SUMMER TRAINING REPORT

PRESENTED BY
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1061
MBA-HM (2020-22)

GUIDED BY
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OUR AGENDA FOR TODAY

KEY AREAS

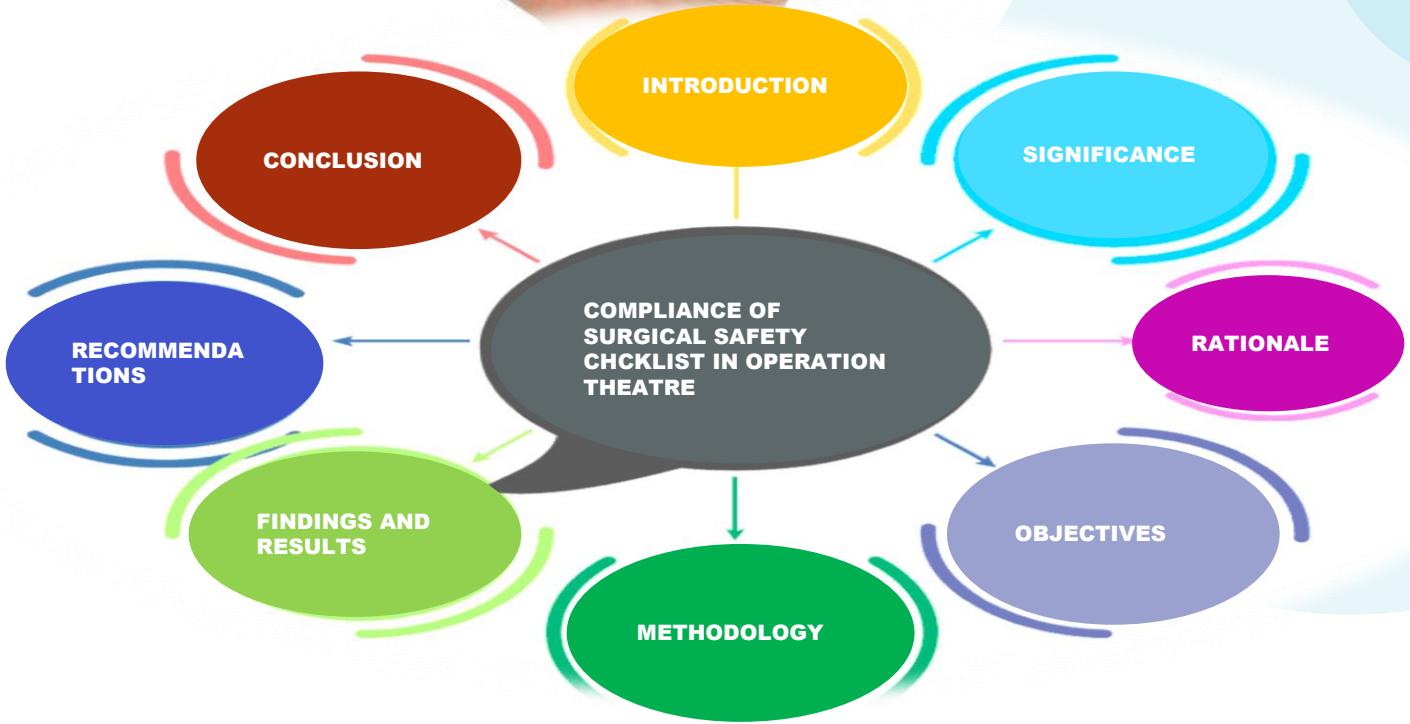
PART A (PROJECT REPORT)
COMPLIANCE OF SURGICAL SAFTEY CHECKLIST IN OPERATION THEATRE

PART B
OBSERVATIONAL LEARNING OF THE ORGANIZATION

PART A

COMPLIANCE OF SURGICAL SAFETY CHECKLIST IN OPERATION THEATRE

CONTENT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COMPLIANCE OF SURGICAL SAFETY CHCKLIST IN OPERATION THEATRE

Introduction

This project is based on WHO's "Safe Surgery Saves Lives" initiative. For the purpose of this initiative, WHO brought together a group of healthcare practitioners to discuss and find solutions to an arduous task of reducing the complications arising out of unsafe surgeries and occurrence of adverse events e.g. procedures done incorrectly in various departments of hospital.

Surgical Safety Checklist was launched by WHO in June 2008, with substantial input from UK clinicians as a gambit aimed to improve patients safety while undergoing surgical procedures by fostering better communication and team work among the surgical teams.

Surgical Safety Checklist is a patient safety communication tool that is used by a team of operating room professionals to discuss important details about a surgical case at three distinct stages or phases during surgery which are Sign-In, Time – Out and Sign – Out.

Implementation of a checklist can both decrease the number of communication failures in the operating theatre and the number of complications from surgery. It can also reduce the risk of wrong- site surgery.

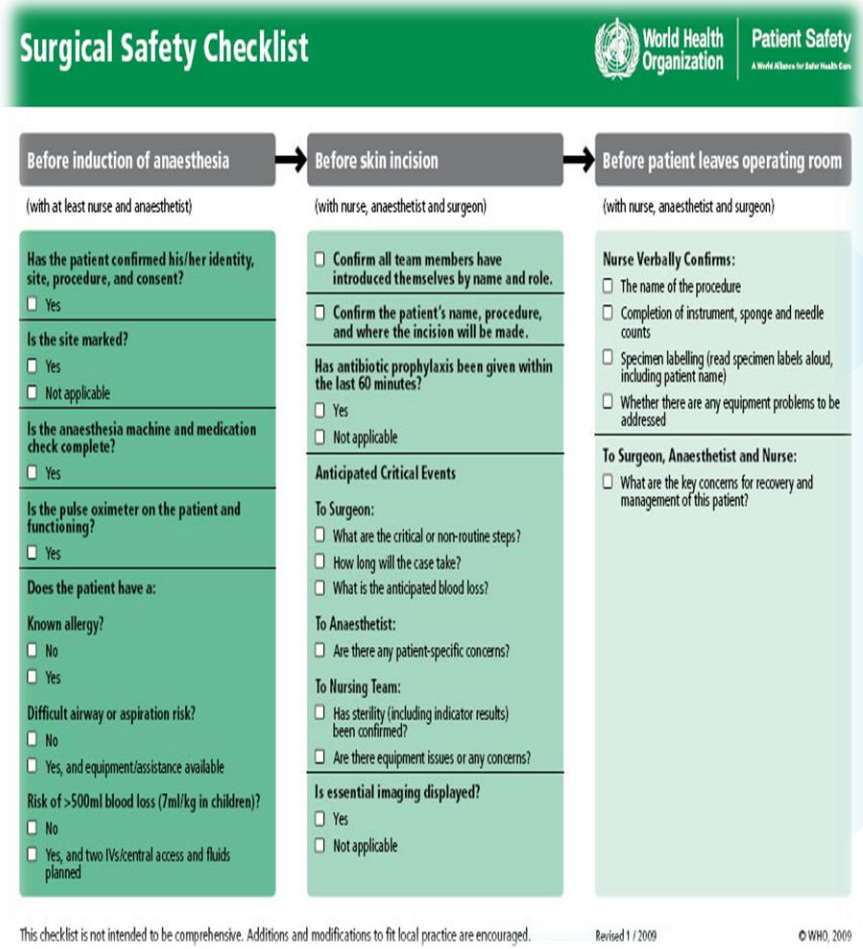
- Reinforces accepted safety practices
- Fosters better communication and teamwork between clinical disciplines
- Improves the safety of operations
- Avoids inadequate anaesthetic safety practices
- Reduces avoidable surgical infections
- Reduces unnecessary surgical deaths and complications

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 study will help to analyze the safety measures taken during the surgical procedures, from the entry 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 aim of the study is not only to check the overall compliance of the checklist but also 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.

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 examine its compliance in different surgical departments and in various surgeries happening in OTs
- To study the entire process flow of the patient inside the operation theatre.
- To determine the factors contributing non-compliance of surgical safety checklist.
- To give recommendations for further improvement in the surgical safety of the patient.



Surgical Safety Checklist

World Health Organization | Patient Safety

A World Alliance for Safer Health Care

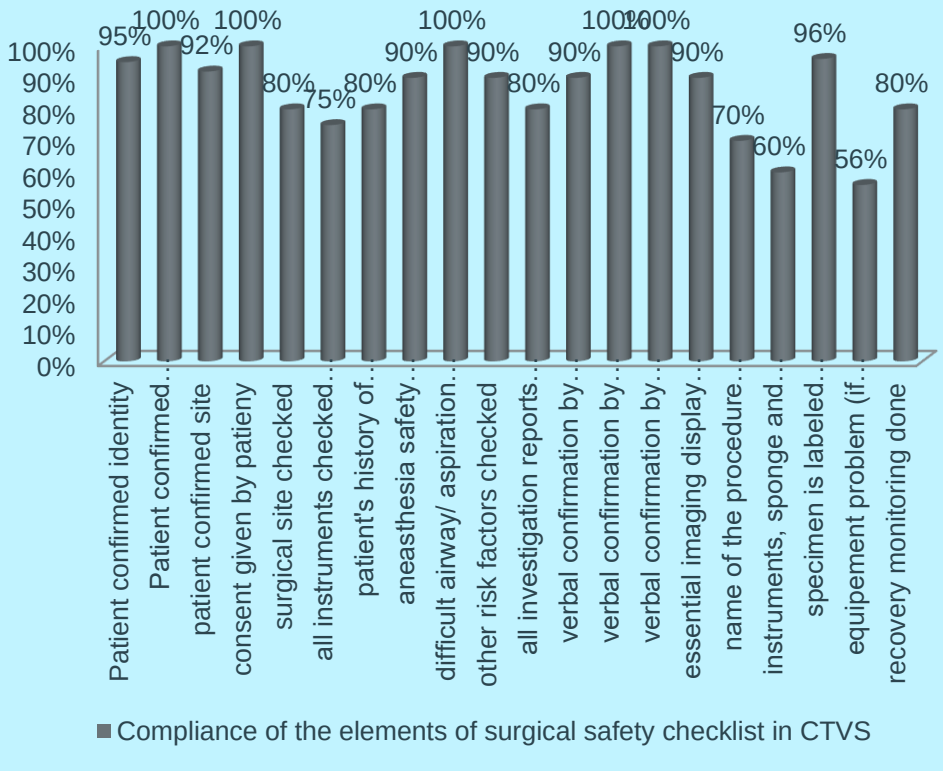
Before induction of anaesthesia (with at least nurse and anaesthetist)	Before skin incision (with nurse, anaesthetist and surgeon)	Before patient leaves operating room (with nurse, anaesthetist and surgeon)
Has the patient confirmed his/her identity, site, procedure, and consent? ☐ Yes	☐ **Confirm all team members have introduced themselves by name and role.**	**Nurse Verbally Confirms:** ☐ The name of the procedure
Is the site marked? ☐ Yes ☐ Not applicable	☐ **Confirm the patient's name, procedure, and where the incision will be made.**	☐ Completion of instrument, sponge and needle counts
Is the anaesthesia machine and medication check complete? ☐ Yes	**Has antibiotic prophylaxis been given within the last 60 minutes?** ☐ Yes ☐ Not applicable	☐ Specimen labelling (read specimen labels aloud, including patient name)
Is the pulse oximeter on the patient and functioning? ☐ Yes	**Anticipated Critical Events** To Surgeon: ☐ What are the critical or non-routine steps? ☐ How long will the case take? ☐ What is the anticipated blood loss?	☐ Whether there are any equipment problems to be addressed
Does the patient have a: Known allergy? ☐ No ☐ Yes Difficult airway or aspiration risk? ☐ No ☐ Yes, and equipment/assistance available Risk of >500ml blood loss (7ml/kg in children)? ☐ No ☐ Yes, and two IVs/central access and fluids planned	To Anaesthetist: ☐ Are there any patient-specific concerns? To Nursing Team: ☐ Has sterility (including indicator results) been confirmed? ☐ Are there equipment issues or any concerns? **Is essential imaging displayed?** ☐ Yes ☐ Not applicable	**To Surgeon, Anaesthetist and Nurse:** ☐ What are the key concerns for recovery and management of this patient?

This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged. Revised 1 / 2009 © WHO, 2009

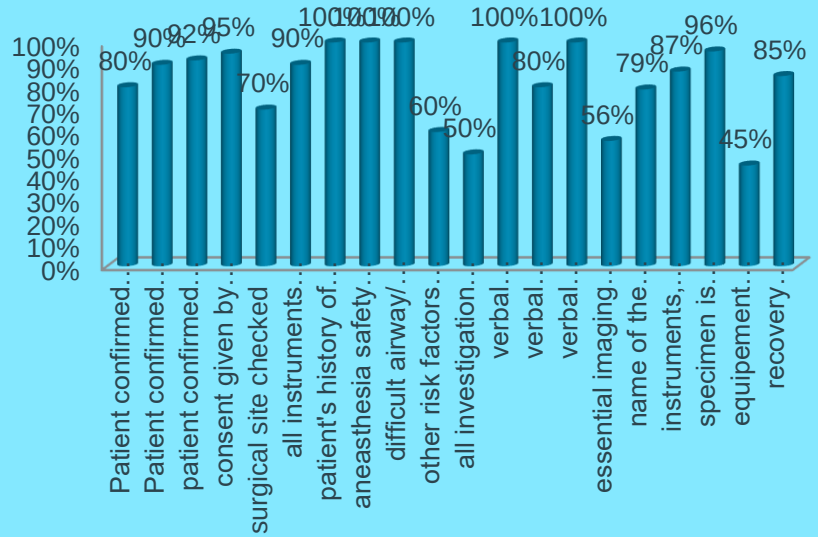
RESEARCH METHODOLOGY

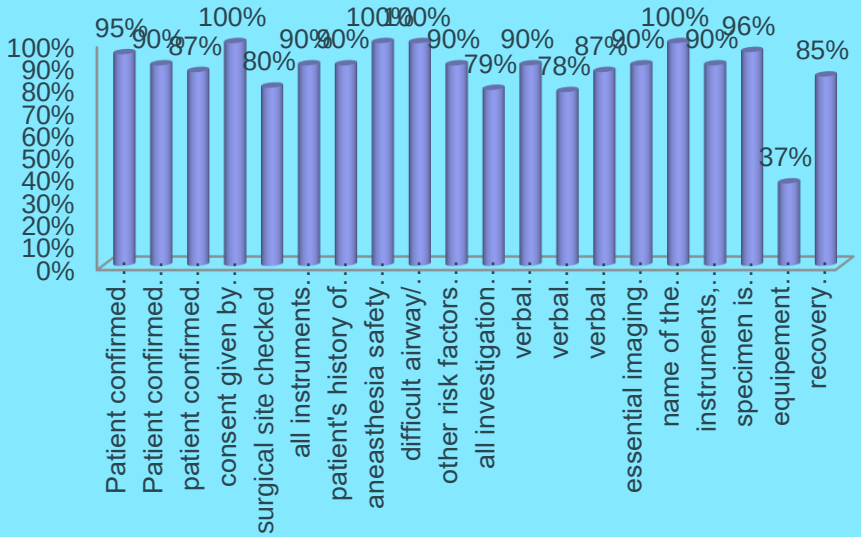
- **AREA OF STUDY**: Operation theater complex, Ivy Hospital, Mohali
- **DURATION OF STUDY**: 1 month
- **TYPE OF STUDY**: Observational cross-sectional
- **STUDY POPULATION**: In patient, Surgeons, Anesthetists, Nurses and OT staff from 20th May, 2021 to 20th June 2021 at Ivy Hospital, Mohali.
- **TYPE 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 prepared for next patient.
- **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 ENTERY**: Manually
- **DATA ANALYSIS**: MS Excel using Bar charts, pie charts etc.

FINDINGS AND RESULTS



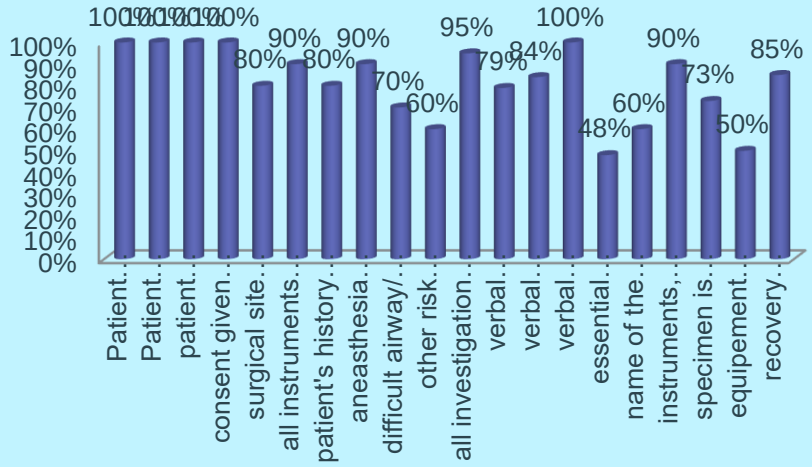
DESCRIPTION On observing the above data, it is seen that few elements out of 12 cases of CTVS have 100% or almost 100% compliance such as patient confirmed identity, procedure, site and consent, difficult airway checked, anaesthesia safety checked, other risk factors checked, all investigation reports 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%.

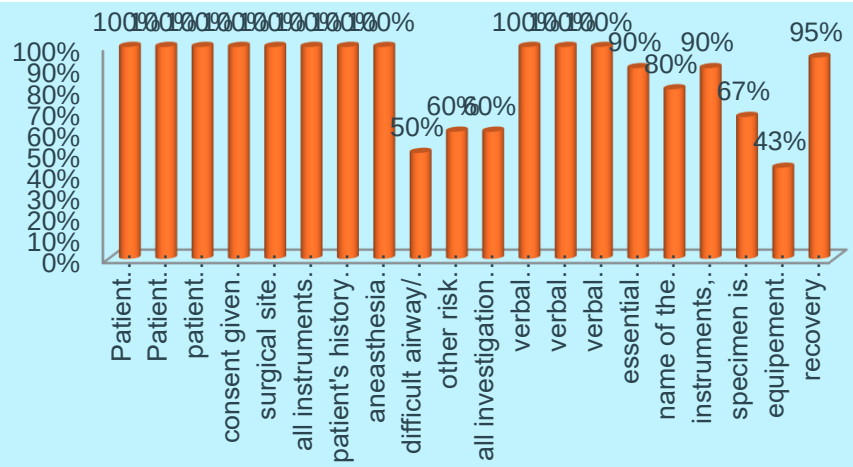




DESCRIPTION On observing the above data, it is seen that few elements out of 12 cases of orthopaedic surgeries have 100% or almost 100% compliance such as patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, patient history of allergy checked, anaesthesia 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%.

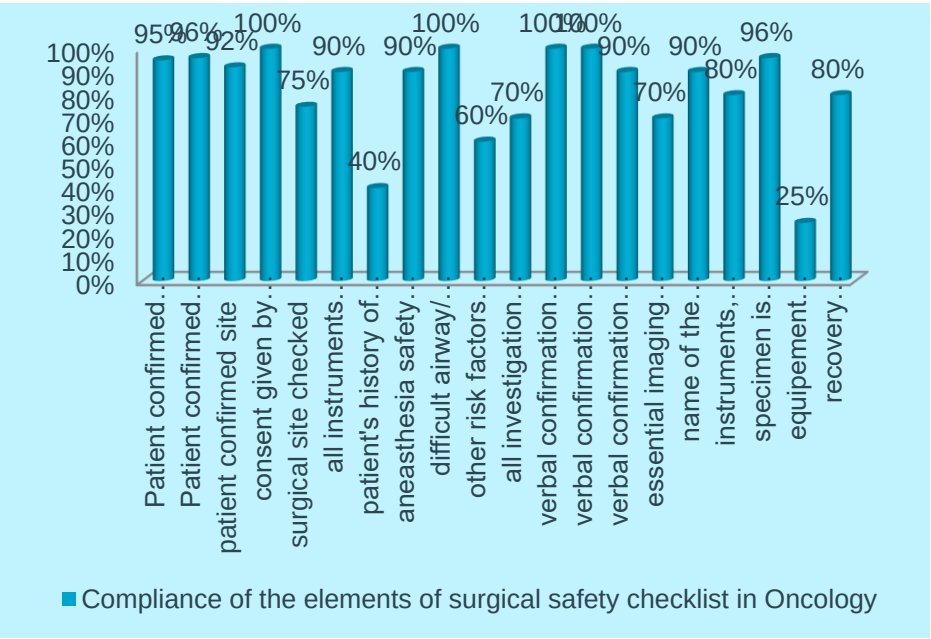
DESCRIPTION **On observing the above data, it is seen that almost all elements out of 5 cases of Paediatric surgeries have 100% or almost 100% compliance. The least compliance is shown by the element equipment problem (if any) which is 37%.**

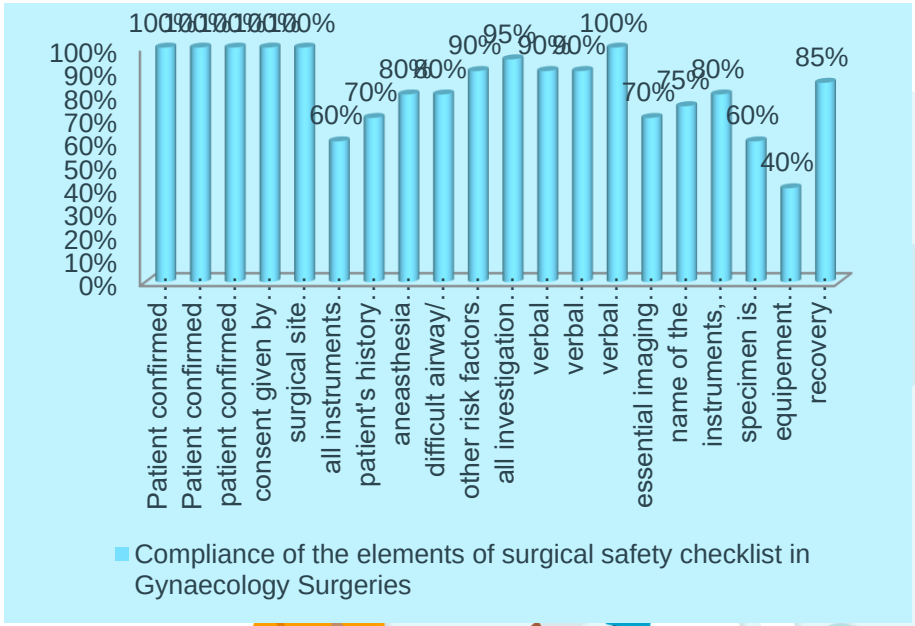




DESCRIPTION On observing the above data, it is seen that few elements out of 6 cases of Neuro surgeries have 100% compliance such as patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, all investigation reports available, anaesthesia safety checked, 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%.

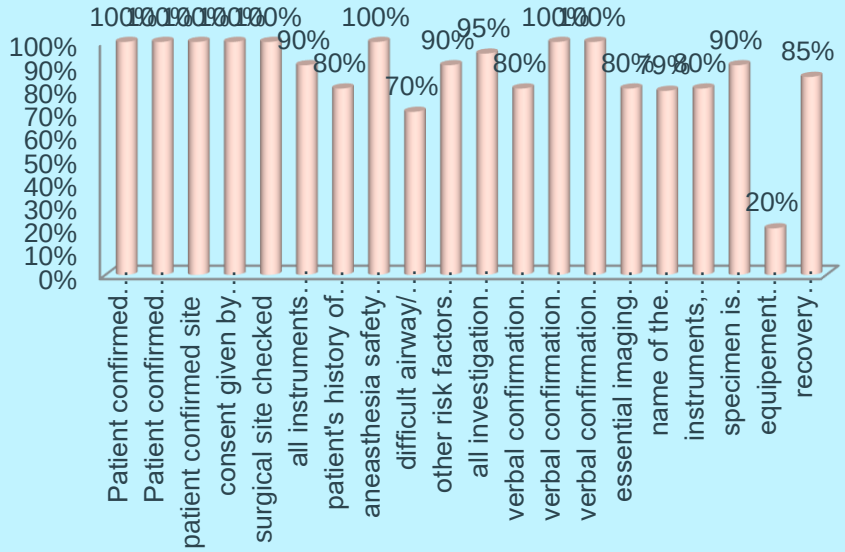
DESCRIPTION On observing the above data, it is seen that few elements out of 10 cases of Cardio surgeries have 100% compliance such as patient confirmed identity, procedure, site and consent, surgical site checked, all instruments checked and available for surgery, all investigation reports available, 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).

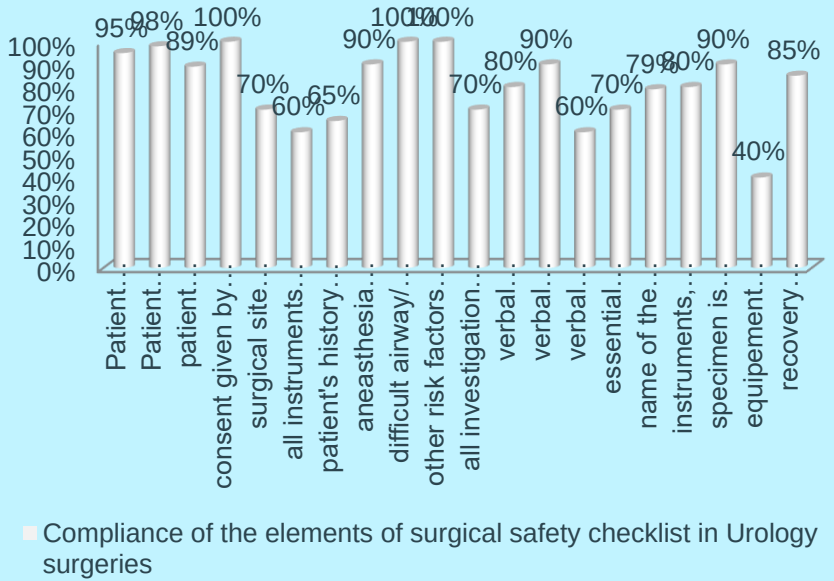




DESCRIPTION On observing the above data, it is seen that few elements out of 4 cases of Oncology surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, all instruments checked and available for surgery, anaesthesia safety checked, difficult airway/ aspiration 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).

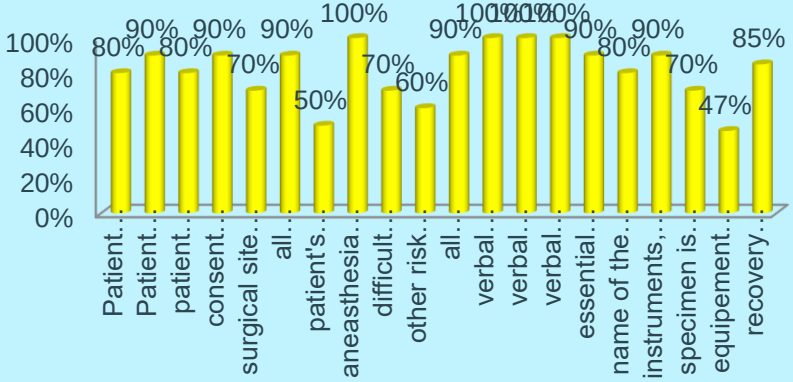
DESCRIPTION On observing the above data, it is seen that few elements out of 11 cases of Gynaecology surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, anaesthesia safety checked, difficult airway/ aspiration checked, verbal confirmation by surgeon, anaesthesiologist 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).

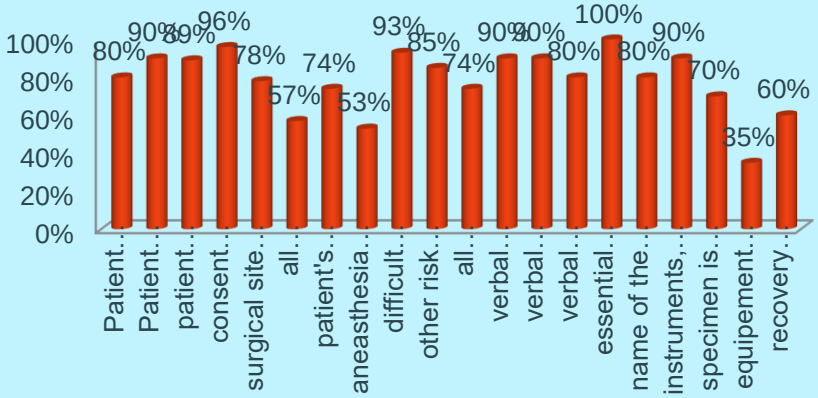




DESCRIPTION On observing the above data, it is seen that almost all elements out of 15 cases of Gastro surgeries have 100% compliance. We have seen least compliance in equipment problem (if any) which is 20%.

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).

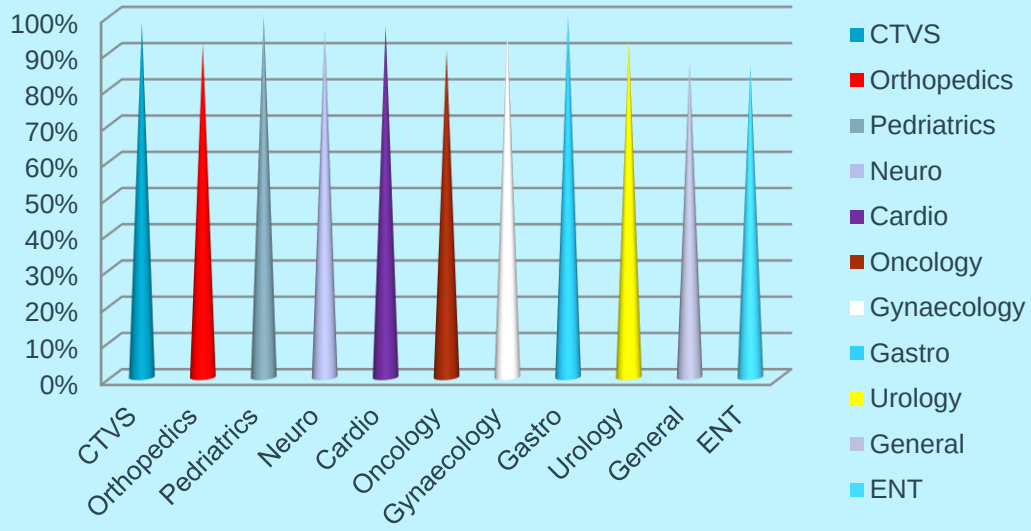




DESCRIPTION On observing the above data, it is seen that few elements out of 8 cases of General surgeries have 100% compliance seen in patient confirmed identity, procedure, site and consent, anaesthesia safety checked, all instruments checked and available for surgery, verbal confirmation by surgeon, 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.

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.

Complaince of Sign In in various departments

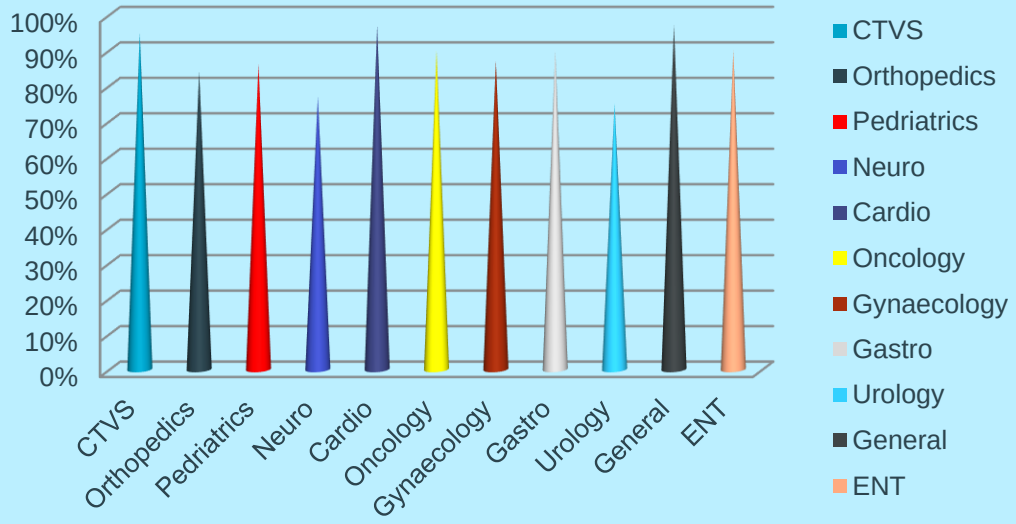


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Sign In in the various departments of OT in Ivy Hospital, Mohali is 94%. 100% compliance is seen in CTVS, Paediatric, Neuro , cardio, oncology, gynaecology, gastro, urology, orthopaedics departments.

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.

Complaince of Time- Out In various departments

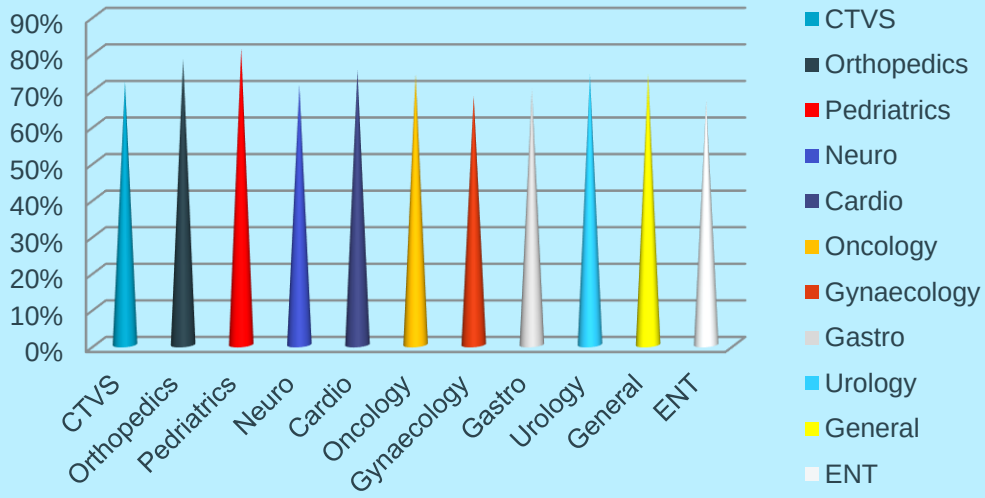


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Time Out in the various departments of OT in Ivy Hospital, Mohali is 88%. 100% compliance is seen in CTVS, Paediatric, cardio, oncology, gynaecology, gastro, urology, orthopaedics departments.

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.

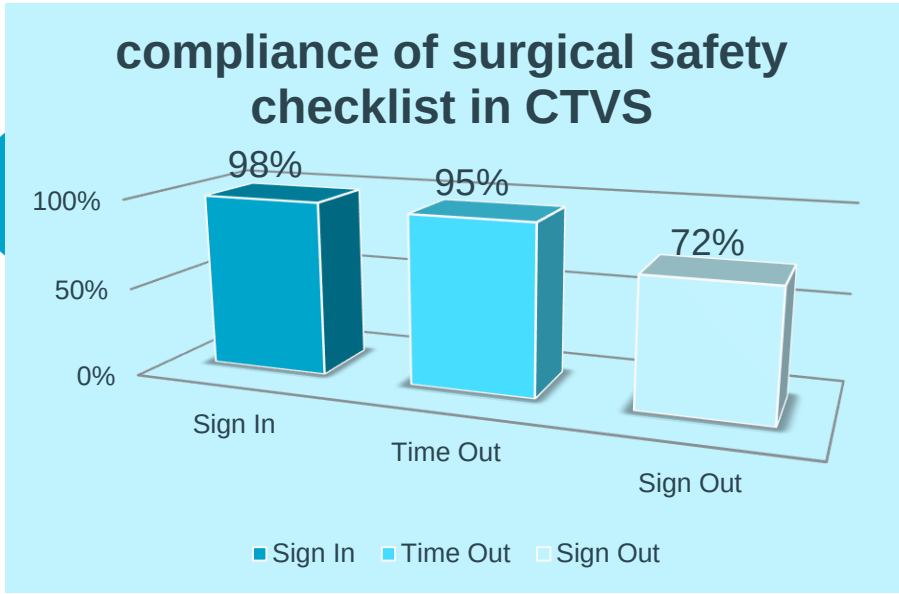
Compliance of Sign-Out in various departments

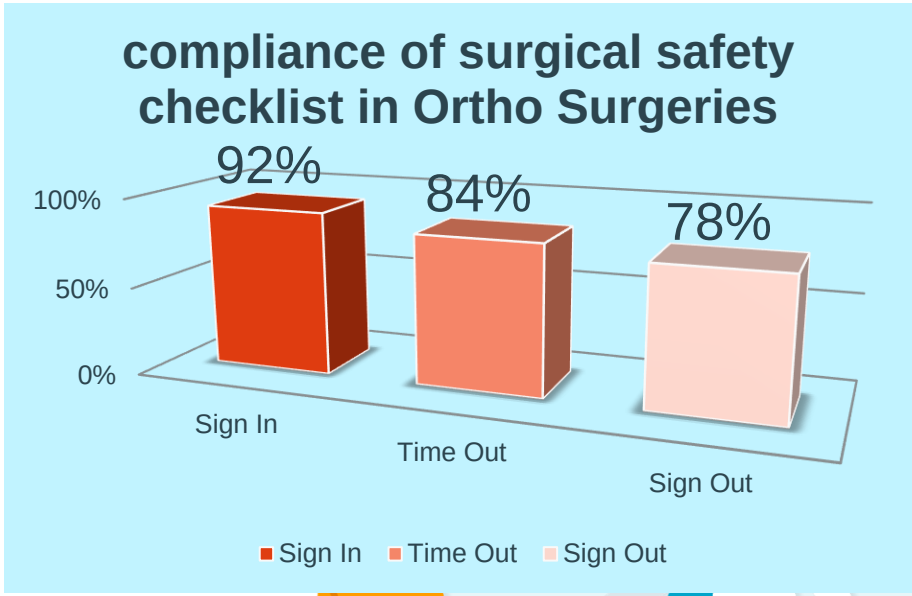


DESCRIPTION On analysing the above data, it is observed that the overall compliance of Sign Out in the various departments of OT in Ivy Hospital, Mohali is 73%. Maximum compliance seen is 81% with paediatric department.

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 .





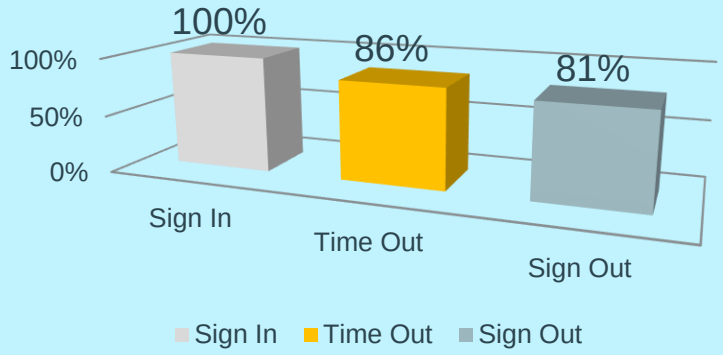
DESCRIPTION On observing the above graphical data of CTVS, it is evident that out of 12 surgical procedures, compliance of Sign In of surgical safety checklist in CTVS is 98%, Time Out of surgical safety checklist in CTVS is 95% and Sign Out of surgical safety checklist in CTVS is 72%.

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

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.

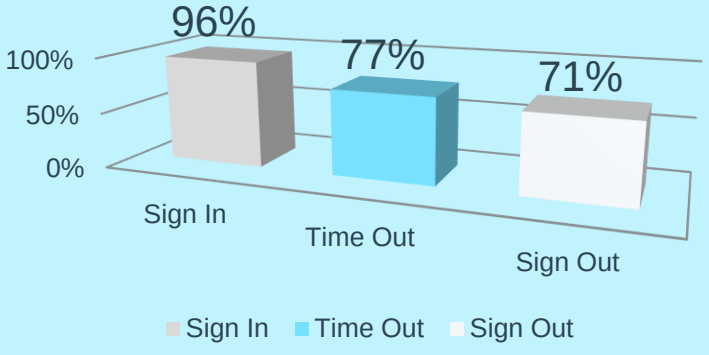
Compliance of surgical safety checklist in Pediatric Surgeries



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%.

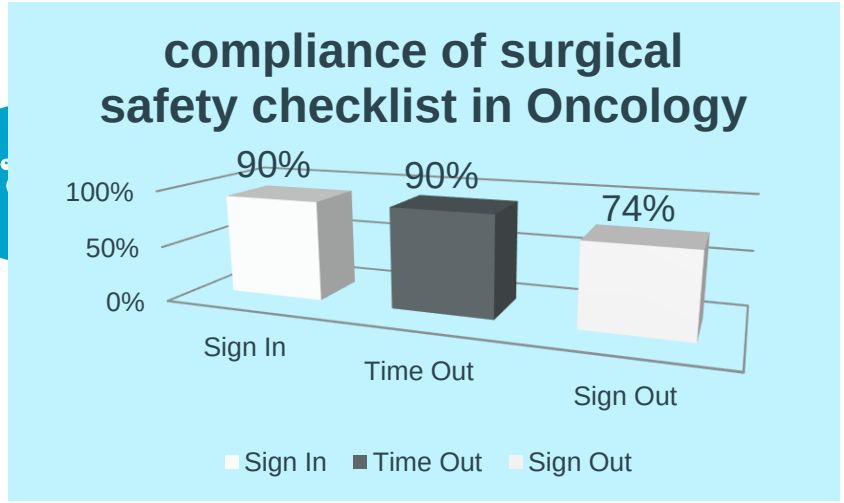
Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Paediatric surgeries.

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.

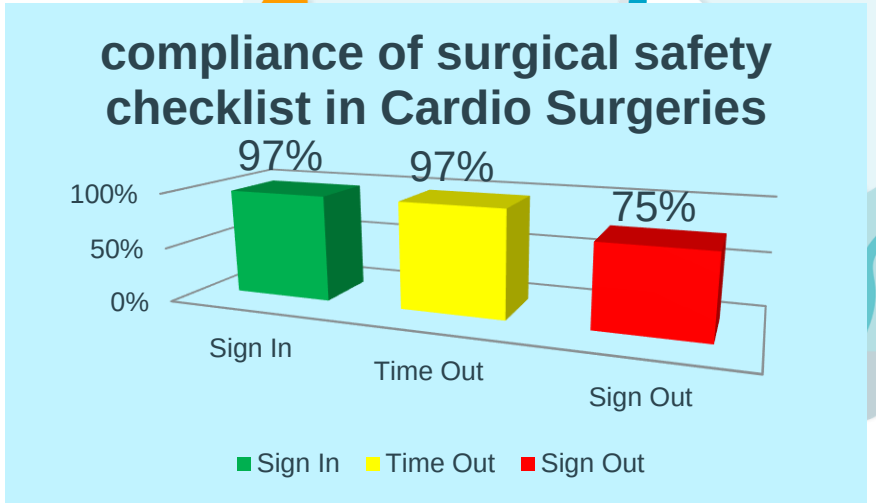


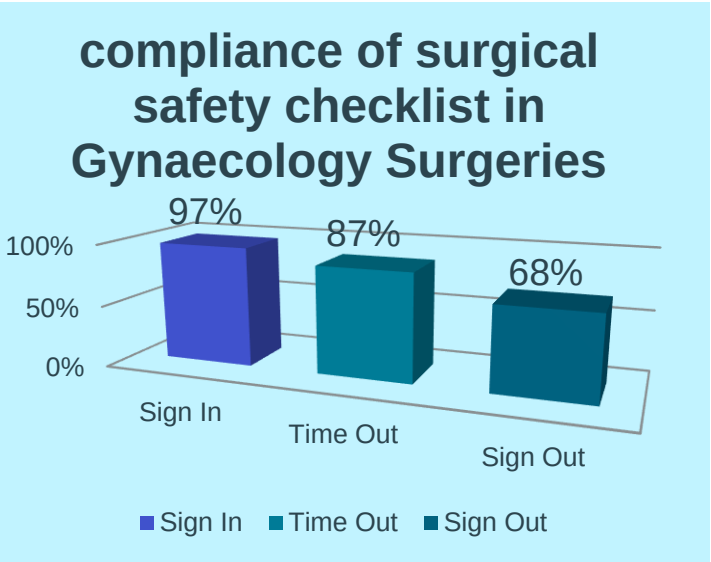
DESCRIPTION On observing the above graphical data of Oncology surgeries , it is evident that out of 4 surgical procedures, compliance of Sign In of surgical safety checklist in Oncology surgeries is 90%, Time Out of surgical safety checklist in Oncology surgeries is 90% and Sign Out of surgical safety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

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%.

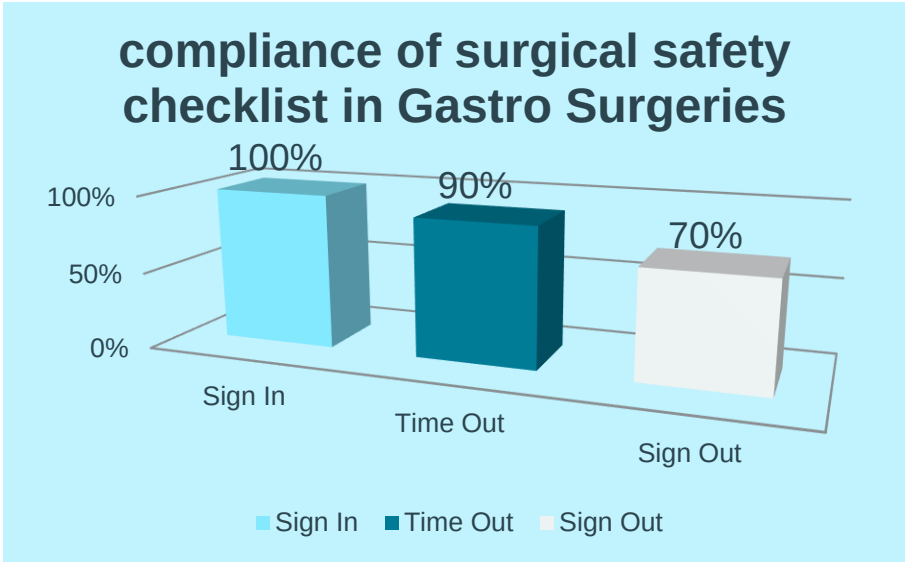
Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Cardio surgeries.





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%.

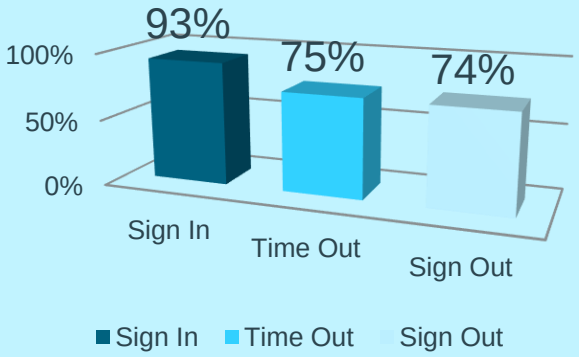
Overall, it shows that much attention need to be given on Sign Out of surgical safety checklist in Gynaecology surgeries.



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.

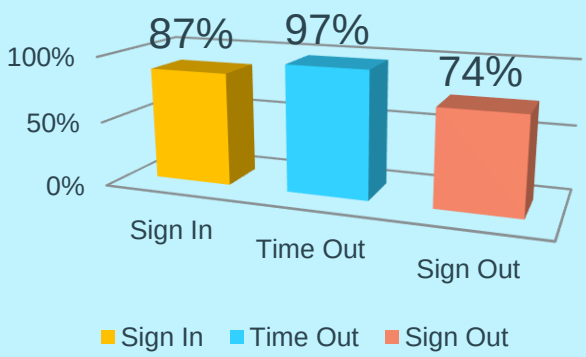
compliance of surgical safety checklist in Urology Surgeries



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.

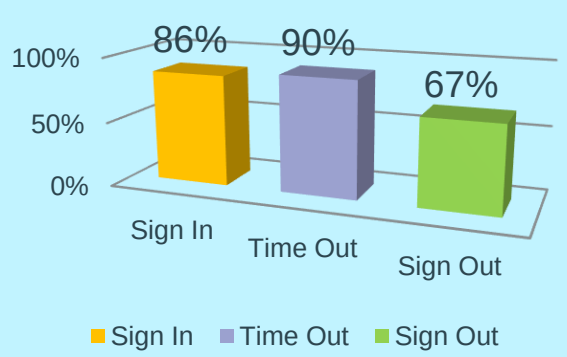
compliance of surgical safety checklist in General Surgeries



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%.

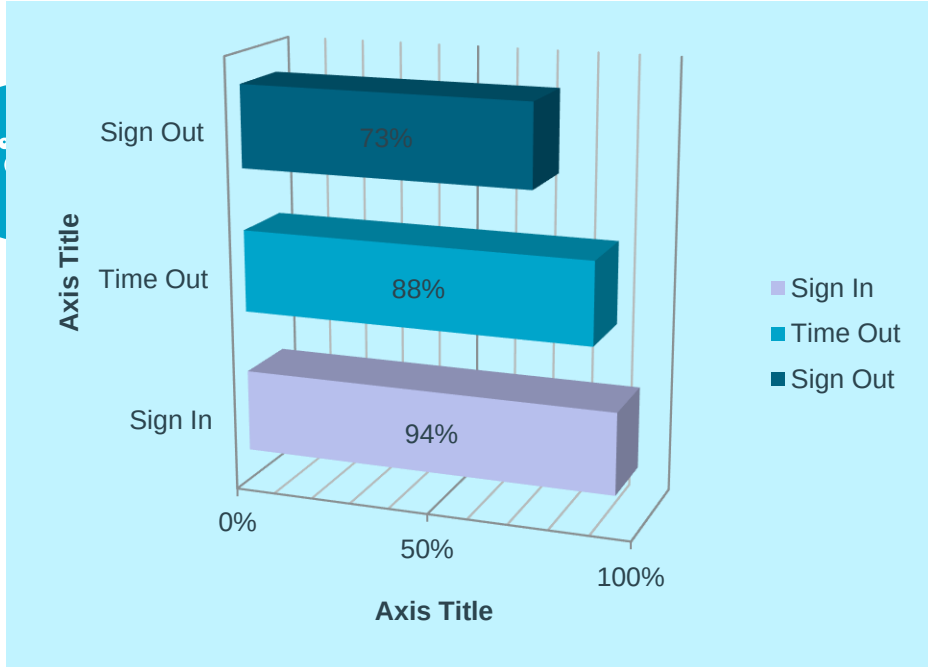
Overall, it shows that much attention needs to be given on Sign Out of surgical safety checklist in General surgeries.

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 is6 7%.

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



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.

Recommendation

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.

The departments like ENT and Urology need to be taken care more in order to maintain standards of quality due to high work load.

Need to focus more on urology , neuro and ENT department to maintain proper surgical safety checklist in order to avoid any complication as it is an important part before any surgical procedure starts.

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.

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

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 good. Despite initiatives by major health organizations to improve surgical safety there is still work to be done to ensure that events such as wrong site surgery no longer occur. Implementation of such protocols has improved patient safety and in general is viewed favorably by operating room personnel. the surgical team members are given training and learning class to understand the importance of surgical safety checklist for safe surgical procedures. Thus, the quality is maintained by providing better patient safety services in the operating room

PART B

Observational learning of the organization

HOSPITAL OVERVIEW

- 205-bedded multi Super Specialty Tertiary Care Hospital
- 32 critical care beds
- Certified by NABH organized in a perceptible region at Mohali
- It has a built-up area of over 1, 50,000 square feet.
- The hospital is providing tertiary level medical care in Cardiology, Cardio Vascular and Thoracic Surgery, Oncology, Neurosurgery, Neurology, Urology, Nephrology, Renal Transplant Surgery, Laparoscopic medical procedure, Vascular Surgery, Orthopedics, Plastic Reconstruction and Cosmetic Surgery etc.
- The hospital has employed exceptionally qualified and experienced specialists to head various departments.
- Fully digital mammography and x- ray
- Modular IVF and diagnostic lab
- Fully equipped life saver ambulance
- Ergonomically designed interior
- 6 state – of – the – art – modular OTs
- 24*7 emergency services provided

ORGANIZATIONAL LEARNING

VARIOUS DEPARTMENTS AND SERVICES

- VARIOUS CLINICAL SERVICES
- 24 HOUR SERVICE
- LABORATORY SERVICES AND IMAGING SERVICES FOR IPD
- BLOOD CENTRE (TRANSFUSION)
- DIAGNOSTIC SERVICES
- SAMPLE COLLECTION ROOM
- VARIOUS UTILITY SERVICES LAUNDARY
- MORTUARY
- STORE ROOM
- INTENSIVE CARE UNIT
- OUT PATIENT DEPARTMENT
- IN PATIENT DEPARTMENT
- OPERATION THEATRE
- EMERGENCY
- MEDICAL RECORD ROOM


Thank you