy Hospital, Mohali is distributed over 4 floors including 205 beds in total.
- Every bedside has:**
- Details of consultant, nurse and mentor written at the top of every bed
 - Room equipment checklist – side rails , oxygen , suction
 - Important instructions

Every floor has nursing stations.

- Connectivity of floors:**
- Lifts
 - Stairs

- Ramp

Fire safety equipment:

- Fire alarm
- Emergency fire exit
- Smoke sensor
- Fire extinguisher cylinders

Gas pipe lines:

There are different colour pipe lines for different gases for WARD, ICU, and OT

- Yellow pipe with white band : oxygen line
- Yellow pipe with blue band : nitrous oxide line
- Yellow pipe with black band : vacuum line
- Blue pipe with white band : air line

Waiting area:

Every ward and ICU have waiting area attached with them which has open space as well as some fixed chairs and attached washrooms.

Infection Control: Only 1 chaperon is permitted in the single and double room, other than the meeting hours. Similarly 1 person in G. Ward during visiting hours.

Attendant Visitor Pass: These will be given according to the room/bed assigned at the hour of admission. On move of the patient to another ward/room, sympathetically trade your passes from the IPD gathering. On release, return the takes a break of bill leeway. Loss of passes will be charged at Rs. 50 for each pass

Night Sleeping Facility: ICU/CCU/HDU and General Ward orderlies can utilize the entryway region to rest around evening time. For different rooms, 1 orderly is permitted each night.

No eatables from outside are allowed in the Hospital; This is because of dietary limitation and disease control. Chaperons can profit of our F&B administrations or the cafeteria.

F&B Service: The normal suppers for the patients are a piece of the room tax and any remaining requests to the F&B administrations are chargeable in the patient's last bill.

Do not bring medicines from outside

ICU Guidelines:

Sympathetically Switch off your Cell Phone: Pagers, beepers and other remote gear are not permitted in the Intensive Care Zones in the clinic as these meddle with the Patient Monitoring System. Nonetheless, the gadgets can be utilized in the Waiting Area

Youngsters Below 12 not allowed: Do not bring kids under 12. This is a prudent step as youngsters are inclined to get disease.

- **Stopping/Token Cards:** These will be given to the specialist. This will entitle you to leave your vehicle in the clinic premises. Likewise during evening, just 1 vehicle will be permitted to be left. Stopping for over 24 hours won't be allowed without earlier consent. Kindly park your vehicles appropriately to stay away from any bother to other people.
- **Non-Smoking Policy:** The whole clinic is a 'No-Smoking Zone'. Sympathetically don't smoke anywhere in the clinic. If it's not too much trouble, try not to carry expensive things to the clinic. These may be at the danger of getting lost/lost
- **Blessings/Flowers:** For the reasons of contamination control, blossoms are not permitted in any Patient Area

All Intensive Care Areas are sterile zones and all chaperons are needed to wear fitting clothing as taught and given by the emergency clinic staff

DICHAARGE FROM IPD

- The release measure started solely after the patient's expert considers him/her for release.
- Discharge timing is before 12 pm.
- In case a patient doesn't wish to proceed with his/her visit at the emergency clinic he/she can, in conference with their primary care physician, request the leave against clinical counsel (LAMA).
- Before leaving the patient's orderly requirements to check his/her room cautiously for any close to home things, emergency clinic isn't at risk for their assets.
- To benefit an emergency vehicle transport office, the patient can place in a solicitation at the nursing counter/gathering counter.
- When you are being released from the emergency clinic, the specialist and medical attendant, dietician, drug specialist will clarify the therapy plan which you ought to follow.
- For wholesome inquiries dietician can be thought of.

OT (OPERATION THEATRE) COMPLEX

Operation Theatre Complex (OT) of Ivy Hospital, Mohali is located on first and second floor. Operation theatre complex has 6 operation theatres assigned to various departments. OTs are modular with all the structural and equipment's facilities available.

The staff of OT are organised into 4 groups

- ❖ Anaesthetist
- ❖ Surgeon
- ❖ Nursing staff
- ❖ Technician and support staff.

All the operation theatres are well equipped and maintained to perform various kinds of surgeries.

All OTs have

- ❖ HEPA filters
- ❖ Temperature of OT is maintained 18-21 degree approx.
- ❖ Humidity is 50-55%
- ❖ Positive pressure of around 15 Pascal
- ❖ Positive Pressure is maintained

OT complex has a backup of CSSD (Central Sterile Supply Unit)

The maintenance of patient safety is an important concern for Hospital. Ivy Hospital, Mohali also follows WHO's Surgical Safety Checklist to keep an eye on the standards to be followed in the process flow of surgery for the safety of its patients. The careful wellbeing agenda has three significant components: the sign in, before acceptance of sedation, the break, prior to giving an entry point inside the working room and sign out, prior to leaving the working room.

CAFETERIA

It is an outsourced service. A cafeteria in waiting lounge which provides snacks, tea and coffee. Cafeteria is opened 24*7.

EMERGENCY

Emergency department establishes a group of exceptionally particular doctors and specialists. Basically sick patients because of ailment or patients who are harmed seriously by life – undermining occasions and deadly harming are quickly taken under the consideration and revived, settled and oversaw according to the conventions. Emergency department is located at ground floor of IPD building. It caters 24*7 services.

The emergency patient is first assisted by triaging team that consist of one Doctor and assistant nurse. There is minor OT in emergency department for suturing and other minor problems. In minor OT there is OT table, High risk mask light, and emergency medicines. The patient is then shifted to categorised department after recognizing the level of severity.

MEDICAL RECORD ROOM

The key function of the department are :

- ✓ To keep the record of IPD patients and discharge form the hospital files
- ✓ ICD Coding of all the patients.
- ✓ To maintain the IPD records of obligation.
- ✓ To provide the records whenever requested as per the law and also to dispose of the old records according to the law.
- ✓ . Bill confirmation for the public authority workers

ACCREDITATION

Quality accredited by

- National Accreditation Board for Hospitals (NABH)
- National Accreditation Board for Testing and Calibration Laboratories. (NABL)

REPORT
ON
COMPLIANCE OF SURGICAL
SAFETY CHECKLIST IN
OPERATION THEATRE
AT
IVY HOSPITAL, MOHALI

INTRODUCTION

With the increase in healthcare problems and increased service complexity and due to expanding of inclusion has prompted abrupt ascent in number of unfriendly occasions and exercises, which are described as unplanned wounds achieved by clinical misstep instead of the sickness connection itself. Due to maintaining proper, good documentation has helped in identifying the size and severity of healthcare problems.

Cautious thought has been a principal part of clinical consideration worldwide for more than a century. As the paces of awful wounds, tumors and cardiovascular affliction continue rising, the impact of cautious intercession on broad prosperity systems will keep on creating. Medical procedure is regularly the lone treatment that can ease handicaps and decrease the danger of death from normal conditions. Consistently, a large number of individuals go through careful treatment, and careful mediations. While surgeries are expected to save lives, hazardous careful consideration can cause significant mischief. Given the pervasiveness of medical procedure, this has critical ramifications:

- The announced unrefined death rate after significant medical procedure is 0.5 – 5 %
- Complications after inpatient tasks happen is up to 25%
- In industrialized nations, almost 50% of all antagonistic occasions in hospitalized patients are identified with careful consideration
- At least half of the cases wherein operation incited hurt are considered preventable

WHO has endeavored different worldwide and nearby drives to address careful wellbeing. Much of this work has stemmed from the WHO 2nd Global Patient Safety Challenge “**Safe Surgery Saves Lives**”. Safe Surgery Saves Lives refocus to chip away at the security of cautious thought all through the planet by describing a middle course of action of prosperity rules that could be applied in all WHO Member States.

The agenda fundamentally has three specific phases of an activity, each stage contrasting with a specific period inside the common stream of work in OT in the midst of system. In each stage a plan coordinator attests that the cautious gathering has completed the recorded jobs referenced in the agenda before they continue alongside the technique.

As with any unused apparatus, one of the greatest challenges of the WHO Surgical Safety Checklist is to guarantee its fruitful usage. WHO in this way propelled an execution manual nearby the Checklist to help its presentation. It is vital to extend mindfulness of this security activity. Surgical Safety Checklist is introduced by WHO in June 2008, with significant input from UK clinicians. An overall investigations since 2008 have shown the utilization of agenda decrease the pace of mortality and careful complexities by however much 33% inside the OT where it is used. The execution manual is wanted to help ensure that careful groups can complete the agenda dependably. By two or three fundamental advances, medical care specialists can limit the conjecture normal and avoidable perils jeopardizing the lives and well – being of careful patients.

SURGICAL SAFETY CHECKLIST

A surgical safety checklist is a patient wellbeing specialized apparatus that is utilized by a group of working room experts (medical attendants, specialists, anesthesiologists, and others) to examine significant insights concerning each careful case.

The Surgical Safety Checklist is an instrument outlined to progress communication and corporation by bringing together the specialists, anesthesia suppliers and medical caretakers include in care to affirm that basic security measures are performed some time recently, during and after an operation. The checklist serves as a basic communication apparatus for the working theatre group.

From multiple points of view, the careful agenda is like a carrier pilot's agenda utilized not long before take-off. It is a last check before a medical procedure used to ensure everybody knows the significant clinical data they need to know about the patient, all equipment is available and in working order, and everybody is prepared to continue.

These checklist include 3 stages, each contrasting with a specific time-frame inside the customary stream of a method. At each stage, the facilitator ought to be permitted to state whether the group has completed their tasks as of late. The functioning group wound up getting to know the different strides of the agenda. Each group merge to use the careful security agenda into their work with greatest adequacy and irrelevant interruption in order to accomplish the means flourishingly.

The point of such agenda is to effectively and beneficially ensure that all conditions are ideal for calm security which all staff are recognizable and capable and bumbles in actually, area and kind of technique are avoided totally. By following a couple of basic advances, medical care specialists can limit the most widely recognized and avoidable dangers imperilling the lives and well – being of careful patients.



❖ **SIGN IN :**

Sign in is the first phase of WHO checklist. The moment patient gets into preoperative, the following safety checks are verified:

- medicine, hypersensitivity and compromise
- location markings prerequisites
- anaesthesiology fasting
- oxygen and aspiration status
- transfusion and liquid prerequisites
- sometimes recently the quite experiences anaesthesia, the understanding must affirm his / her personality
- location of operation
- What strategy needs to be carried out which he / she agreed for
- The location of operation must be stamped on the off chance that pertinent. At that point the nearness or nonattendance of hypersensitivities must be checked, the sum of anticipated blood misfortune examined, and a soporific safety check must be completed.

❖ **TIME OUT :**

The second phase as per WHO under surgical safety checklist is Time Out. The time out is called by the OT nurse in the presence of all the team members. The time out is called only preceding the skin incision. The patient is fully draped and the incision area is sterile. Before the first incision to patient's body or the surgical site, all the team members are expected to maintain a silence or must take surgical pause. In this phase, every individual inside the OT must introduce themselves by name and role. The surgeon and anaesthetist must confirm the ID that includes, name of the patient and the procedure taking place and any anticipated critical events.

❖ **SIGN OUT:**

STANDARD SURGICAL SAFETY CHECKLIST BY “WHO”

25

STANDARD SURGICAL SAFETY CHECKLIST BY “WHO” **FOLLOWED IN IVY HOSPITAL, MOHALI**

SURGICAL SAFETY CHECKLIST (To be completed inside OT)		
SIGN IN _____ PRIOR TO INDUCTION OF ANAESTHESIA ☐ PATIENT CONFIRMED Identity Site Procedure Consent ☐ SITE MARKED / NOT APPLICABLE ☐ ALL INSTRUMENTS & EQUIPMENTS CHECKED AND AVAILABLE FOR SURGERY / PROCEDURE ☐ Yes ☐ No ☐ DOES PATIENT HAVE A KNOWN ALLERGY? ☐ Yes ☐ No ☐ Equipment / Assistance available ☐ ALL INVESTIGATION REPORTS AVAILABLE ☐ Yes ☐ No ☐ ANAESTHESIA SAFETY CHECK COMPLETED ☐ DIFFICULT AIRWAY / ASPIRATION RISK ? ☐ No ☐ Yes ☐ Equipment / Assistance available ☐ RISK OF >500ML BLOOD LOSS (7 ML/KG IN CHILDREN) ☐ No ☐ Yes ☐ Adequate IV Access / Fluids / Blood & Blood Products Planned	TIME OUT _____ PRIOR TO SKIN INCISION ☐ SURGEON, ANAESTHESIOLOGIST AND NURSE VERBALLY CONFIRM Patient : _____ Site : _____ Procedure : _____ ☐ ESSENTIAL IMAGING DISPLAYED ☐ Yes ☐ Not Applicable ☐ ANTIBIOTIC PROPHYLAXIS GIVEN IN LAST 60 MINUTES? ☐ Yes ☐ Not Applicable ☐ Time : _____	SIGN OUT : _____ PRIOR TO PATIENT LEAVING THE OPERATION ROOM ☐ NURSE VERBALLY CONFIRMS WITH THE TEAM: ☐ The Name of the Procedure Recorded ☐ That Instrument, Sponge and Needle Counts are Correct (or Not Applicable) ☐ The Specimen is Labeled (Including Patient Name) ☐ Whether there are any equipment problems to be addressed. ☐ SURGEON, ANESTHESIOLOGIST AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT. SURGEON Name : _____ Signature : _____ ID Number : _____ Date : _____ ANESTHESIOLOGIST : Name : _____ Signature : _____ ID Number : _____ Date : _____ NURSING STAFF : Name : _____ Signature : _____ ID Number : _____ Date : _____

LITERATURE REVIEW

1. Use of surgical safety checklist to improve team communication

Richard A. Cabral (September 2016)

Cabral, R., Eggenberger, T., Keller, K., Gallison, B., & Newman, D. (2016). Use of a Surgical Safety Checklist to Improve Team Communication. *AORN Journal*, 104(3), 206-216.

<https://doi.org/10.1016/j.aorn.2016.06.019>

The World Health Organization has developed Surgical Safety Checklist to improve surgical team communication, teamwork climate and surgical outcomes. The process improvement team has implemented the checklist that has positively and significantly affected the findings and other evidence-based conclusions, the hospital is adopting the SSC in operating room. Further recommended that a locally adapted WHO Surgical Safety Checklist be adopted for use throughout the hospital system.

2. Long – term effects of a perioperative safety checklist from the viewpoint of personnel

A.B. BOHMER, P. Kindermann, U. Schwanke, F. Wapperler (27 November 2012)

BÖHMER, A., KINDERMANN, P., SCHWANKE, U., BELLENDIR, M., TINSCHMANN, T., & SCHMIDT, C. et al. (2012). Long-term effects of a perioperative safety checklist from the viewpoint of personnel. *Acta Anaesthesiologica Scandinavica*, 57(2), 150-157

. <https://doi.org/10.1111/aas.12020>

While positive short-term effects of the use of surgical safety checklist have earlier been discussed by staff, it is muddled to which degree these impacts are kept up with for a long – term period. The aim of this study was to evaluate perioperative safety standards and the quality of inter professional corporation from the viewpoint of the involved personnel for up to 2 years following the introduction of a safety checklist.

3. Effects of the introduction of the “WHO” Surgical Safety Checklist on In- Hospital Mortality : A Cohort Study

W.A.MD, PhD; Hoff, R.G.MD, PhD; E. E. H. L.MD; Simmermacher, R .K. J. MD (January 2012)

The study was done to evaluate the effect of implementation of the WHO’s surgical safety checklist on mortality and to decide how much the potential impact was identified with agenda consistence.

Execution of the 'WHO' Surgical Safety Checklist decreased mortality in medical clinic. Although the impact on outcome was smaller than previously reported, the effect depended totally upon safety checklist compliance.

4. Compliance with a Time – out procedure (TOP) intended to prevent wrong surgery in hospitals: results of a national patient safety programme in the Netherlands.

The Dutch hospital patient safety program (July 2014)

van Schoten, S., Kop, V., de Blok, C., Spreeuwenberg, P., Groenewegen, P., & Wagner, C. (2014). Compliance with a time-out procedure intended to prevent wrong surgery in hospitals: results of a national patient safety programme in the Netherlands. *BMJ Open*, 4(7), e005075-e005075.
<https://doi.org/10.1136/bmjopen-2014-005075>

TOP consistence rate was 71.3% at the hour of conclusive Safety Program and no advancement in consistence rate found. A tremendous variety was found among emergency clinics, and these distinctions were impacted by patient's age. Consistence was impacted by different components which incorporates emergency clinic type, careful strength, patient age and mindfulness of careful colleagues during the call of TOP. Also, in practically a large portion of the TOPs, the group was not mindful on the TOP or the careful colleague was not accessible in the OT. Regardless of the way that almost three quarter of tasks are gone before by a TOP, clinics need to put forth an attempt to further develop TOP consistence and the manner by which the TOP is done to keep wrong a medical procedure from occurring later on.

5. **Barriers to staff transformation of a Surgical Safety Checklist**

Aude Fourcade, Jean – Louis Biache, Ctherine Grenier (2011)

Fourcade, A., Blache, J., Grenier, C., Bourgain, J., & Minvielle, E. (2011). Barriers to staff adoption of a surgical safety checklist. *BMJ Quality & Safety*, 21(3), 191-197.

<https://doi.org/10.1136/bmjqs-2011-000094>

According to this study, a few of the obstructions to the effective execution of the surgical checklist relied upon organizational and social elements inside each middle. The creators propose a system for change for agenda configuration, use and appraisal, which could be utilized to develop a feedback loop for local group association and public drives.

This is an open-access article conveyed under the provisions of the Creative Commons Attribution Non-business License, which grants use, circulation, and propagation in any medium, given the first work is appropriately referred to, the utilization is non-business and is generally in consistence with the permit.

6. **A planned observational appraisal of Surgical Safety Checklist use in Brasov Children's Hospital, boundaries to execution and techniques to further develop consistence..**

Rom J Anaesth Intensive Care (Oct 2015)

It is a study conducted on assessment of WHO Surgical Safety Checklist implementation in a hospital to reduce the surgical morbidity and mortality and to improve patient safety. The data was recorded in Oct 2015 regarding compliance of each components of surgical safety checklist. All the factors are recorded and based on the data shows that the introduction of a checklist will automatically led to the improved communication between staff and patients which is essential to improve and ensure compliance.

7. Towards better patient safety: WHO Surgical Safety Checklist in otorhinolaryngology.

P. Helmio, K. Blomgren, A. Takala Department of surgery TURKU university hospital (April 2011)

Helmiö, P., Blomgren, K., Takala, A., Pauniahio, S., Takala, R., & Ikonen, T. (2011). Towards better patient safety: WHO Surgical Safety Checklist in otorhinolaryngology. *Clinical Otolaryngology*, 36(3), 242-247.

<https://doi.org/10.1111/j.1749-4486.2011.02315.x>

The World Health Organization has cultivated a Surgical Safety Checklist to work on quiet wellbeing during medical procedure . This agenda has diminished postoperative bleakness and mortality. This examination was driven at the Department of Otorhinolaryngology at the Helsinki University Central Hospital as a piece of a multicentre study. Responses were gotten concerning 288 undertakings already and 412 after plan execution This examination asserts that the Surgical Safety Checklist finds a way into the cautious working cooperation in otorhinolaryngology-head and neck an operation working on the sharing of patient-related clinical information between accomplices. Progression of a specific plan for otolaryngology requires extra assessment. Troublesome events in an operation consistently result from clear human bumble. A wide scope of operations including otolaryngology are slanted to snares related to some unsuitable side/wrong site, wrong framework and wrong lenient (WSPE). These bothers are consistently preventable by reducing risk for certified slip-ups.

RATIONALE

In today's world, surgery has become an important part of the healthcare due to changes in the lifestyle; 234 million operations are estimated to be performed yearly. A surgical safety checklist was designed to improve surgical team communication and to improve patient and specialist's connection and consistency of care would diminish confusions and passing's related with a medical procedure. This study is intended to find out the compliance of WHO's Surgical Safety Checklist in Operation Theatre complex of Ivy Hospital, Mohali. All the major surgeries of neurosurgery, orthopedics, General & Laparoscopic surgery, gynecology and gastro Surgery etc. are conducted in these OTs. This investigation will assist with dissecting the security measures taken during the surgeries, from the section of the patient into the pre-operative recovery area, safety measures taken around the operation table, before leaving the operating room and the patient in the post-operative recovery area. The point of the investigation isn't just to check the general consistence of the agenda yet in addition to analyze each and every element of the checklist and its effective usage in different surgical departments conducting surgeries in different OTs. The study will also help to understand the complete process flow of the patient inside the OT. This study is a platform to observe and analyze the challenges at each and every level of the process.

RESEARCH QUESTION

Question 1 What is the status of compliance in Operating room after the implementation of Surgical Safety Checklist under WHO standards?

Question 2 What can be the appropriate measures to improve the compliance of surgical safety checklist?

OBJECTIVES

- ✚ To check the compliance of the WHO Surgical Safety Checklist in Operation Theatre complex, Ivy Hospital, Mohali.
- ✚ To analyze the usage of each element of the Surgical Safety Checklist.
- ✚ To give recommendations for further improvement in the surgical safety of the patient.

RESEARCH METHODOLOGY

Before undergoing data collection, permission from H.O.D of the OT of Ivy hospital, Mohali was taken for the study. The nature and implications of the study was explained to the H.O.D. the observer has recorded the data with permission of the operating surgeon or anesthetist to be the part of Surgical team during procedures. To ensure internal reliability, no questions have been asked to the Surgical team members during the observational study in OT. This allowed observer to probe deeper into the current situation. The data collected has been structured keeping in mind the objectives of the study.

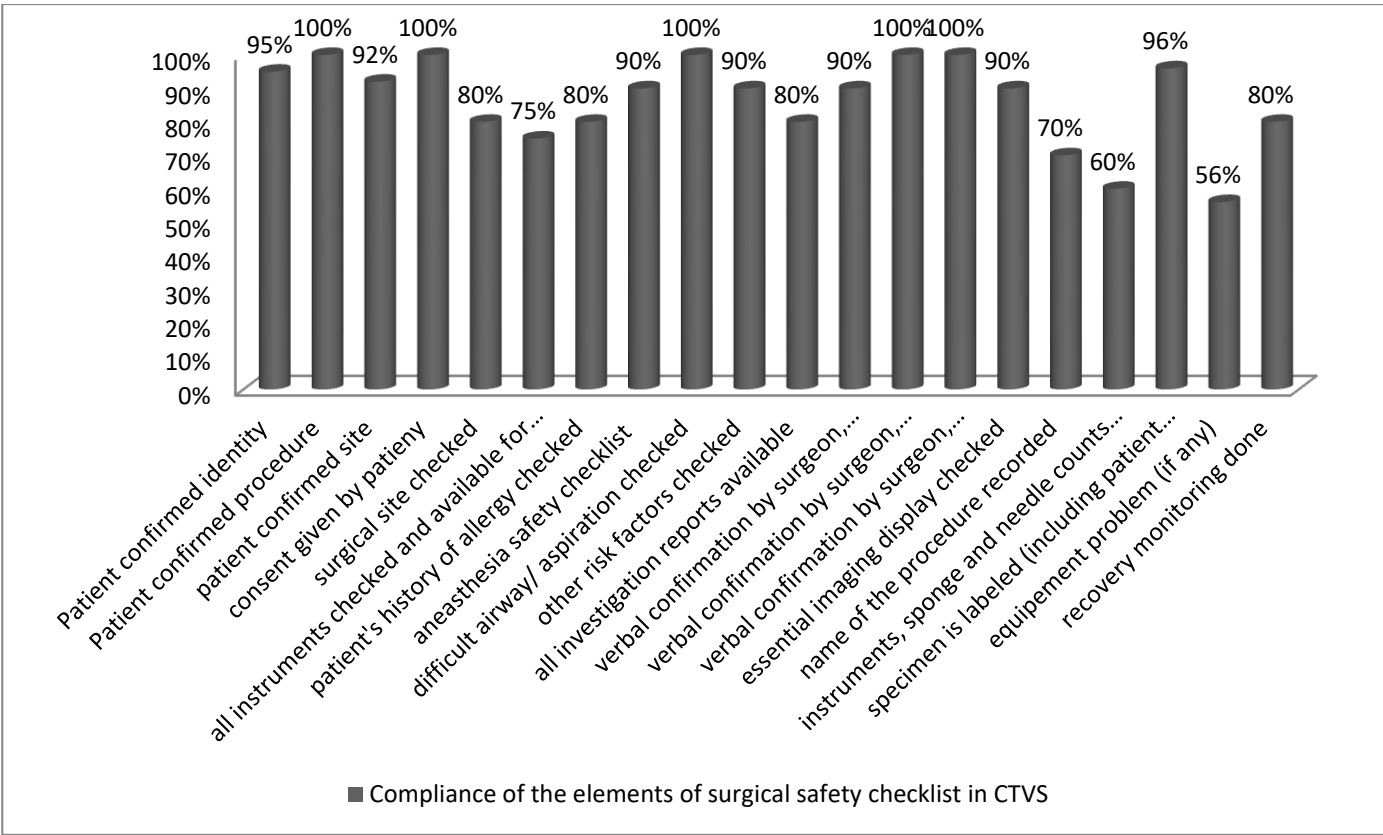
- ❖ **AREA OF STUDY:** Operation theater complex, Ivy Hospital, Mohali
- ❖ **DURATION OF STUDY:** 1 month
- ❖ **TYPE OF STUDY:** Observational cross-sectional

- ❖ **STUDY POPULATION:** In patient, Surgeons, Anesthetists, Nurses and OT staff from 20th May, 2021 to 20th June 2021 at Ivy Hospital, Mohali.
 - ❖ **TYPE OF DATA:** Quantitative
 - ❖ **TECHNIQUE:** Direct observation of the patients, doctors, nurses and the OT staff.
 - ❖ **TOOL:** Checklist
 - ❖ **SAMPLE SIZE:** The data consisted of 100 surgical procedures, from preparations until the operating theatre was ready to be ready for next persistent.
 - ❖ **SAMPLING TECHNIQUE:** convenient sampling method was used to collect data.
 - ❖ **DATA COLLECTION:** The data collection was done in one month from 20th May 2021 to 20th June 2021.
- Data was collected based on:
- Assessment of whether each phase of the checklist was completed or not by the team.
 - In evaluating whether each phase occurred at the appropriate time or not.
 - For verifying it if all relevant items were addressed or whether some of the items are neglected.
 - For assessing whether all surgical staff were present during the checklist completion or not.
- ❖ **DATA ENTERY:** Manually
 - ❖ **DATA ANALYSIS:** MS Excel using Bar charts, pie charts etc

FINDINGS

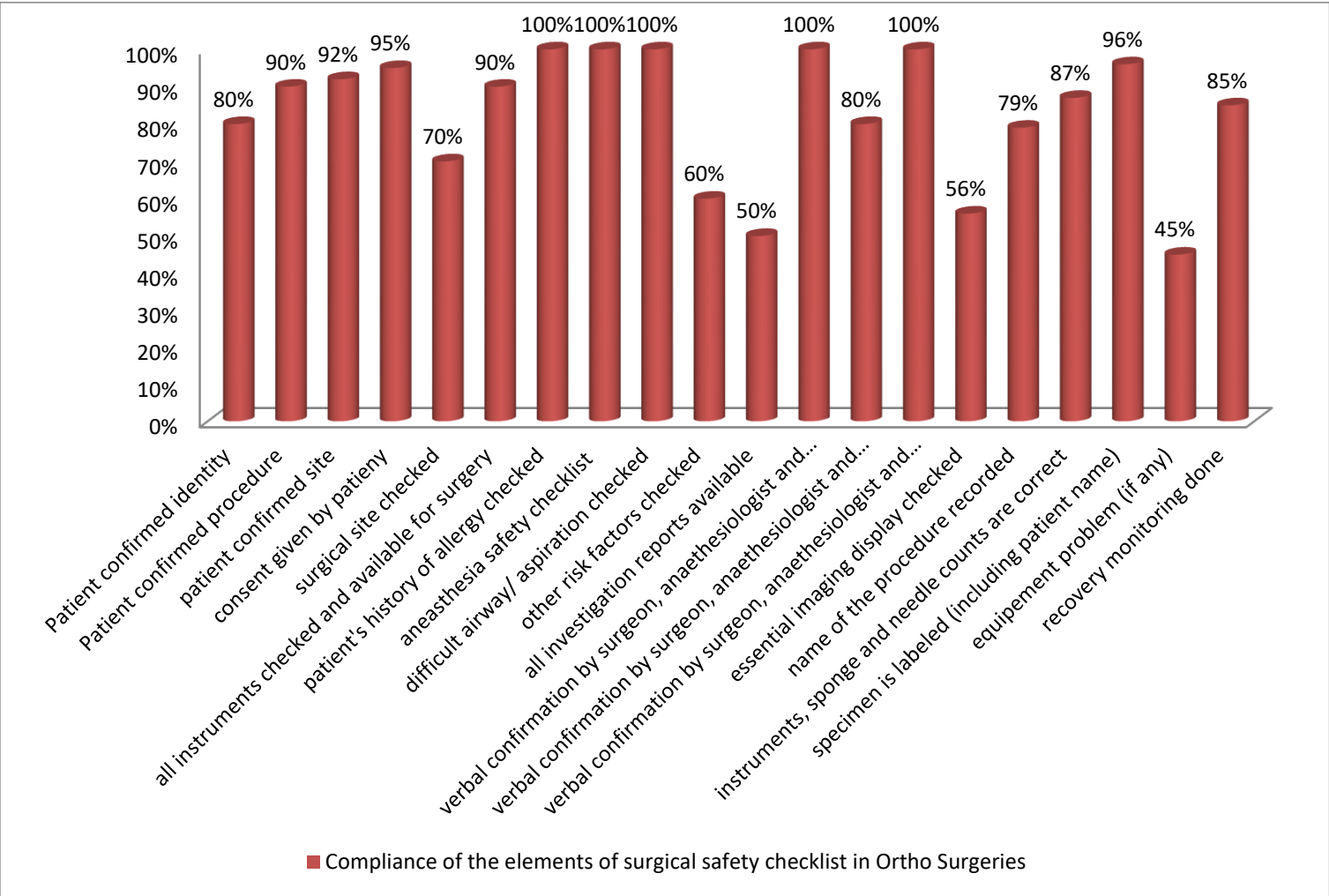
The quantitative data was obtained from the regular observation in the Operation Theatre and analyzed using MS excel. It is followed by analyzing the data taking different variables to show the Compliance of Surgical Safety in the Operating room. This step is followed by graphical presentation of data using various charts to present the findings on data. The complete work plan has been depicted in the charts given below

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN CTVS**



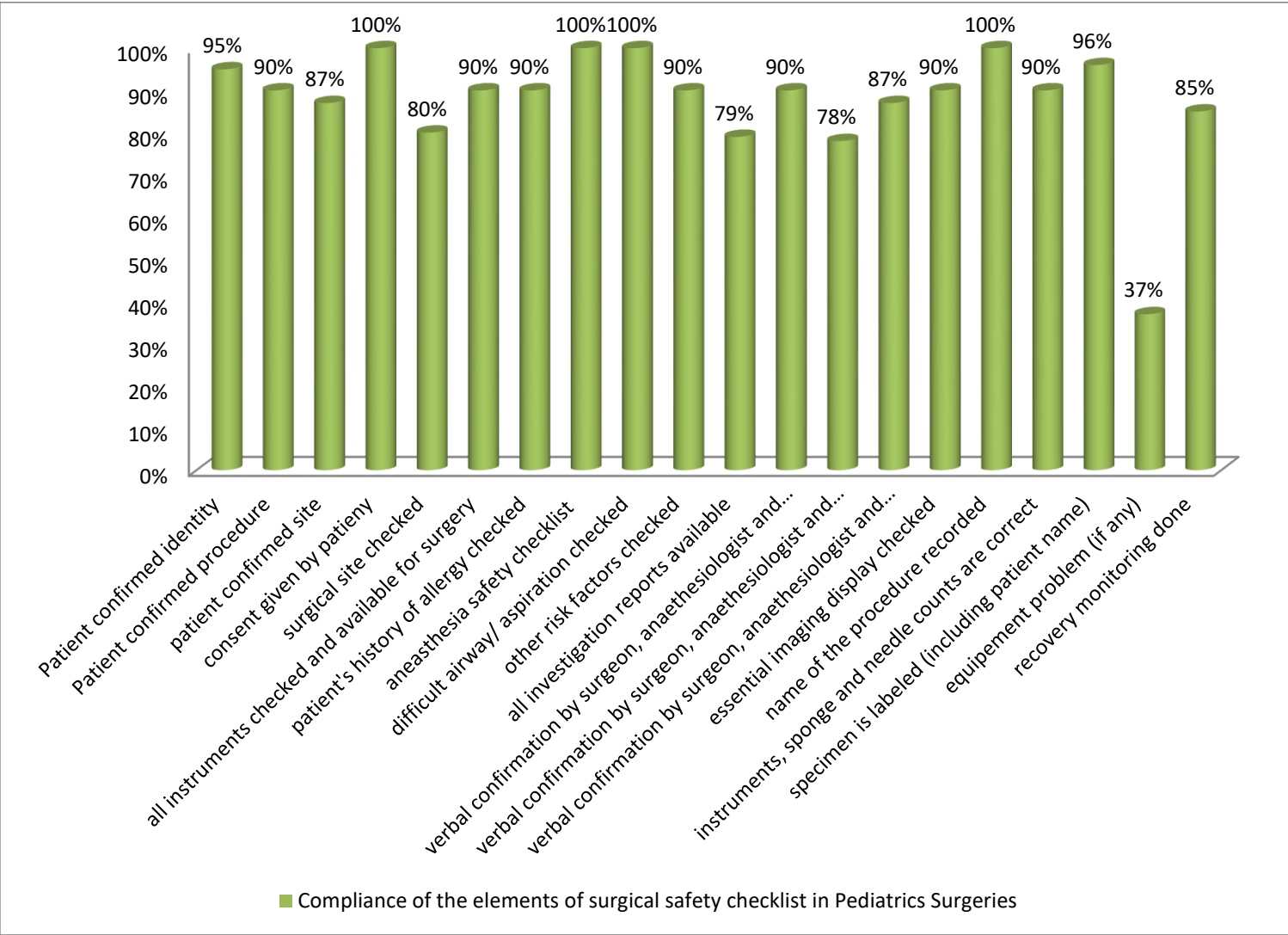
DESCRIPTION On observing the above data, it is seen that few elements out of 12 cases of CTVS have 100% or almost 100% compliance such as patient confirmed identity, procedure, site and consent, difficult airway checked, anaesthesia safety checked, other risk factors checked, all investigation reports available, verbal confirmation by surgeon, anaesthesiologist, and nurse about patient, site and procedure, specimen is labelled (including patient name), recovery monitoring done. There is 70% - 75% compliance seen with all instruments checked and available for surgery and name of the procedure recorded. There is 60% compliance seen with instruments, sponge and needle counts are correct and the equipment problem (if any) is found with compliance of 56%.

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN ORTHO SURGERIES**



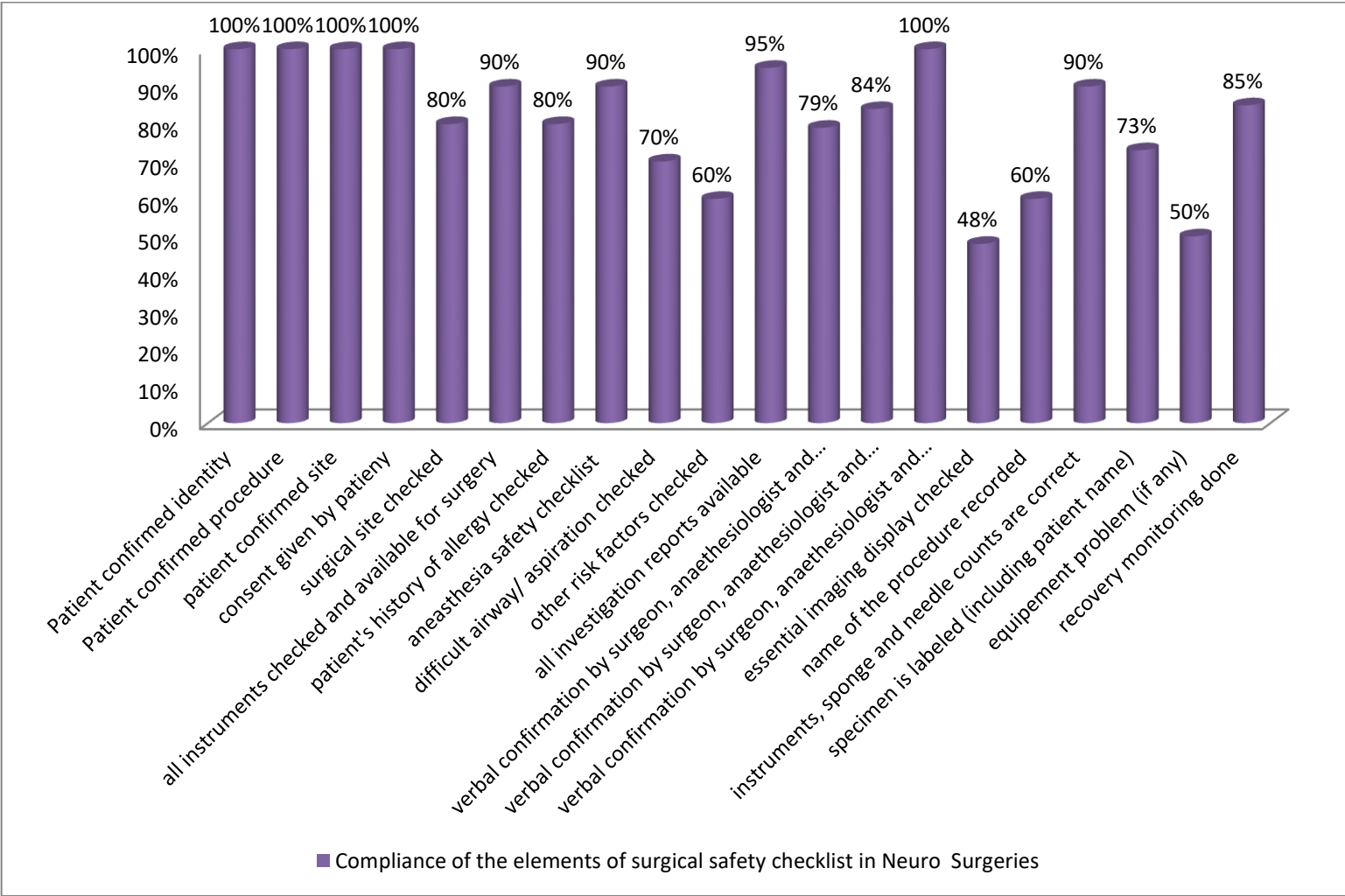
DESCRIPTION On observing the above data, it is seen that few elements out of 12 cases of orthopaedic surgeries have 100% or almost 100% compliance such as patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, patient history of allergy checked, anaesthesia safety checked, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, specimen labelled, instruments, sponge and needle counts are correct and recovery monitoring done. There is 70% compliance seen with surgical site checked. There is 79% compliance seen with name of the procedure recorded. There is 50% compliance seen with all investigation reports available and the equipment problem (if any) is found with compliance of 45%.

❖ COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN PEDIATRIC SURGERIES



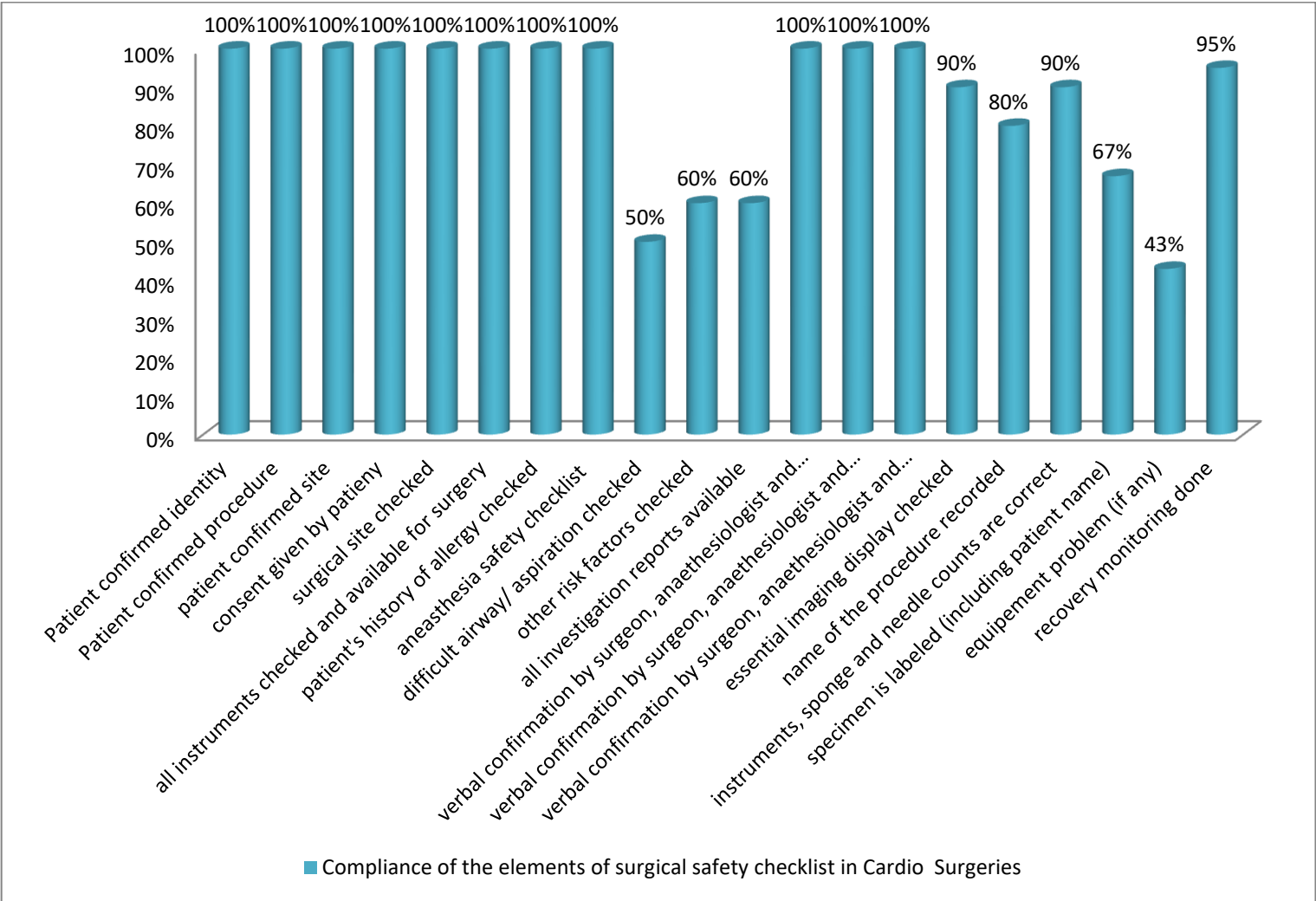
DESCRIPTION On observing the above data, it is seen that almost all elements out of 5 cases of Paediatric surgeries have 100% or almost 100% compliance. The least compliance is shown by the element equipment problem (if any) which is 37%.

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN NEURO SURGERIES**



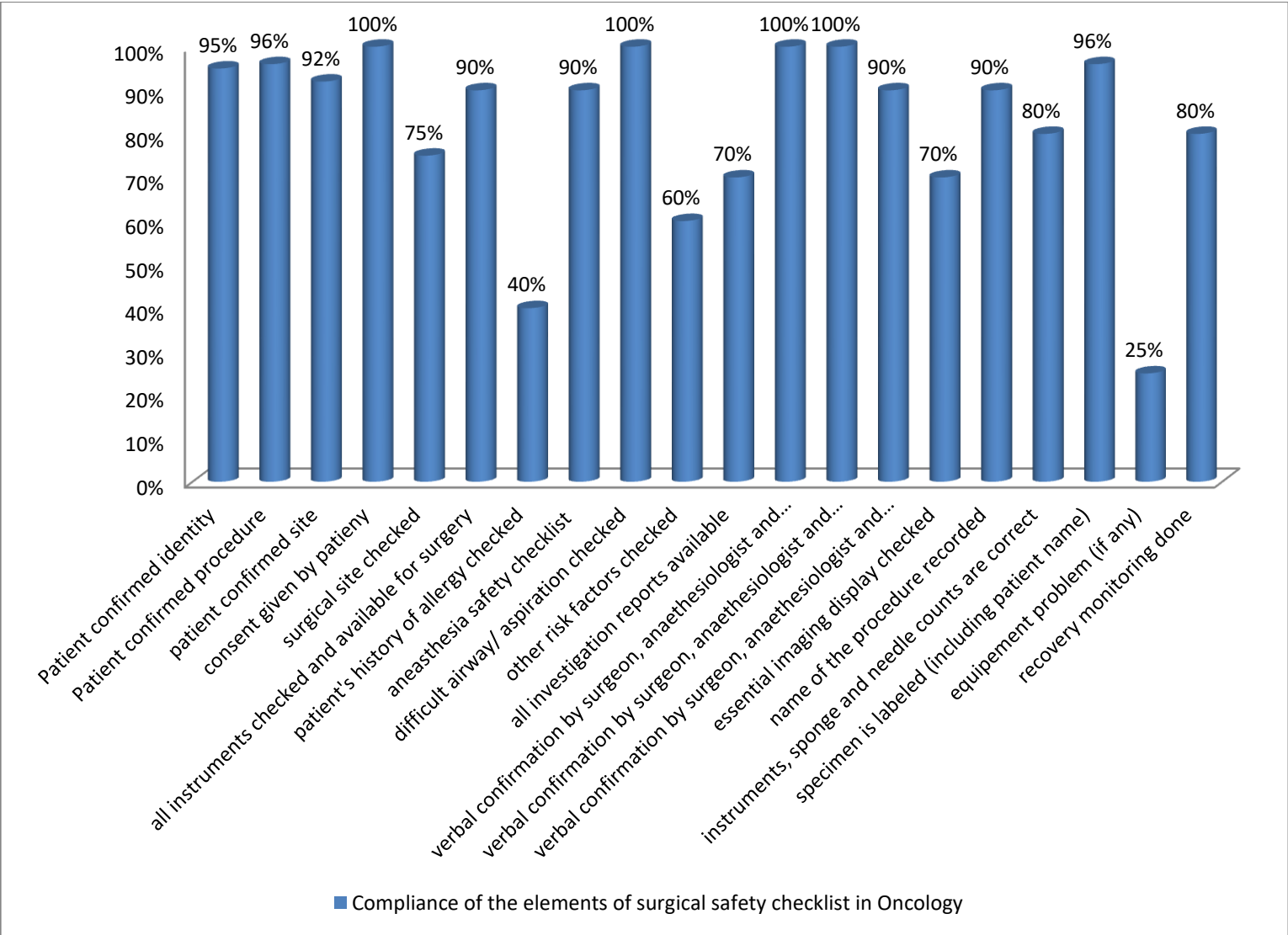
DESCRIPTION On observing the above data, it is seen that few elements out of 6 cases of Neuro surgeries have 100% compliance such as patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, all investigation reports available, anaesthesia safety checked, verbal confirmation by surgeon, anaesthesiologist and nurse about procedure, instruments, sponge and needle counts are correct. There is 80% – 85 % compliance seen with surgical site checked, patient history of allergy checked, and verbal confirmation by surgeon, anaesthesiologist and nurse about site and recovery monitoring done. There is 70% compliance seen with difficult airway/ aspiration checked. There is 60% compliance seen with other risk factors checked and name of the procedure recorded. There is 50% compliance seen with equipment problem (if any) and essential imaging display checked is found with compliance of 48%.

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN CARDIO SURGERIES**



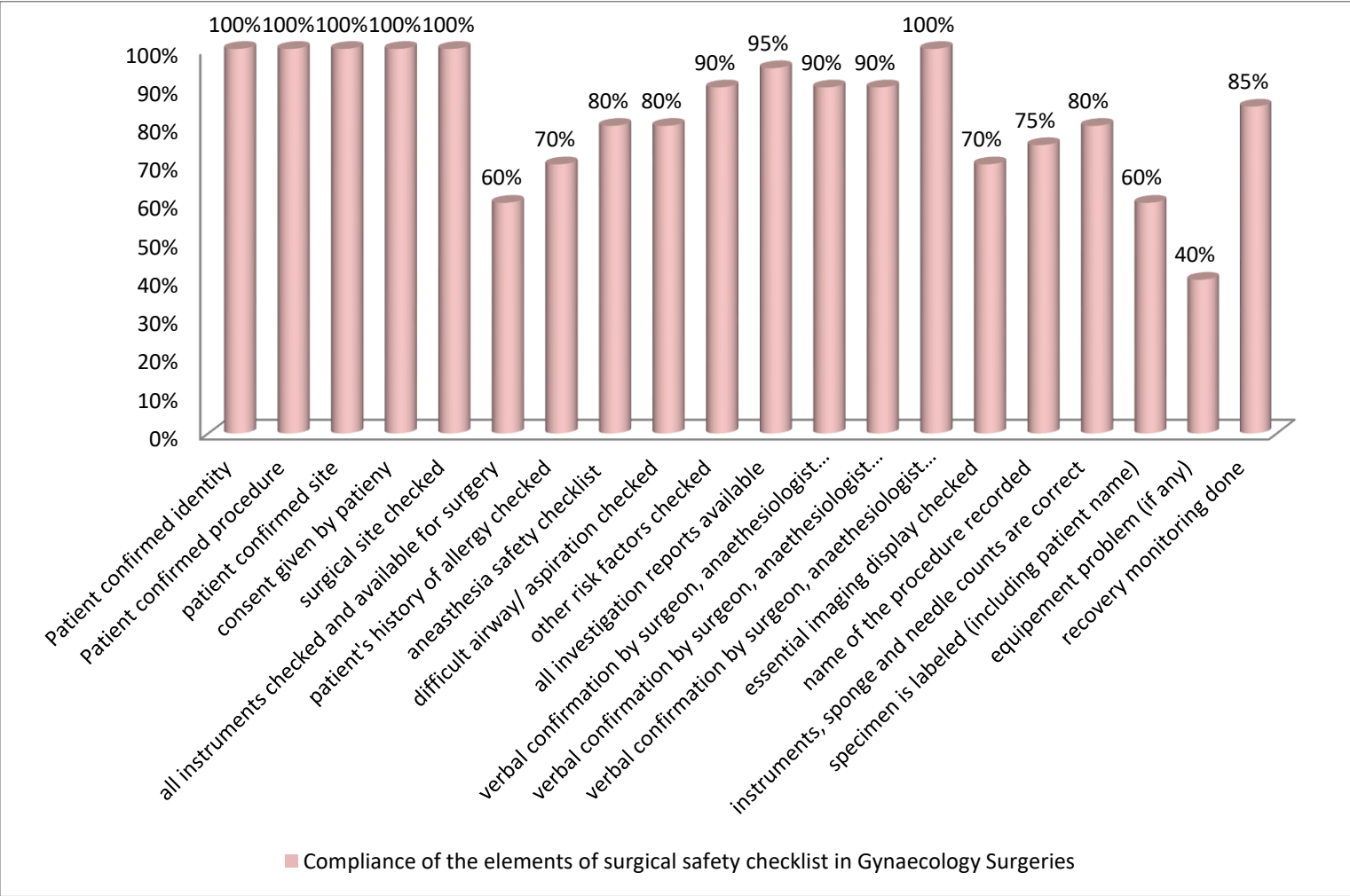
DESCRIPTION On observing the above data, it is seen that few elements out of 10 cases of Cardio surgeries have 100% compliance such as patient confirmed identity, procedure, site and consent, surgical site checked, all instruments checked and available for surgery, all investigation reports available, anaesthesia safety checked, patient history of allergy checked, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, instruments, sponge and needle counts are correct, essential imaging display checked, name of procedure recorded checked, recovery monitoring done. There is 60% - 70% compliance seen with other risk factors checked, all investigation reports available. There is 50% compliance seen with difficult airway/ aspiration checked and a compliance of 43% is seen with equipment problem (if any).

❖ COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN ONCOLOGY



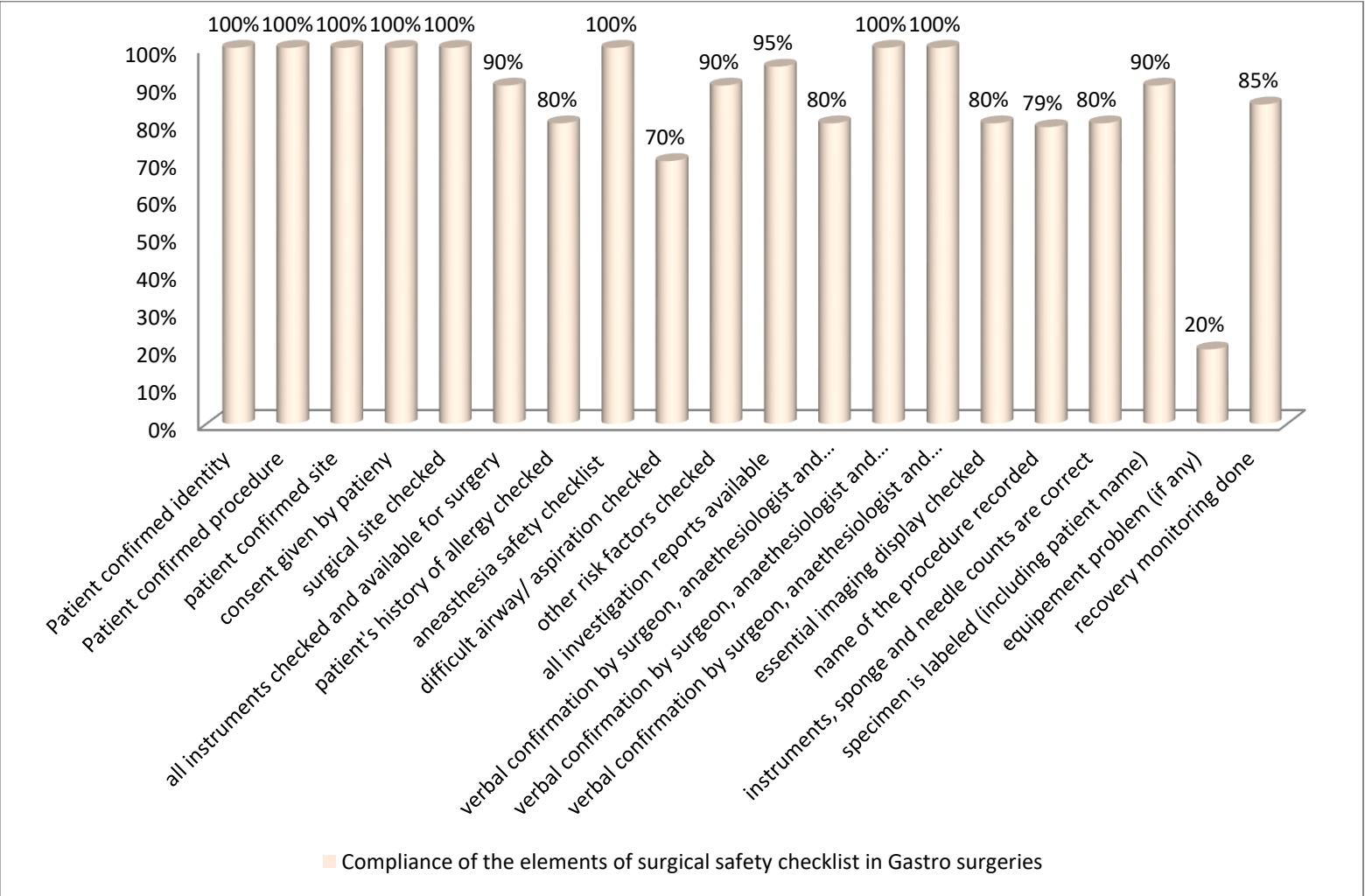
DESCRIPTION On observing the above data, it is seen that few elements out of 4 cases of Oncology surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, anaesthesia safety checked, difficult airway/ aspiration checked, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, instruments, sponge and needle counts are correct, name of procedure recorded checked, recovery monitoring done. There is 60% - 70% compliance seen with other risk factors checked, all investigation reports available. There is 40% compliance seen with patient history of allergy checked and a compliance of 25% is seen with equipment problem (if any).

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN GYNAECOLOGY SURGERIES**



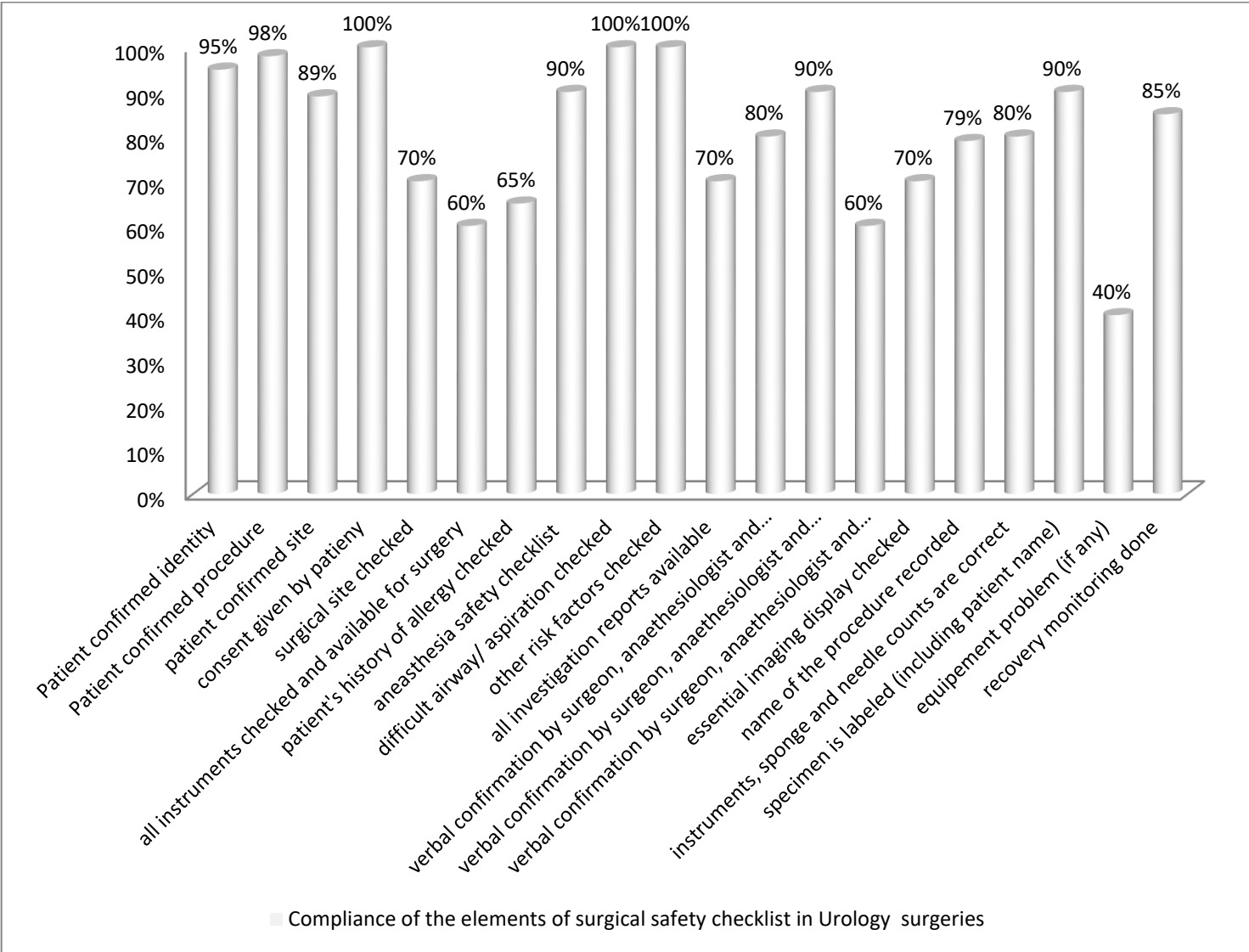
DESCRIPTION On observing the above data, it is seen that few elements out of 11 cases of Gynaecology surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, anaesthesia safety checked, difficult airway/ aspiration checked, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, other risk factors checked, all investigation reports available checked, instruments, sponge and needle counts are correct, name of procedure recorded checked, recovery monitoring done. There is 70% - 75% compliance seen with patient's history of allergy checked, essential imaging display checked and name of the procedure recorded. There is 60% compliance seen with all instruments checked and available for surgery, specimen is labelled checked and a compliance of 40% is seen with equipment problem (if any).

❖ COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN GASTRO SURGERIES



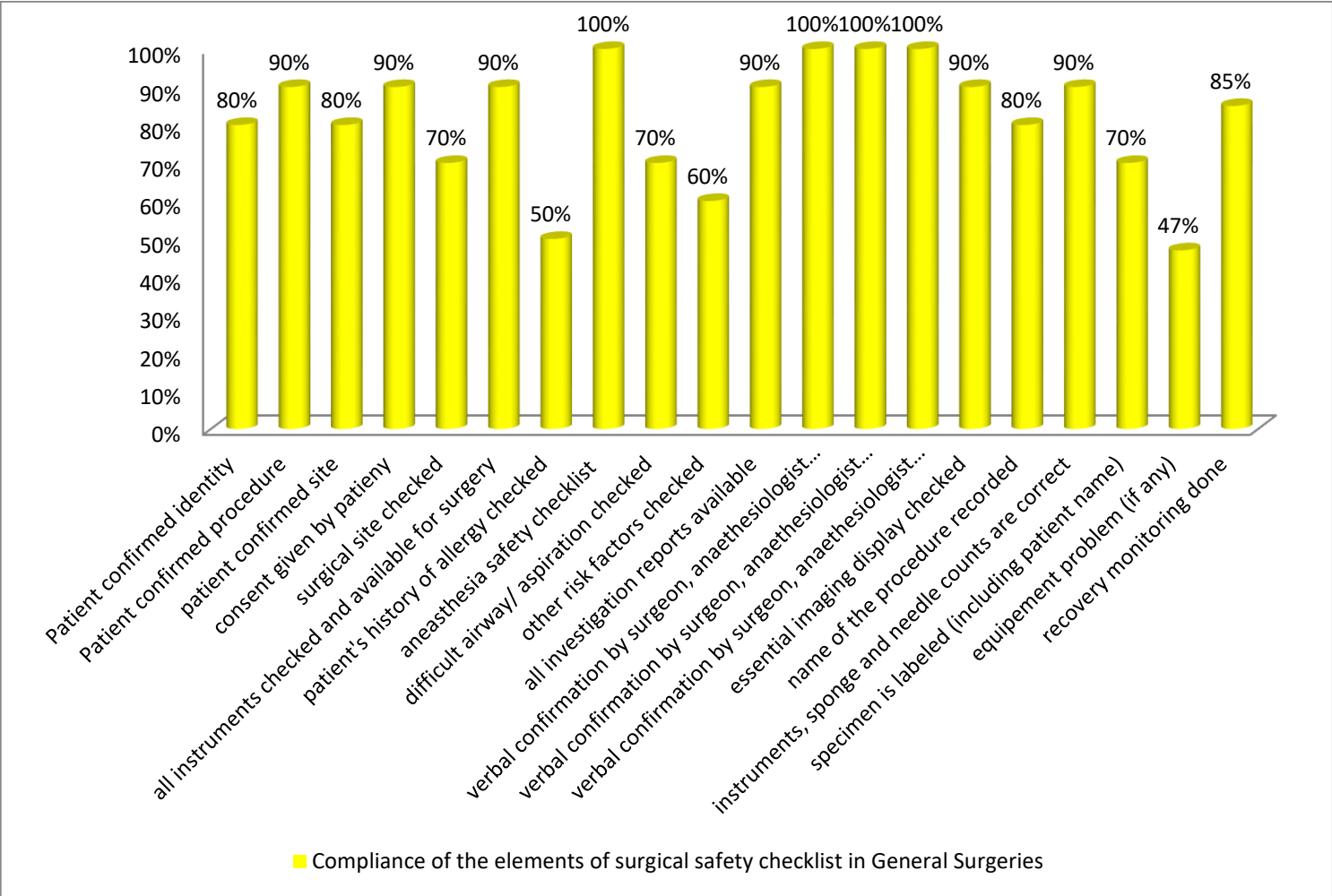
DESCRIPTION On observing the above data, it is seen that almost all elements out of 15 cases of Gastro surgeries have 100% compliance. We have seen least compliance in equipment problem (if any) which is 20%.

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN UROLOGY SURGERIES**



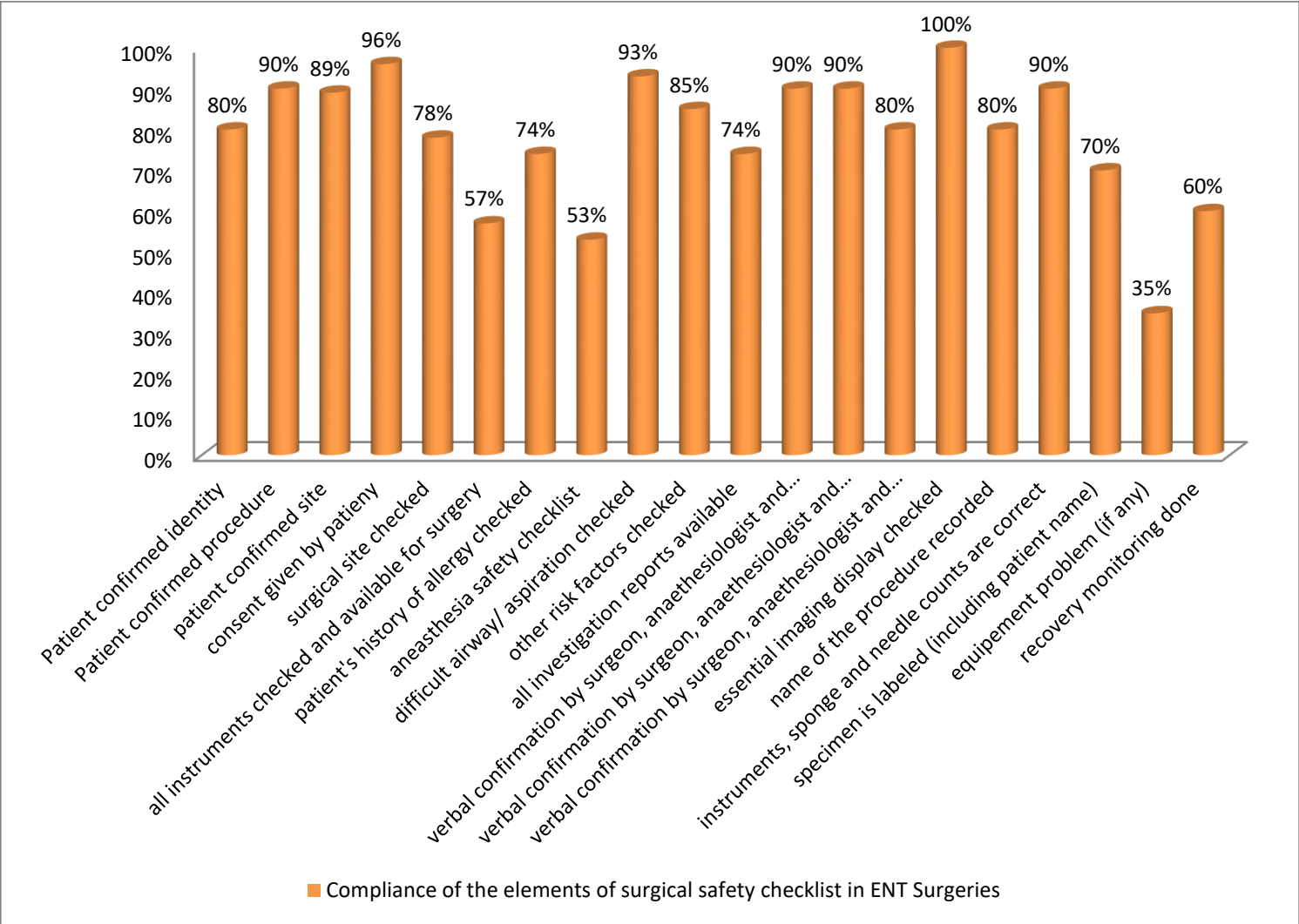
DESCRIPTION On observing the above data, it is seen that few elements out of 12 cases of Urological surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, anaesthesia safety checked, difficult airway/ aspiration checked, other risk factors checked, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site, instruments, sponge and needle counts are correct, name of procedure recorded checked, specimen is labelled checked, recovery monitoring done. There is 60% - 70% compliance seen with surgical safety checked, patient history checked, all instruments checked and available for surgery, essential imaging display checked. There is 40% compliance seen with equipment problem (if any).

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN GENERAL SURGERIES**



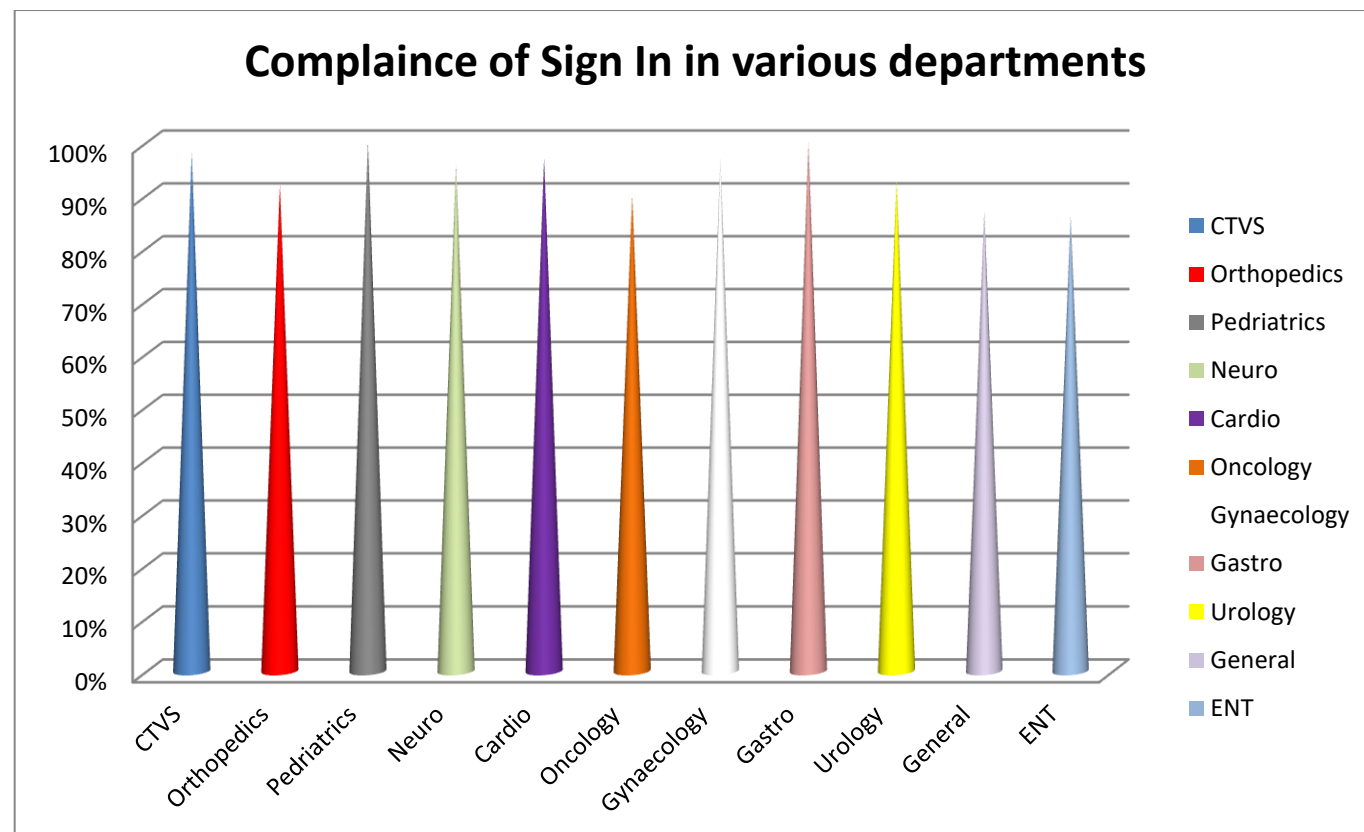
DESCRIPTION On observing the above data, it is seen that few elements out of 8 cases of General surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, anaesthesia safety checked, all instruments checked and available for surgery, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, name of procedure recorded checked, essential imaging display recorded, recovery monitoring done. There is 60% - 70% compliance seen with surgical safety checked, difficult airway/ aspiration checked, other risk factors, instruments, sponge and needle counts are correct. There is 50% compliance seen with patient history of allergy checked and the equipment problem (if any) shows 47% of compliance.

❖ **COMPLIANCE OF ELEMENTS OF SURGICAL SAFETY CHECKLIST IN ENT SURGERIES**



DESCRIPTION On observing the above data, it is seen that few elements out of 5cases of ENT surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, verbal confirmation by surgeon, anaesthesiologist and nurse about patient, site and procedure, difficult airway/ aspiration checked, other risk factors, instruments, sponge and needle counts are correct, name of procedure recorded checked, essential imaging display recorded. There is 60% - 80% compliance seen with surgical safety checked, patient history of allergy checked, all investigation reports available, specimen is labelled checked, recovery monitoring done. There is 53% compliance seen with anaesthesia safety checklist checked and the equipment problem (if any) shows 35% of compliance.

COMPLAINE OF SIGN – IN IN VARIOUS DEPARTMENTS OF OT

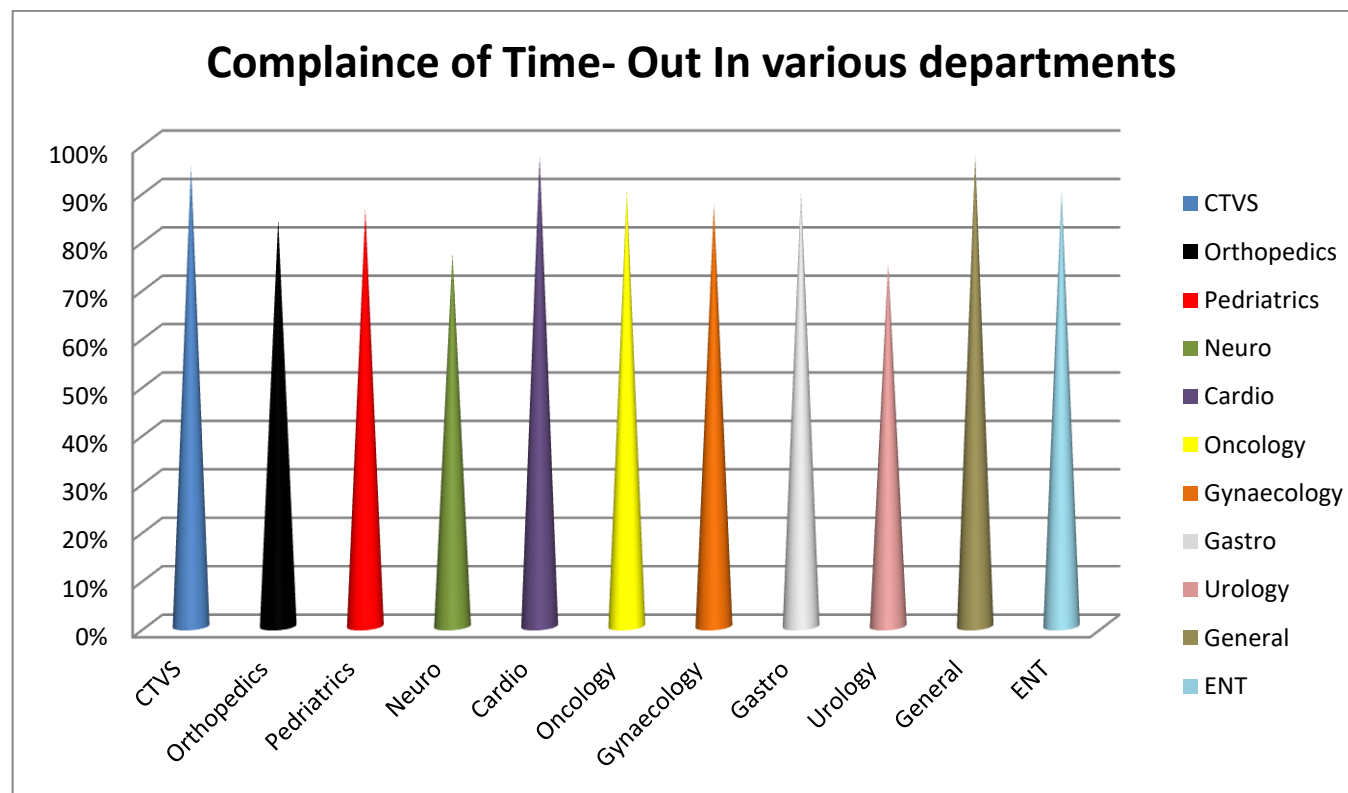


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Sign In in the various departments of OT in Ivy Hospital, Mohali is 94%. 100% compliance is seen in CTVS, Paediatric, Neuro , cardio, oncology, gynaecology, gastro, urology, orthopaedics departments.

Minimum compliance in Sign In is seen in ENT department which is 86% and General Surgery's department which is 87%.

Overall, from the above graph it can be interpreted that ENT and General surgery department need to work regarding the sign in of surgical safety checklist to make sure to avoid complications during surgical procedure.

COMPLAINE OF TIME – OUT IN VARIOUS DEPARTMENTS OF OT

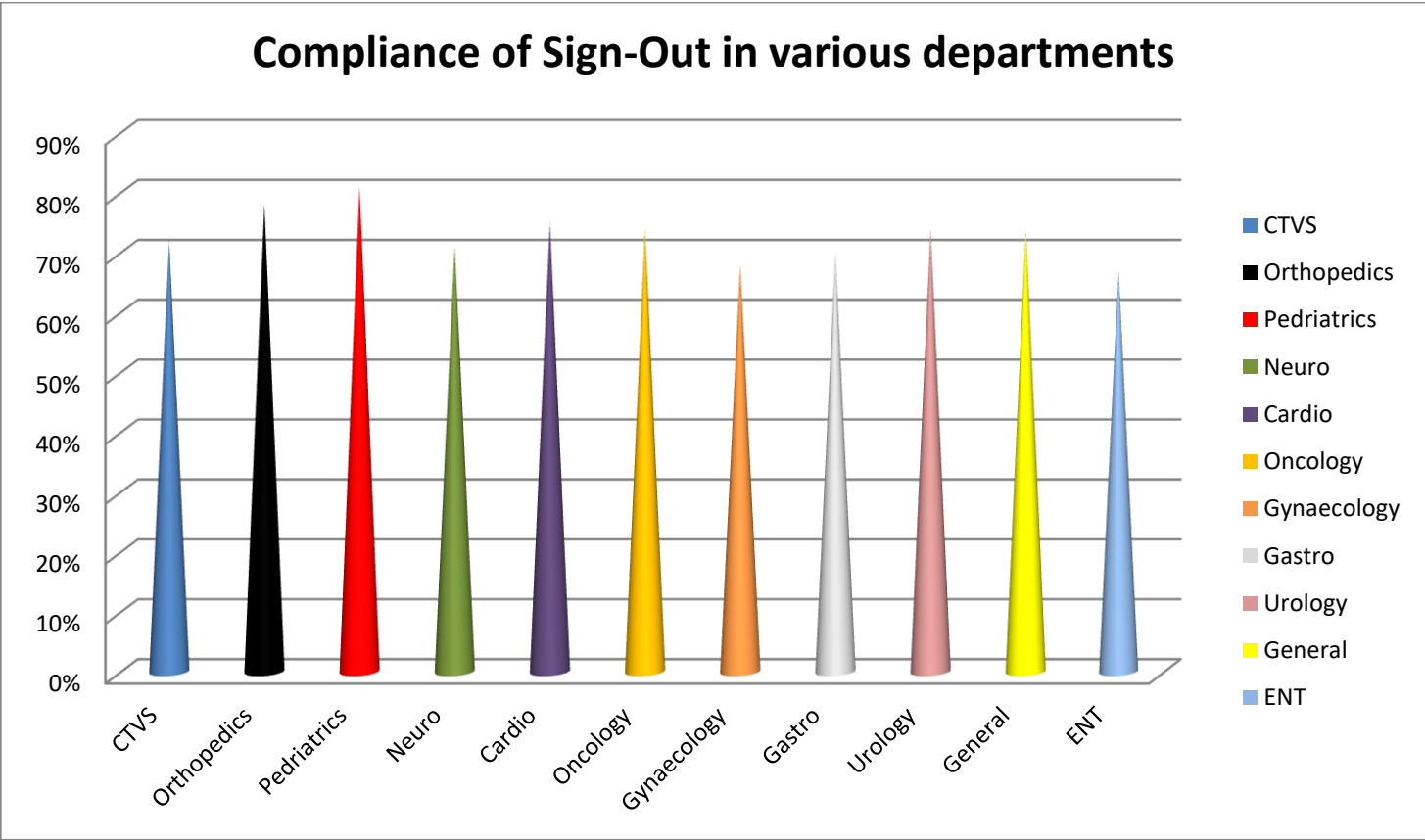


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Time Out in the various departments of OT in Ivy Hospital, Mohali is 88%. 100% compliance is seen in CTVS, Paediatric, cardio, oncology, gynaecology, gastro, urology, orthopaedics departments.

Minimum compliance in Time Out is seen in Urology department which is 75% and Neuro department which is 77%.

Overall, from the above graph it can be interpreted that Urology and Neuro department need to work regarding the sign in of surgical safety checklist to make sure to avoid complications during surgical procedure.

➤ COMPLAINE OF SIGN – OUT IN VARIOUS DEPARTMENTS OF OT

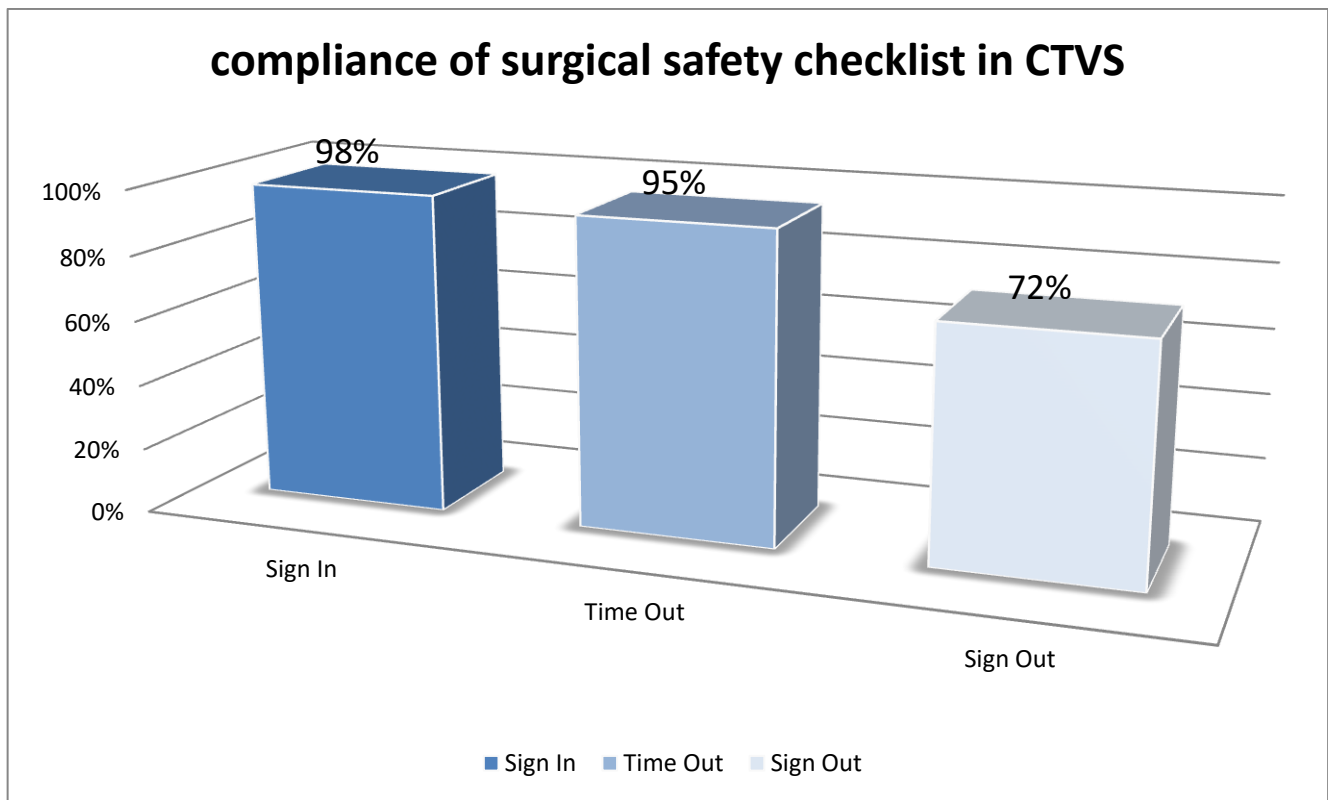


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Sign Out in the various departments of OT in Ivy Hospital, Mohali is 73%. Maximum compliance seen is 81% with paediatric department.

Minimum compliance in Sign Out is seen in ENT department which is 67%.

Overall, from the above graph it can be interpreted that much attention is needed in ENT and Gynaecology department regarding the compliance of Sign out of surgical safety checklist. It is also interpreted that compliance of Sign out in various departments of OTs is less as compared to Sign in and Time out .

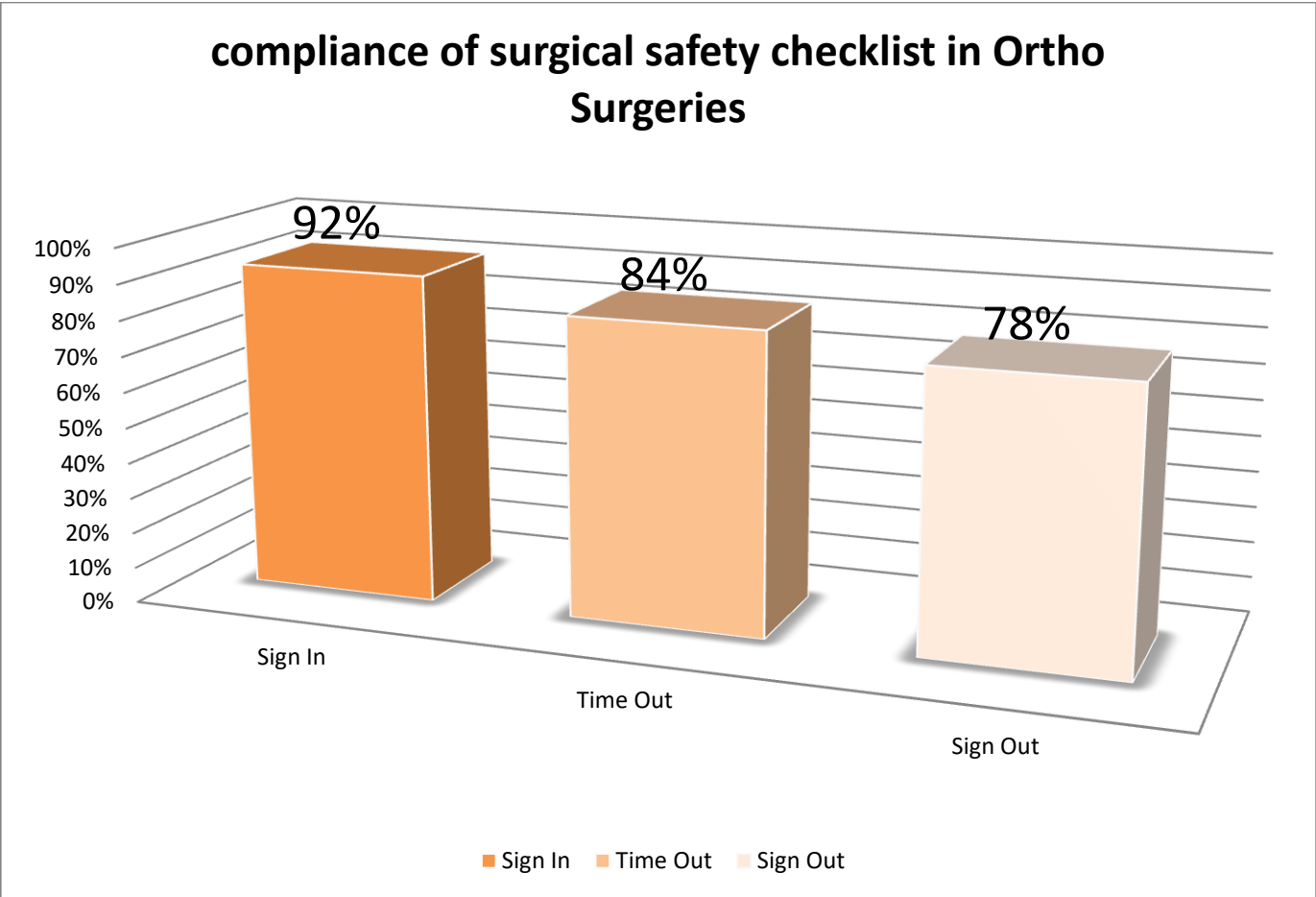
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN CTVS**



DESCRIPTION On observing the above graphical data of CTVS, it is evident that out of 12 surgical procedures, compliance of Sign In of surgical safety checklist in CTVS is 98%, Time Out of surgical safety checklist in CTVS is 95% and Sign Out of surgical safety checklist in CTVS is 72%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in CTVS.

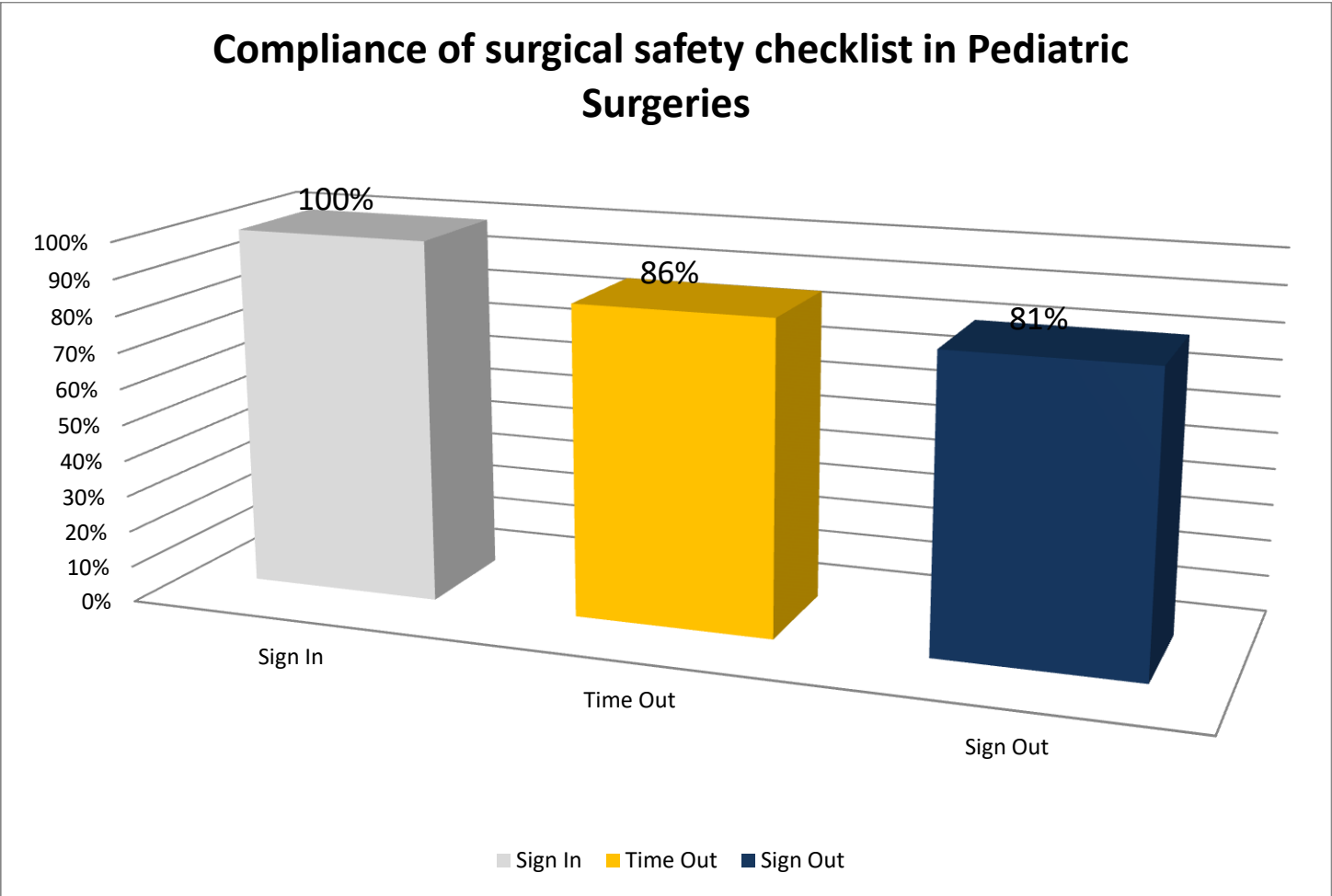
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN ORTHO SURGERIES**



DESCRIPTION On observing the above graphical data of Orthopaedic surgeries, it is evident that out of 12 surgical procedures, compliance of Sign In of surgical safety checklist in Orthopaedic surgeries is 92%, Time Out of surgical safety checklist in Orthopaedic surgeries is 84% and Sign Out of surgical safety checklist in Orthopaedic surgeries is 78%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Orthopaedic surgeries.

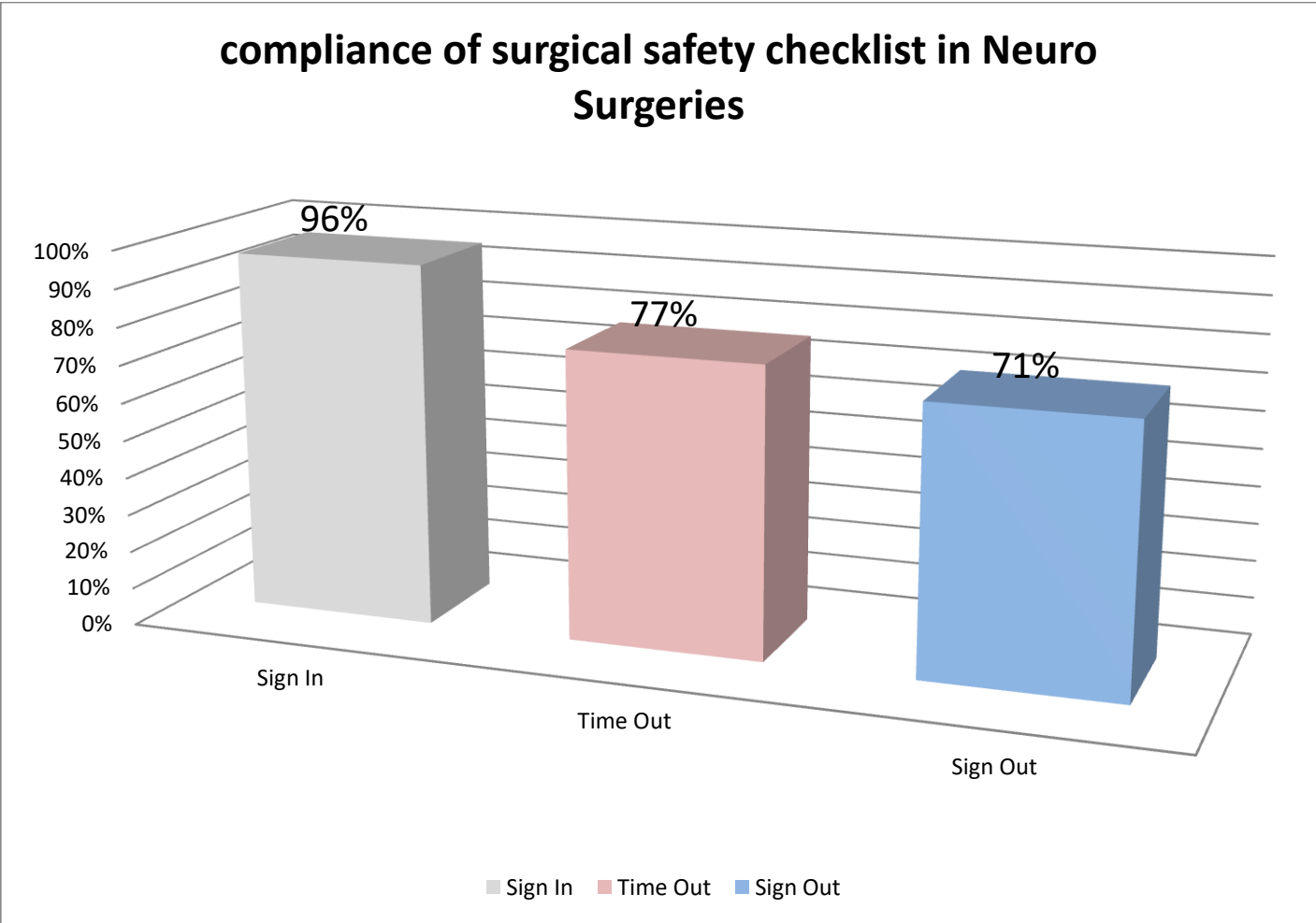
▪ COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN PEDIATRIC SURGERIES



DESCRIPTION On observing the above graphical data of Paediatric surgeries , it is evident that out of 5 surgical procedures, compliance of Sign In of surgical safety checklist in Paediatric surgeries is 100%, Time Out of surgical safety checklist in Paediatric surgeries is 86% and Sign Out of surgical safety checklist in Paediatric surgeries is 81%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Paediatric surgeries.

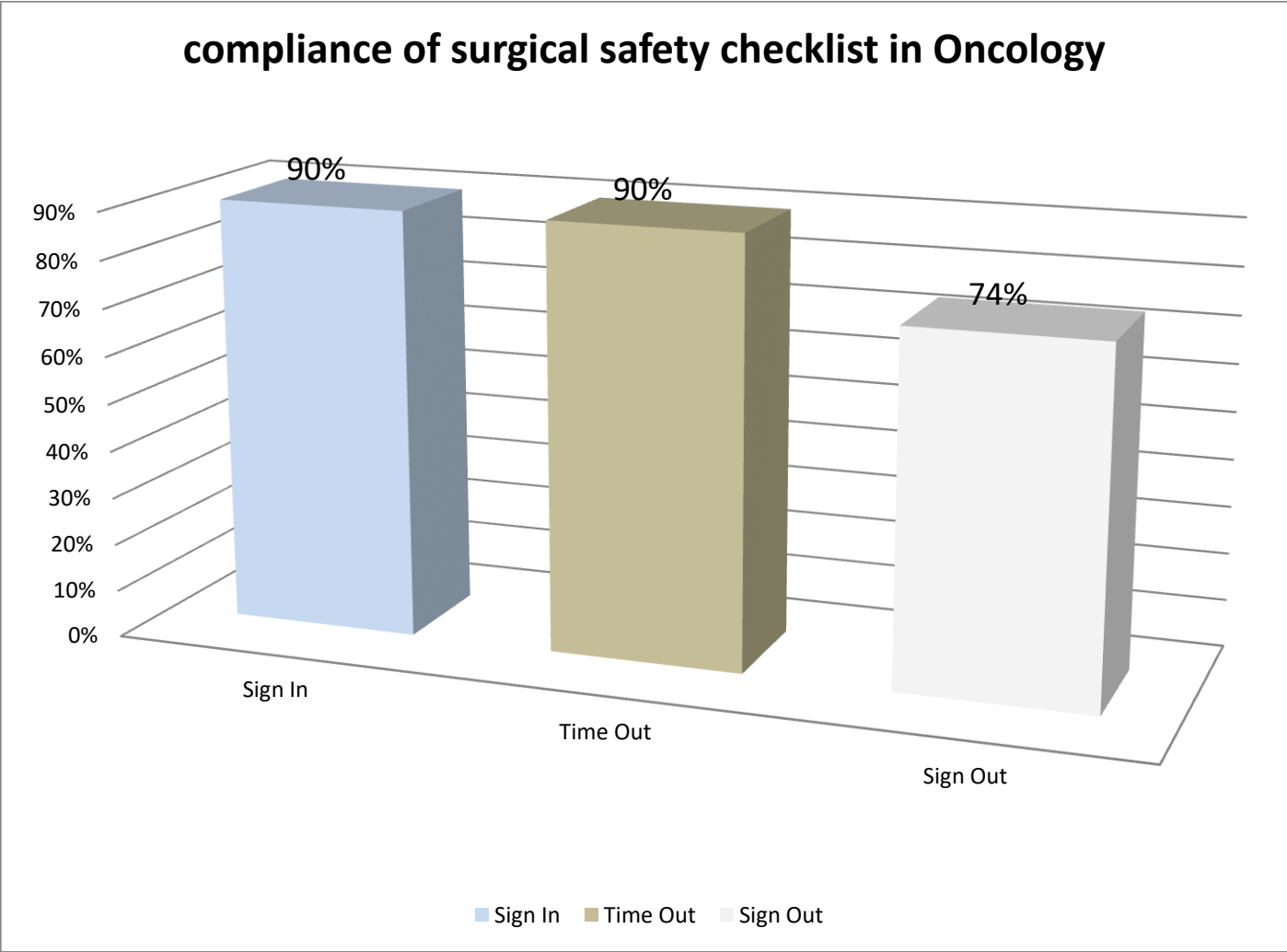
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN NEURO SURGERIES**



DESCRIPTION On observing the above graphical data of Neuro surgeries , it is evident that out of 6 surgical procedures, compliance of Sign In of surgical safety checklist in Neuro surgeries is 96%, Time Out of surgical safety checklist in Neuro surgeries is 77% and Sign Out of surgical safety checklist in Neuro surgeries is 71%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Neuro surgeries.

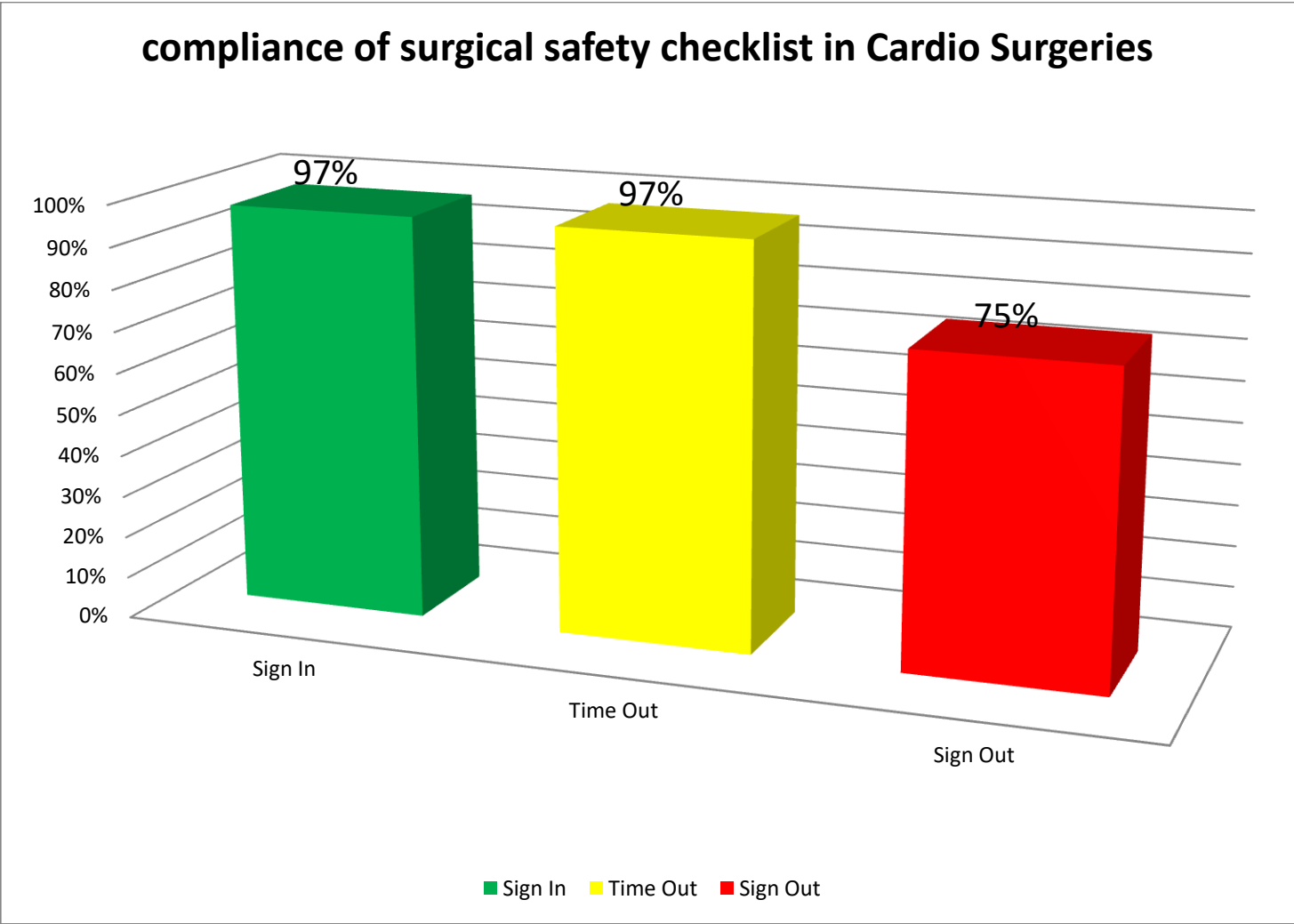
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN ONCOLOGY**



DESCRIPTION On observing the above graphical data of Oncology surgeries , it is evident that out of 4 surgical procedures, compliance of Sign In of surgical safety checklist in Oncology surgeries is 90%, Time Out of surgical safety checklist in Oncology surgeries is 90% and Sign Out of surgical safety checklist in Oncology surgeries is 74%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Oncology surgeries.

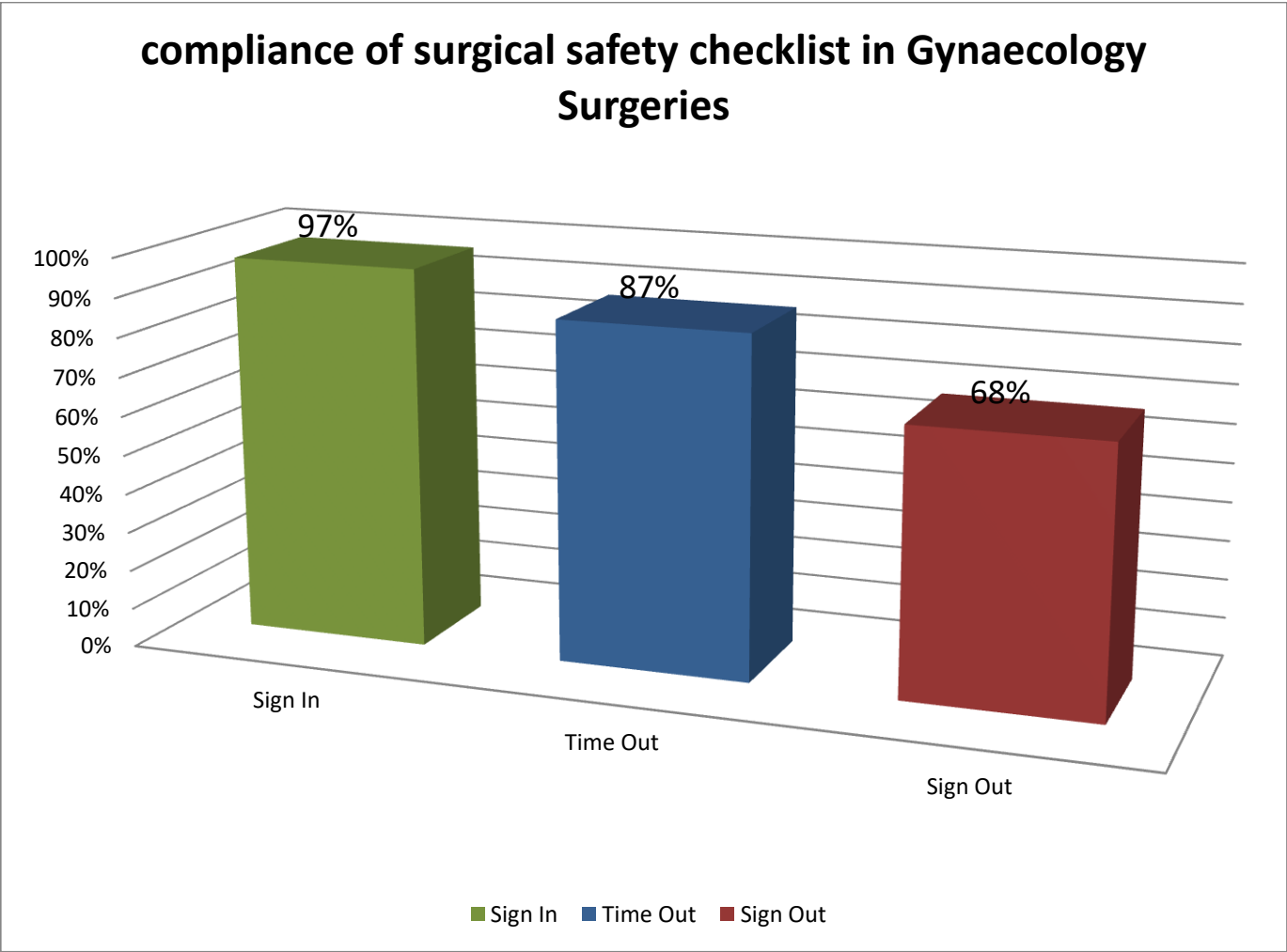
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN CARDIO SURGERIES**



DESCRIPTION On observing the above graphical data of Cardio surgeries , it is evident that out of 10 surgical procedures, compliance of Sign In of surgical safety checklist in Cardio surgeries is 97%, Time Out of surgical safety checklist in Cardio surgeries is 97% and Sign Out of surgical safety checklist in Cardio surgeries is 75%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Cardio surgeries.

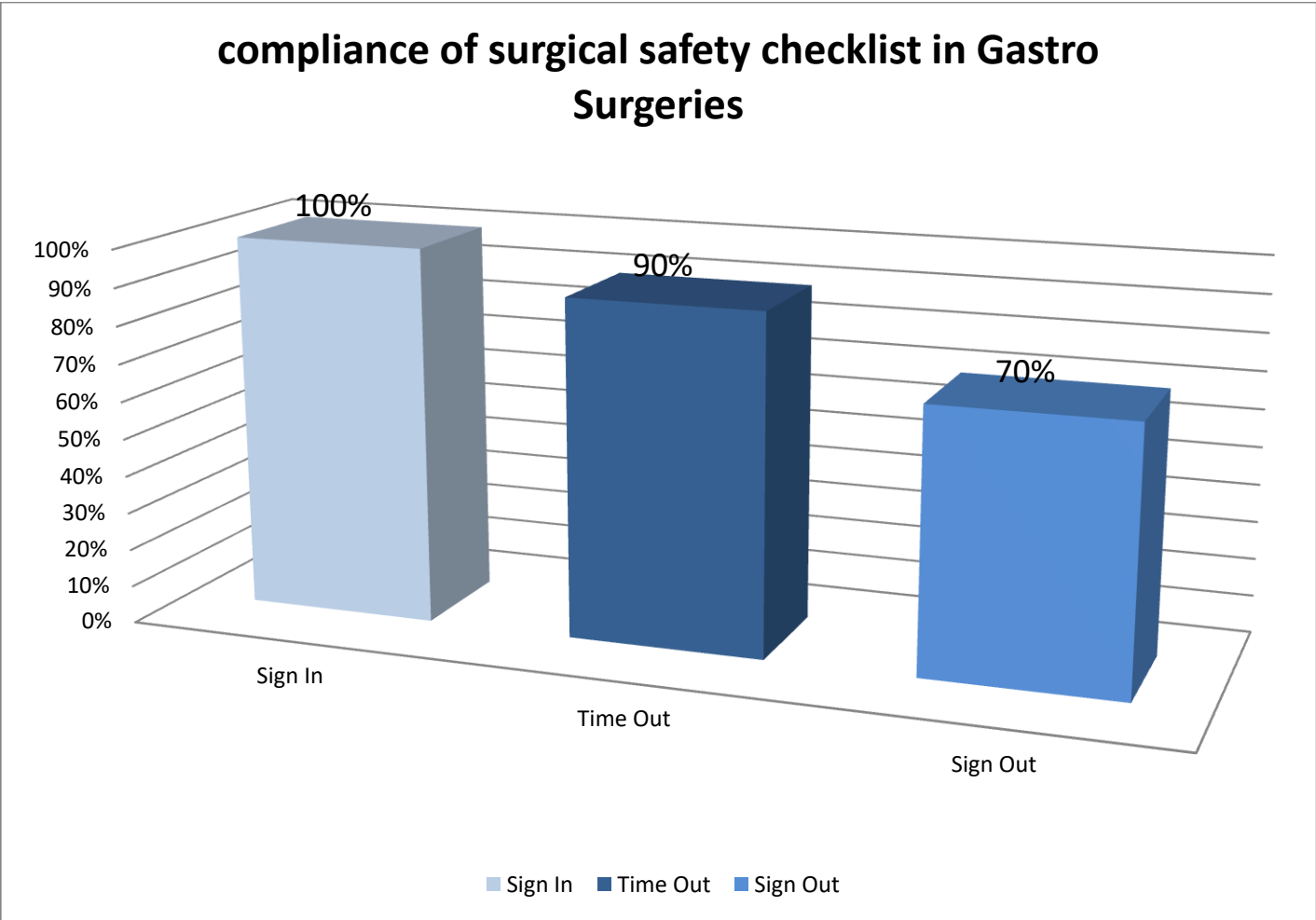
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN GYNAECOLOGY SURGERIES**



DESCRIPTION On observing the above graphical data of Gynaecology surgeries , it is evident that out of 11 surgical procedures, compliance of Sign In of surgical safety checklist in Gynaecology surgeries is 97%, Time Out of surgical safety checklist in Gynaecology surgeries is 87% and Sign Out of surgical safety checklist in Gynaecology surgeries is 58%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Gynaecology surgeries.

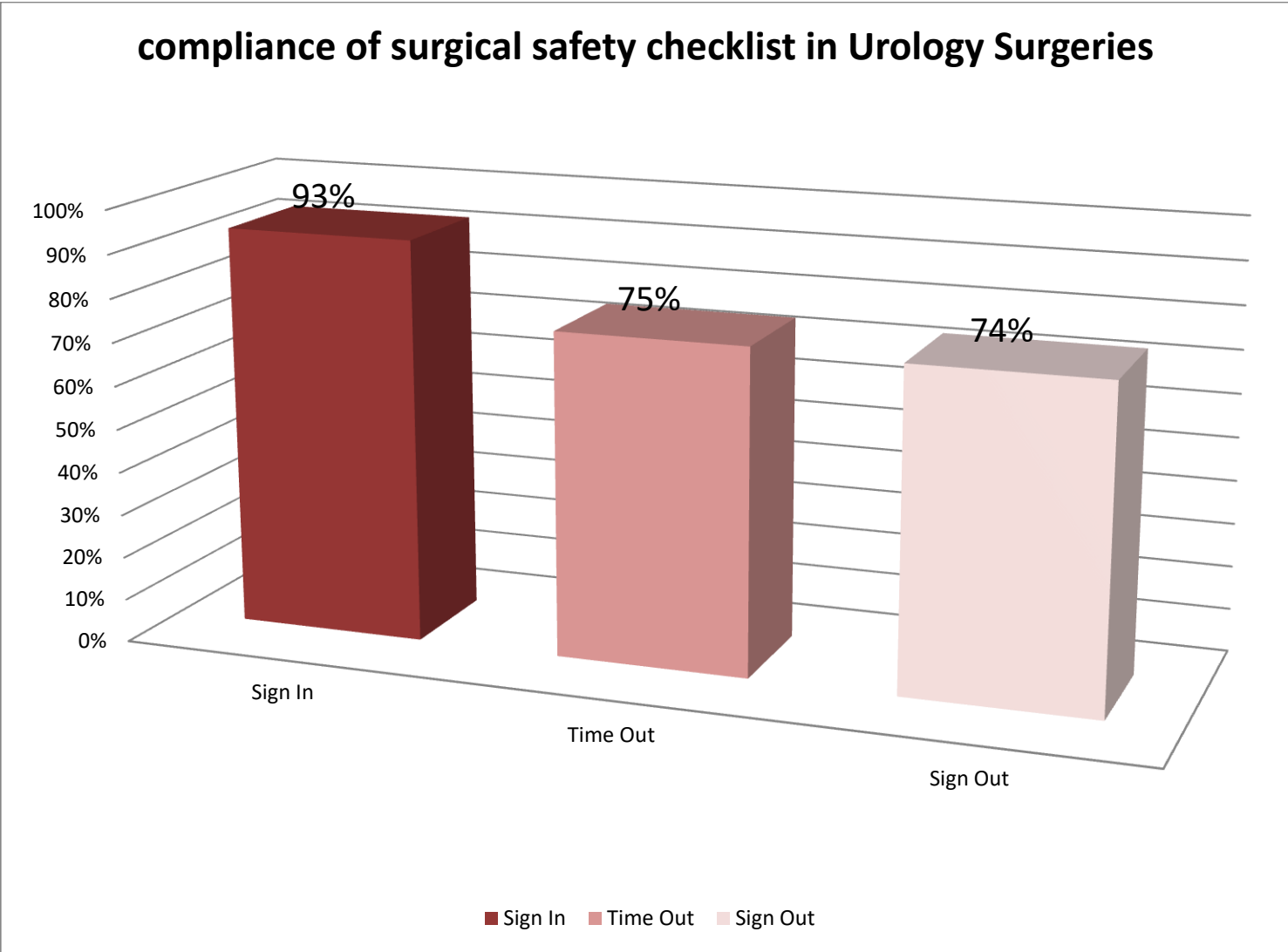
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN GASTRO SURGERIES**



DESCRIPTION On observing the above graphical data of Gastro surgeries , it is evident that out of 15 surgical procedures, compliance of Sign In of surgical safety checklist in Gastro surgeries is 100%, Time Out of surgical safety checklist in Gastro surgeries is 90%and Sign Out of surgical safety checklist in Gastro surgeries is 70%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Gastro surgeries.

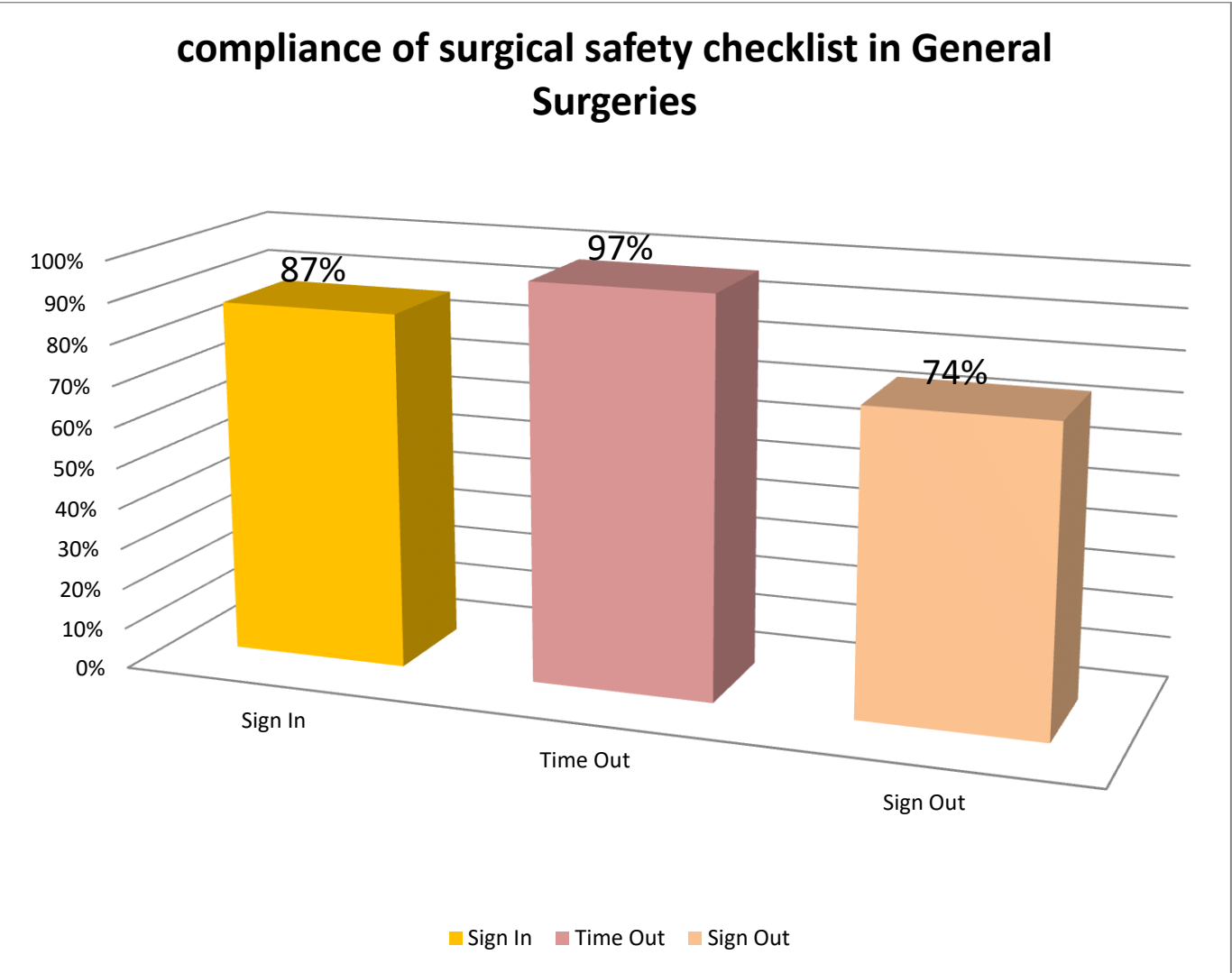
▪ COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN UROLOGY SURGERIES



DESCRIPTION On observing the above graphical data of Urology surgeries , it is evident that out of 12 surgical procedures, compliance of Sign In of surgical safety checklist in General surgeries is 93%, Time Out of surgical safety checklist in General surgeries is 75% and Sign Out of surgical safety checklist in General surgeries is 74%.

Overall, it shows that much attention need to be given on Time Out and Sign Out of surgical safety checklist in General surgeries.

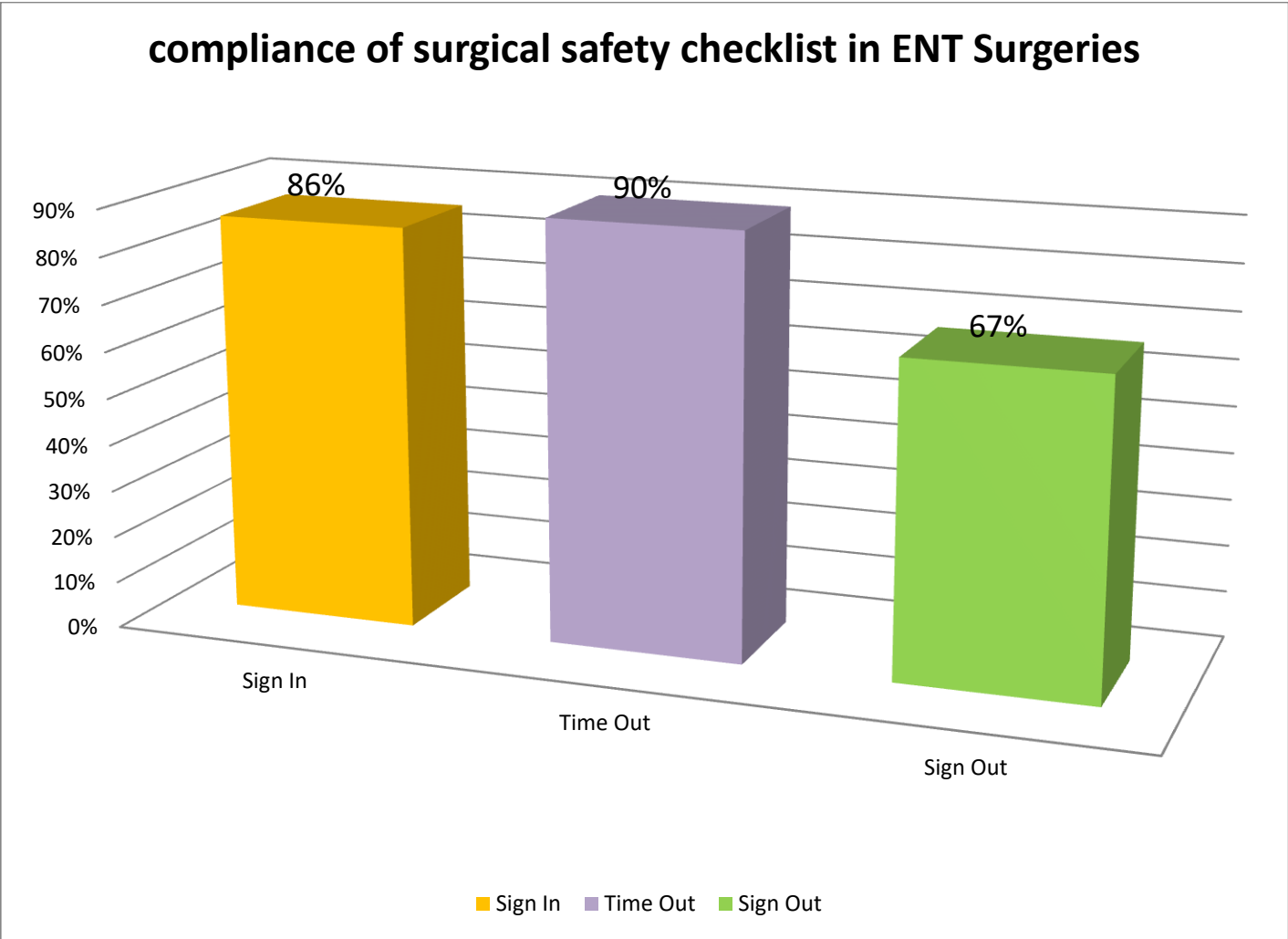
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN GENERAL SURGERIES**



DESCRIPTION On observing the above graphical data of General surgeries , it is evident that out of 8 surgical procedures, compliance of Sign In of surgical safety checklist in General surgeries is 87%Time Out of surgical safety checklist in General surgeries is 97% and Sign Out of surgical safety checklist in General surgeries is 74%.

Overall, it shows that much attention needs to be given on Sign Out of surgical safety checklist in General surgeries.

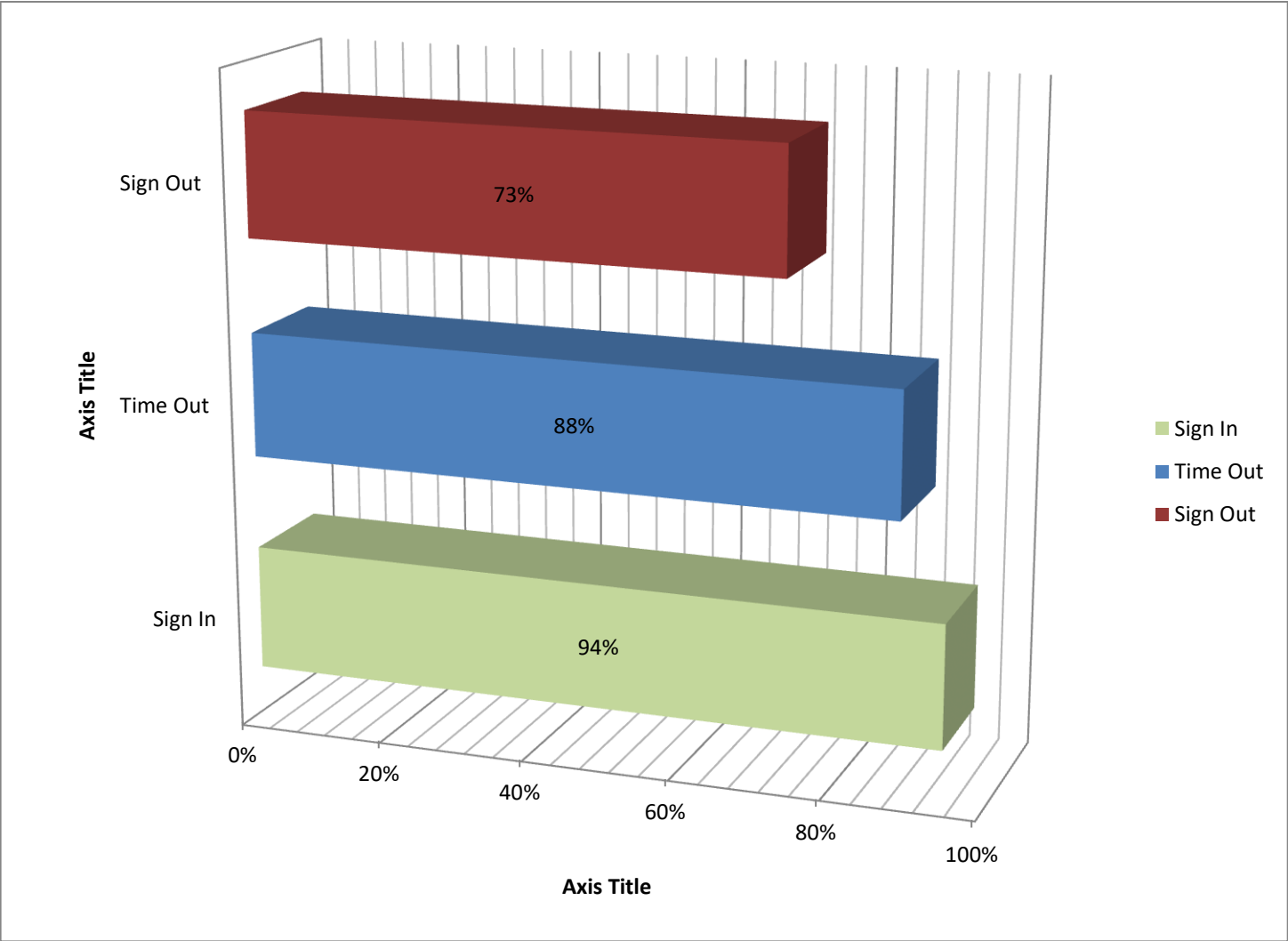
▪ **COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN ENT SURGERIES**



DESCRIPTION On observing the above graphical data of ENT surgeries , it is evident that out of 5 surgical procedures, compliance of Sign In of surgical safety checklist in ENT surgeries is 86%, Time Out of surgical safety checklist in ENT surgeries is 90% and Sign Out of surgical safety checklist in ENT surgeries is 67%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in ENT surgeries.

**COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN
OTs OF IVY HOSPITAL, MOHALI**



DESCRIPTION On observing the above graphical data of Surgical Safety Checklist in OTs of Ivy Hospital, Mohali, it is evident that compliance of Sign In of surgical safety checklist is 94%, Time Out of surgical safety checklist is 88% and Sign Out of surgical safety checklist is 73%.

Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist.

SUGGESTIONS AND RECOMMENDATIONS

- ❖ Each and every individual working in the operating area from the nursing staff to the doctors as well as the technicians in the operation theatre must be very well aware about this checklist and the important significance of its each element.
- ❖ On observing the compliance of elements of surgical safety checklist in various OTs , least compliance is seen in ENT department so it is recommended to focus on various elements in ENT department seriously.
- ❖ All the departments of OT need to focus on the element “equipment problem (if any)” to prevent any problem during surgery.
- ❖ The departments like oncology and general surgeries need to focus on patient’s history of allergy check to avoid any health related complication during and after surgical procedure
- ❖ Sign – In of surgical safety checklist of most of departments of OT is proper and completely fine but ENT and general surgery department need to be focused more in terms to avoid complications.
- ❖ Regular checks of the equipment machines and lead aprons are required to ensure the Patient Safety as well as surgical team safety.
- ❖ Proper training should be conducted for the awareness and enhancement of skills and knowledge of the surgical team members.
- ❖ The awareness among team members about the importance of count of Needles, gauze pieces and instrument is needed.
- ❖ The departments like ENT and Urology need to be taken care more in order to maintain standards of quality due to high work load.
- ❖ There should be a proper monitoring done during the Time – Out and Sign – Out, and important gaps need to be checked which are usually missed during the audit.
- ❖ Supplementary training and attention to actual checklist used to improve communication.
- ❖ It is very useful to record the proper checklist information, such as the accurate time of Sign In, Time Out, and Sign out and team member’s name and role on a board in operation theatre for reference during the procedure.

ETHICAL CONSIDERATIONS

As per the security consideration the information of a patient has kept private. The data of all the surgical procedures have been submitted to the hospital after the completion of the study and was not shared by any third party. The data used for the study was first analyzed by the hospital mentor. After their concern and permission, the data was taken in use for the report of summer training project.

CONCLUSION

The conclusion is based on summer training internship report done in Ivy Hospital, Mohali. The safety of patient is huge responsibility of the hospital. The main goal of surgical safety checklist given by WHO is to ensure correct site, correct procedure, correct patient surgery in the operation theatre. This surgical safety checklist is a very good tool to keep a check on all the required protocols to be followed during the surgery of the patient. The compliance of surgical safety checklist in Ivy Hospital, Mohali is 85%. The compliance in communication of critical events during the Time Out and the key concern during Sign Out is not as effective as it should be and hence need improvement whereas the Sign In compliance is comparatively great. In spite of drives by significant wellbeing associations to work on careful security there is still work to be done to guarantee that occasions, for example, wrong site a medical procedure at this point don't happen. Execution of such conventions has worked on understanding wellbeing and overall is seen well by working room staff. the careful colleagues are given preparing and learning class to comprehend the significance of careful wellbeing agenda for safe surgeries. In this way, the quality is kept up with by giving better persistent wellbeing administrations in the working room.

REFERENCES

- ✚ “WHO/ WHO surgical safety checklist and implantation manual”.
✚ <http://www.who.int/>
✚ . <https://www.psnet.ahrq.gov/primer.aspx?primerID=5>
✚ http://apps.who.int/iris/bitstream/10665/44186/2/9789241598590_eng_Checklist.pdf
✚ World Health Organization. Safe Surgery Saves Lives The Second Global Patient Safety Challenge. 2012. [Cited 5 May 2012.]
URL: <http://www.who.int/patientsafety/safesurgery/en/>
- ✚ Public Health Resource Unit. 10 questions to help you make sense of qualitative research. 2006. [Cited 26 Mar 2012.]
URL: <http://www.sph.nhs.uk/sph-files/casp-appraisaltools/Qualitative%20Appraisal%20Tool.pdf/?searchterm=qualitative%20critical%20appraisal>
- ✚ Hayes AB, Weiser T, Berry W,et al. A surgical safety checklist to reduce morbidity and mortality in a global population.
N Engl J Med. 2009;360:491-9

- ✚ World health organization . WHO guidelines for safe surgery 2009. Safe surgery saves lives
<http://whglibdoc.who.int/publicatioeng.pdfns/2009/9789341598552>
- ✚ **Use of surgical safety checklist to improve team communication**
 Richard A. Cabral (September 2016)
 Cabral, R., Eggenberger, T., Keller, K., Gallison, B., & Newman, D. (2016). Use of a Surgical Safety Checklist to Improve Team Communication. *AORN Journal*, 104(3), 206-216.
<https://doi.org/10.1016/j.aorn.2016.06.019>
- ✚ BÖHMER, A., KINDERMANN, P., SCHWANKE, U., BELLENDIR, M., TINSCHMANN, T., & SCHMIDT, C. et al. (2012). Long-term effects of a perioperative safety checklist from the viewpoint of personnel. *Acta Anaesthesiologica Scandinavica*, 57(2), 150-1
<https://doi.org/10.1111/aas.12020>
- ✚ **Effects of the introduction of the “WHO” Surgical Safety Checklist on In- Hospital Mortality : A Cohort Study**
 W.A.MD, PhD; Hoff, R.G.MD, PhD; E. E. H. L.MD; Simmermacher, R .K. J. MD (January 2012)
<https://doi.org/10.1136/bmjopen-2014-005075>
- ✚ <https://doi.org/10.1136/bmjqs-2011-000094>
- ✚ <https://doi.org/10.1111/j.1749-4486.2011.02315.x>

ANNEXURE

THE CHECKLIST USED FOR THE AUDIT

(EXAMPLE)

SIGN IN : 9 A.M. (TIME)	
PRIOR TO INDUCTION OF ANAESTHESIA	
PATIENT CONFIRMED • IDENTITY • SITE • PROCEDURE • CONSENT	☒
SITE MARKED / NOT APPLICABLE	☒
ALL INSTRUMENTS & EQUIPEMENTS CHECKED AND AVAILABLE FOR SURGERY / PROCEDURE	☒
DOES PATIENT HAVE A KNOWN ALLERGY?	☒

ALL INVESTIGATION REPORTS AVAILABLE	☒
ANAESTHESIA SAFETY CHECK COMPLETED	☒
DIFFICULT AIRWAY / ASPIRATION RISK?	☒
RISK OF >500 ML BLOOD LOSS (7 ML / KG IN CHILDREN)	☒
TIME OUT : 9:55 A.M. (TIME)	
PRIOR TO SKIN INCISION	
SURGEON, ANAESTHESIOLOGIST AND NURSE VERBALLY CONFIRM PATIENT NAME : Shivi Aggarwal SITE : gall bladder stone PROCEDURE: lap cholecystectomy	☒
ESSENTIAL IMAGING DISPLAYED	☒
ANTIBIOTIC PROPHYLAXIS GIVEN IN LAST 60 MINUTES?	☒
SIGN OUT: 12 p.m. (TIME)	
PRIOR TO PATIENT LEAVING THE OPERATION ROOM	
NURSE VERBALLY CONFIRMS WITH THE TEAM: - NAME OF THE PROCEDURE RECORDED - THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT - THE SPECIMEN IS	☒ ☒
	☒
	☒
	☒

LABELED (INCLUDING PATIENT NAME) • WHETHER THERE IS ANY EQUIPEMENT PROBLEM TO BE ADRESSED • SURGEON, ANESTHESIOLOGIST AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF PATIENT	
SURGEON NAME: Dr. Srinath SIGNATURE: DATE: 26/05/2021	☒
ANESTHESIOLOGIST NAME: Dr.Sunny SIGNATURE: DATE: 26/05/2021	☒
NURSING STAFF NAME: Kulwinder Kaur SIGNATURE: DATE: 26/05/2021	☒

TOTAL SCORE: 19 FOR 19 ELEMENTS

A score of 1/ yes is given for the completion of each element of the checklist and 0/ no is given for each missing element.

THANK YOU...