

Dissertation on

***“Compliance for International Patient Safety Goals: A Case  
Study of Max Smart Super Speciality Hospital”***

by

**Dr. Shikha Chauhan**  
Enroll No: PG/22/111

For the partial fulfilment of Post graduate diploma in Hospital and Health  
Management equivalent to MBA

Under the guidance of

**Dr. Mukesh Ravi Raushan**  
(Assistant Professor)

at

Max Smart Super Speciality Hospital, Saket



**International Institute of Health Management Research, New Delhi**

**2022-24**

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**International Institute of Health Management Research, New Delhi**

**2022-24**

## **TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Dr. Shikha Chauhan** student of **PGDM (Hospital & Health Management)** from International Institute of Health Management Research, New Delhi has undergone dissertation training at Max Smart Super Speciality Hospital, Saket, New Delhi, India from 27<sup>th</sup> March - 26<sup>th</sup> June 2024.

The Candidate has successfully carried out the study designated to him during dissertation training and his/her approach to the study has been sincere, scientific and analytical.

The dissertation is in fulfilment of the course requirements. I wish her all success in all her future endeavours.

**Dr. Sumesh Kumar**

Associate Dean, Academic and  
Students Affairs, IIHMR Delhi, India

**Dr. Mukesh Ravi Raushan**

Assistant Professor, IIHMR Delhi,  
India

## Certificate of Approval

The following dissertation titled “*Compliance for International Patient Safety Goals: A Case Study of Max Smart Super Speciality Hospital*” at “**Max Smart Super Speciality Hospital, Saket**” is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** equivalent to **MBA (PGDM)** from **International Institute of Health Management Research, New Delhi, India** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Dr. Pijush Kamli Khan.  
Dr. Aman Raj Gupta  
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Signature

Pijush  
Aman Raj Gupta  
Nidhi

## Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Shikha Chauhan**, a graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. He/she is submitting this dissertation titled *“Compliance for International Patient Safety Goals: A Case Study of Max Smart Super Speciality Hospital”* at Max Smart Super Speciality Hospital, Saket in partial fulfilment of the requirements for the award of the **Post Graduate Diploma in Health and Hospital Management** equivalent to MBA (PGDM) from **International Institute of Health Management Research, New Delhi, India.**

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

Guide  
**Dr. Mukesh Ravi Raushan**  
(Assistant Professor)  
IIHMR, New Delhi

  
**Dr. Renu Siwas**  
(Medical Superintendent)  
Max Hospital, Saket  


**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,  
NEW DELHI**

**CERTIFICATE BY SCHOLAR**

This is to certify that the dissertation titled “*Compliance for International Patient Safety Goals: A Case Study of Max Smart Super Specialty Hospital*” and submitted by **Dr. Shikha Chauhan Enrolment No: PG/22/111** under the supervision of **Dr. Mukesh Ravi Raushan** for award of **PGDM (Hospital & Health Management) of the Institute** carried out during the period from 27<sup>th</sup> March 2024 to 26<sup>th</sup> June 2024 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature:

Name:

Place:

Date:

## FEEDBACK FORM

Name of the Student: Dr. Shikha Chauhan

Name of the Organisation in Which Dissertation Has Been Completed:

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Area of Dissertation: Quality Department

Attendance: Regular

Objectives achieved: Completed IPSG project

Deliverables: IPSG Audit, Active file audit, Mortality Audit & Analysis

Strengths: Industrious, Dedicated - Completes the task assigned

Suggestions for Improvement: NA

Suggestions for Institute (course curriculum, industry interaction, placement, alumni): NA

Kanika  
04/07/24  
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Deputy Manager - Medical Quality  
Place: Max Smart Super Speciality Hospital  
Date: 04/07/24.



## Certificate of Completion

This is to certify that **Dr. Shikha Chauhan**, Registration Number: PG/22/111 of **Post Graduate Diploma in Health and Hospital Management** equivalent to **MBA (PGDM)** from **International Institute of Health Management Research, New Delhi, India** has successfully completed the Dissertation internship from **Max Smart Super Speciality Hospital, Saket, New Delhi, India**. She Completed her internship in the **Department of Quality** on *“Compliance for International Patient Safety Goals: A Case Study of Max Smart Super Speciality Hospital”* during March 27<sup>th</sup>, 2024 to June 26<sup>th</sup>, 2024.

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning. We wish him/her all the best for future endeavours.



**Training & Development**



**Zonal Head-Human Resources**



## **Feedback Form**

**Name of the Student:** Dr. Shikha Chauhan

**Name of the Organisation in Which Dissertation Has Been Completed:** Max Smart Super Speciality Hospital, Saket

**Area of Dissertation:** Quality Department, Hospital

**Attendance:** Satisfactory

**Objectives achieved:** Yes

**Deliverables:** All tasks were submitted on time

**Strengths:** Good communication and leadership skills

**Suggestions for Improvement:** NA

**Suggestions for Institute (course curriculum, industry interaction, placement, alumni):** NA

**Signature of the Officer-in-Charge/ Organisation Mentor  
(Dissertation)**

**Date:** 01-08-2024

**Place:** Delhi

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I would like to express my deepest gratitude to my esteemed mentor, Dr. Mukesh Ravi Raushan, for his invaluable support and guidance throughout the course of this dissertation on "Compliance for International Patient Safety Goals." His expertise, insightful feedback, and constant encouragement have been fundamental to the successful completion of this study. He shares his knowledge and provides thoughtful critiques that have significantly refined my research and elevated the quality of my work. Beyond academic guidance, his understanding and patience provided me with the confidence and motivation to overcome the challenges I encountered along the way. His dedication to my academic growth and personal development has been truly inspiring. Thank you for being a remarkable mentor and for your unwavering support throughout this journey.

## **List of Abbreviations**

IPSG: International Patient Safety Goals

HAM: High Alert Medications

HAI: Hospital Acquired Infections

ID: Identification

LASA: Look Alike Sound Alike

WHO: World Health Organization

NABH- national Accreditation Board for Hospitals

ISO- International Organization for Standardization

ICU- Intensive care unit

IPD- Inpatient Department

OPD- Outpatient Department

JCI: Joint Commission International

NPSG: National Patient Safety Goals

RCA: Root Cause Analysis

EHR: Electronic Health Record

QA: Quality Assurance

QI: Quality Improvement

VAP: Ventilator-Associated Pneumonia

CAUTI: Catheter-Associated Urinary Tract Infection

CLABSI: Central Line-Associated Bloodstream Infection

## Introduction of Hospital



Max Smart Super Speciality Hospital in Saket, New Delhi (a unit of Gujarmal Modi Hospital & Research Centre for Medical Sciences), is a leading healthcare institution known for its advanced medical facilities, state-of-the-art infrastructure and exceptional patient care.

As part of the renowned Max Healthcare network, the hospital offers a wide array of specialized services, including cardiology, oncology, orthopaedics, neurology, and more. With a commitment to providing world-class healthcare With the help of over 300 leading specialist Doctors, strong nursing staff, and state-of-the-art innovative medical tools, Max Smart is staffed by a team of highly qualified and experienced medical professionals who utilize the latest technology and evidence-based practices to ensure optimal patient outcomes.

Max Smart Super Speciality Hospital, Saket is a regional hub for complex procedures such as neurovascular intervention, targeted cancer treatments, heart

surgeries, orthopaedic surgeries, renal, bariatric, paediatrics, obstetrics and gynaecological treatments.

The hospital's dedication to excellence in patient care and safety is reflected in its adherence to international standards and its continuous efforts in quality improvement initiatives.

## **Scope of Services**

Max Smart Super Specialty Hospital is a 250 bedded tertiary care facility which offers an unparalleled spectrum of preventive, diagnostic and treatment facilities with follow-up care in all medical and surgical specialties and super specialties.

## **Clinical Services**

- I. Anaesthesiology
- II. Dermatology and Venereology (Only OPD)
- III. Emergency Medicine
- IV. Internal Medicine including
  - Family Medicine
  - General Medicine
  - Geriatrics
- V. General Surgery including
  - Laparoscopic Surgery
  - Minimal Access and Bariatric Surgery
- VI. Infectious Disease
- VII. Obstetrics and Gynaecology
  - Reproductive Medicine (Only OPD)
- VIII. Orthopaedics including
  - Joint replacement
  - Arthroscopic Surgery
  - Hand Surgery

- Sports Medicine
- IX. Otorhinlaryngology
- X. Psychiatry
- XI. Radiology
- XII. Pulmonology and Respiratory Medicine
- XIII. Cardiac Sciences
  - Cardiac Anaesthesia
  - Cardiology
  - Cardiothoracic Surgery
- XIV. Critical Care
- XV. Speciality ICU
  - Cardiac (CTVS ICU)
  - Medicine (ICU)
  - Surgery (SICU)
  - Paediatric (PICU)
  - Neonatal (NICU)
- XVI. Endocrinology including Endocrine Surgery
- XVII. Haematology
- XVIII. Hepatology
- XIX. Gastroenterology
  - Medical Gastroenterology
  - Surgical Gastroenterology
- XX. Paediatrics including
  - Paediatric Anaesthesia
  - Paediatric Nephrology
  - Paediatric Cardio-Thoracic Vascular Surgery
  - Paediatric Cardiology



- Paediatric Surgery

- Neonatology

XXI. Nephrology

- Dialysis

XXII. Neuro Sciences

- Neurology

- Neurosurgery including Paediatric Neuro surgery

- Neuro-anaesthesia

- Neuro-Radiology

XXIII. ONCOLOGY

- Medical Oncology

- Surgical Oncology

- Gynaecological Oncology

- Hemato-oncology

XXIV. Plastic and Reconstructive Surgery

XXV. Rheumatology

XXVI. Urology

XXVII. Vascular Surgery

XXVIII. Thoracic Surgery

XXIX. Ophthalmology

XXX. Dental (Only OPD)

OTHER SPECIALITY

I. Endo Vascular Interventions

II. Interventional Radiology

III. Interventional Neurology

PROFESSIONS ALLIED TO MEDICINE

I. Ambulance

- II. Blood Bank/transfusion services
- III. Dietetics
- IV. Psychology
- V. Rehabilitation
- VI. Occupational Therapy
- VII. Physiotherapy
- VIII. Speech and Language Therapy

## DIAGNOSTIC SERVICES

### Radiology

- Bone Densitometry
- CT Scanning
- MRI
- Ultrasound
- X-Ray
- Barium Studies

### Laboratory Service

- Clinical Bio-Chemistry
- Clinical Microbiology and Serology
- Clinical Pathology
- Cytopathology
- Genetics
- Haematology
- Histopathology
- Molecular Biology

- Toxicology

#### Non – Invasive Cardiology

- 2D Echo
- Audiometry
- EEG
- EMG/EP
- Holter Monitoring
- Spirometry
- Tread Mil Testing

#### Scopy

- Bronchoscopy
- Endoscopy
- Colonoscopy
- Sigmoidscopy

#### Urodynamic Studies

#### Blood Transfusion Services

### NON CLINICAL AND ADMINISTRATIVE SERVICE

- Bio-Medical Engineering
- Catering and Kitchen Services
- Community Services
- CSSD
- General Administration
- Housekeeping
- Human Resources
- Information Technology

- Laundry
- Maintenance/Facility Management
- Management of Bio-Medical Waste
- Mortuary Services
- Security
- Social Service
- Supply Chain Management/Material Management

## Introduction of International Patient Safety Goals

The International Patient Safety Goals (IPSGs) are a series of strategic objectives designed to improve patient safety and quality of care across global healthcare settings. Established by the Joint Commission International (JCI) and supported by the World Health Organization (WHO), these goals focus on critical areas where patient safety can be enhanced. Key aspects of the IPSGs include improving communication among caregivers, ensuring accurate patient identification, safeguarding against medication errors, reducing the risk of healthcare-associated infections, and fostering a culture of safety. By addressing these high-risk areas, the IPSGs aim to promote safer clinical practices and improve patient outcomes, reflecting a global commitment to advancing healthcare quality and protecting patients.

S. No.	Std.	Index - IPSG
1	IPSG.1	Identify Patient Correctly
2	IPSG.2	Verbal Order Policy
3	IPSG.2.1	Reporting of critical test result
4	IPSG.2.2	Handover Communication
5	IPSG.3	High Alert Medication
6	IPSG.3	Look Alike Sound Alike Medicine
7	IPSG.3.1	Storage of concentrated Electrolytes
8	IPSG.4, 4.1	Ensure Correct site, Correct procedure & Correct Patient Surgery
9	IPSG.5	Hand Hygiene Policy
10	IPSG.6	Fall Prevention Policy
11	IPSG.6,1	Fall Prevention for outpatient Policy

Patient safety is defined as the elimination of preventable harm to patients throughout healthcare procedures. It involves minimizing and addressing unsafe practices within the healthcare system through the implementation of best practices that aim to achieve optimal patient outcomes. This approach is centered on a care delivery system that (1) prevents errors, (2) learns from any errors that occur, and (3) cultivates a culture of safety that includes healthcare professionals, organizations, and patients.

National Patient Safety Goals are targeted actions that accredited organizations must follow to avoid medical errors, such as communication breakdowns among caregivers, improper use of infusion pumps, and medication errors. The

International Patient Safety Goals aim to drive specific enhancements in patient safety by tackling problematic areas in healthcare and offering solutions grounded in evidence and expert recommendations. These goals address safety concerns and provide actionable strategies to improve patient care.

International Patient Safety Goals play a crucial role in:

- Enhancing particular facets of patient safety.
- Tackling safety issues in healthcare and identifying effective solutions.

There are six key International Patient Safety Goals:

1. Accurate patient identification.
2. Enhanced communication effectiveness.
3. Greater safety for high-alert medications.
4. Ensuring the correctness of site, procedure, and patient during surgeries.
5. Minimizing the risk of healthcare-associated infections.
6. Reducing the likelihood of patient harm from falls.

### **Identify Patients Correctly (IPSG 1):**

- Ensure reliable patient identification.
- Patient Identification: Implement standardized processes for patient identification, including using two unique identifiers (e.g., full name and date of birth).
- Wristbands: Ensure that patients wear wristbands with accurate information.
- Verbal Verification: Verify patient identity verbally during interactions (e.g., before administering medications or performing procedures).
- Match treatments and services to the correct patient using identifiers like full name, medical record number, or birth date.

- Verify patient identity before procedures, diagnostics, medication administration, and during time-outs.

### **Improve Effective Communication (IPSG 2):**

- Convey critical information clearly and accurately.
- Implement “read back” for verbal and telephone test results.
- Handoff Communication: Enhance communication during patient handoffs (shift changes, transfers, etc.). Use structured tools (e.g., SBAR: Situation, Background, Assessment, Recommendation).
- Patient Education: Provide clear instructions to patients and families regarding their care plan, medications, and follow-up.
- Standardize abbreviations and symbols.

### **Improve Safety of High-Alert Medications (IPSG 3):**

- Display a list of high-alert medications (HAM) in clinical departments.
- Medication Reconciliation: Regularly reconcile medications to prevent errors during transitions of care.
- Double-Checking: Implement double-check procedures for high-risk medications (e.g., insulin, anticoagulants).
- Standardized Protocols: Follow evidence-based protocols for safe medication administration.
- Store HAM separately with special warning labels.

### **Ensure Correct Site, Procedure, and Patient Surgery (IPSG 4):**

- Use checklists and “Time-out” procedures to verify patient, procedure, and body part.
- Ensure correct documents and equipment before surgery.
- Preoperative Verification: Verify patient identity, surgical site, and procedure before surgery.
- Time-Out Procedure: Conduct a preoperative “time-out” to confirm critical details with the surgical team.



- Infection Prevention: Adhere to aseptic techniques and prevent surgical site infections.
- Mark surgical sites clearly.

#### **Reduce Healthcare-Associated Infections (IPSG 5):**

- Implement effective hygiene programs.
- Develop infection risk reduction policies.
- Hand Hygiene: Promote proper hand hygiene among healthcare workers.
- Isolation Precautions: Implement isolation precautions based on the type of infection.
- Environmental Cleaning: Regularly clean and disinfect patient care areas.

#### **Reduce Patient Harm from Falls (IPSG 6):**

- Prioritize fall prevention strategies.
- Implement safety measures to reduce fall risks.
- Fall Risk Assessment: Assess each patient's risk of falling upon admission.
- Fall Prevention Strategies: Implement interventions such as bed alarms, non-slip footwear, and close monitoring.
- Patient Education: Educate patients and families about fall prevention measures.

## **Literature Review**

International standards for patient safety are designed to enhance the quality of care and reduce the risk of harm to patients across healthcare settings. These standards, often set by organizations such as the World Health Organization (WHO) and the Joint Commission International (JCI), provide frameworks for improving patient safety through evidence-based practices. This literature review explores various studies related to international standards for patient safety, focusing on their development, implementation, and impact on healthcare outcomes.

### **Development of International Standards**

The development of international patient safety standards emerged from the recognition of widespread variability in healthcare quality and safety. The WHO's World Alliance for Patient Safety and the JCI's accreditation standards have played pivotal roles in shaping these global guidelines. Studies highlight that these standards aim to address critical issues such as error prevention, communication improvements, and infection control.

Research indicates that the creation of these standards was influenced by evidence from adverse event reports, safety incident analyses, and best practices identified across different healthcare systems. For example, the WHO's "Safe Surgery Saves Lives" initiative and the JCI's International Patient Safety Goals (IPSGs) reflect a global consensus on addressing high-risk areas in patient care.

### **Implementation and Compliance**

The successful implementation of international safety standards involves adapting guidelines to local contexts while maintaining adherence to global principles. Studies have shown that healthcare institutions that align with international standards experience improvements in patient safety outcomes. For instance, the adoption of WHO's surgical safety checklist has been linked to reduced rates of surgical complications and mortality.

However, challenges in implementing these standards include resistance to change, variability in resource availability, and differences in healthcare practices across regions. Research suggests that effective implementation requires a combination of leadership commitment, staff training, and continuous monitoring. The use of accreditation programs and certification processes by

organizations such as JCI helps institutions comply with international safety standards and foster a culture of safety.

### Impact on Patient Safety Outcomes

Numerous studies have evaluated the impact of international patient safety standards on healthcare outcomes. Evidence indicates that adherence to these standards leads to significant reductions in patient harm. For example, studies have documented decreases in healthcare-associated infections, medication errors, and procedural complications as a result of following established safety protocols.

The introduction of standardized protocols for high-alert medications and infection control practices has been associated with improved safety metrics. Additionally, research on the implementation of effective communication strategies, such as standardized handoff protocols and read-back procedures, has demonstrated enhanced accuracy and reduced errors in patient care.

### Challenges and Future Directions

While international standards have made substantial contributions to patient safety, challenges remain. Research identifies ongoing issues such as inconsistent adherence to protocols, limited resources for implementation, and the need for continuous education and training. Future studies are needed to address these challenges and explore ways to improve the integration of safety standards across diverse healthcare settings.

Emerging areas of research include the impact of digital health technologies and data analytics on patient safety. The integration of electronic health records (EHRs) and decision-support systems offers potential benefits in reducing errors and improving care coordination.

### Inference

International standards for patient safety play a crucial role in advancing healthcare quality and reducing the risk of harm to patients. Studies demonstrate that adherence to these standards leads to significant improvements in patient safety outcomes. However, successful implementation requires addressing various challenges and adapting guidelines to local contexts. Continued research and innovation are essential to enhance the effectiveness of international safety standards and to address emerging safety concerns in the evolving healthcare landscape.

## **Objectives**

The primary objective of the study is to analyse the compliance to international patient safety goals (IPSG) in a super speciality hospital, Saket, New Delhi, India

The specific objective of the study is:

- 1)To study compliance to correct patient identification, safety of high alert medications, ensure patients safe surgery, towards reducing risk of health care associated infections
- 2)To assess compliance to effective communication and vulnerable patients towards prevention of falls.
- 3)To assess the awareness and understanding of IPSG among the nursing staff at Max Hospital through interview.

## **Methodology**

Study Area: Max Smart Super Specialty Hospital, Saket

Study Period: The study was conducted from 27th March 2024 to 26th June 2024 (3 months)

Study Design: Descriptive observational study

Study Population: Inpatient wards, SICU and MICU

Methods of Data Collection: Primary Data was collected using IPSG audit tool checklist from the hospital (Combination of six checklist)

Data collection tool: Questionnaire, Checklist

Data analysis plan: Data analysis using by MS Excel

Data techniques: Observation and Interview, Interviews were conducted on Nursing staff on their awareness level for safety.

Sample Size:

100 patients for IPSG 1 & 6

70 patients for IPSG 4

50 Nursing staff to check awareness on IPSG Goals

Sampling Technique: Simple random convenient sampling was carried out for the study

**(Section -A)**

**Checklist for IPSG**

<b>IPSG1(Identify the patients correctly)</b>		
Patients are wearing a White ID Band		
Check contents on White ID Band		
Check for Red Band		
Check for violet band - worn by vulnerable patients		
Check correct patient identification - being done while serving diet to the patient		
Patient Identification Before Any Procedure / Medication		
<b>IPSG2(Improve effective communication)</b>		
Critical Value Report a) Critical Test Result Information: Informed & Received b) Escalated to: To doctor, advise & action taken c) Counter Check Process: Documentation of patients & counter signed by nursing staff		
<b>IPSG3(Improve the safety of high alert medication)</b>		
Check that insulin stored in refrigerator is present in boxes with orange-coloured labels.		
High Risk Medication Listed Area Wise, Stored Separately, Locked and Register updated		
Concentrated Electrolytes Stored in ICU		
LASA Drugs Kept Separately		
Look Alike Sound Alike - Storage of Sound alike drugs in containers with blue coloured containers - Storage of Lookalike drugs in containers with pink coloured containers		
Check for Insulin Observe (for Dispensing, Preparation and Administration) of the medication		
<b>IPSG4(Ensure correct site, correct procedure and correct patient surgery)</b>		
Check for patients undergoing any operative/ invasive procedure to have the site marked (if indicated)		

Check the "mark" to be: - distinctly visible - at the correct site - marked ideally prior the patient is transferred to the OT area		
Check in Medical records preferably in Progress Note - Marking to be done by operating surgeon or member of his/ her team		
Check that the anaesthesiologist is checking for patients undergoing any operative/ invasive procedure to have the site marked (if indicated)		
PAC, Anaesthesia consent, intra-operative monitoring, immediate pre-op re-evaluation, post-operative anaesthesia plan of care		
Check whether Preoperative checklist is filled completely and signed		
<b>IPSG5(Reduce the risk of healthcare associated infection)</b>		
Check the display of Hand Hygiene Poster(s) to be present at all handwash areas		
Check whether alcohol hand rub is present next to every patient bed.		
Check that all material (soaps, alcohol rub, tissue papers) are present in requisite amounts at required places.		
Check whether Nurses are doing hand hygiene as per WHO guidelines		
Check whether Doctors are doing hand hygiene as per WHO guidelines		
Check whether GDA/ Housekeeping are doing hand hygiene as per WHO guidelines		
<b>IPSG6(Reduce the risk of patient falls)</b>		
Patient Fall Risk Assessment by modifies morse scale		
Check in Patient Washrooms: - Floor to be dry - Presence of grab bar		
Check for presence of Side rails inpatient beds		
check Vulnerable patients towards prevention of falls		
Patient being transferred with seatbelt on in wheelchair		
Nurse call bell functional		
Patient and family education		



## (Section -B)

### Checklist for Awareness Amongst Nursing Staff

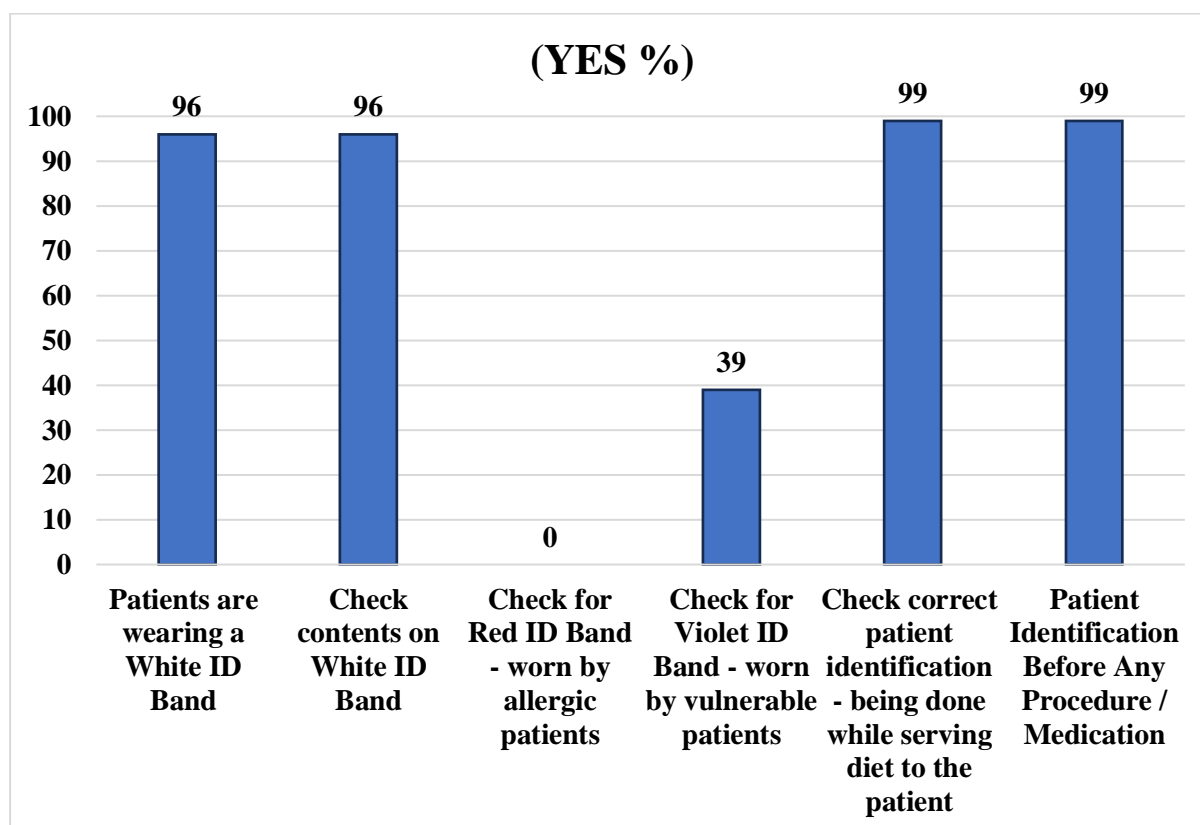
<b>(Questionaries for Interview)</b>		
<b>IPSG1(Identify the patients correctly)</b>		
How many identifiers do you use to identify patients and what are they?		
Where are the white, red & violet ID bands placed on the patient?		
Where do you place the ID band on a patient with missing limb(s)?		
<b>IPSG2(Improve effective communication)</b>		
What will you do if you receive the information on Critical Test Result?		
How do you give handovers on shift change?		
<b>IPSG3(Improve the safety of high alert medication)</b>		
What are High Alert Medications with 2 examples & what is the criteria for their storage?		
What is "double check"?		
What is near expiry of drugs?		
LASA stands for?		
What are lookalike drugs & sound alike drugs with 2 examples & what is the criteria for their storage?		
Give examples of concentrated electrolytes?		
<b>IPSG4(Ensure correct site, correct procedure and correct patient surgery)</b>		
What is surgical safety checklist?		
What is "Sign in" , "Time out" and "Sign out" ?		
When and where is the site marked?		
What do you understand by Preoperative checklist?		
Who performs the surgical time out?		
<b>IPSG5(Reduce the risk of healthcare associated infection)</b>		
What are the 5 moments of hand hygiene?		
Demonstrate the steps of Hand wash with soap and water. (11 steps)		
Demonstrate the steps of Hand hygiene with alcohol-based formulations. (8 steps)		
Check the awareness of HAIs: CLABSI, CAUTI, VAP & SSI		

<b>IPSG6(Reduce the risk of patient falls)</b>		
Which scale of fall risk assessment is used for adult patients?		
Which patients are prone to fall risk & name the medications that can contribute to patient fall (any 2)?		
While transferring patients on wheel chair, one should ensure that ?		
What are the steps to be taken to prevent patient falls (give any 2 examples)?		
Paediatric Fall Risk Assessment - Name the scale - Mention the age group is it applicable to		

## Results (Data Validation and Analysis)

### (Section-A)

#### IPSG 1 (Identify the patients correctly)



**DATA ANALYSIS:** In this study, data from 100 patients in the wards and ICU were meticulously analysed to ensure comprehensive patient identification and safety protocols were followed. It was observed that 96% of the patients were wearing white identification bands, which included critical information such as the UHID number, IP number, the patient's first and last name, age, and sex. This high percentage indicates a robust adherence to the hospital's identification policy for the majority of the patient population. Additionally, 39% of the patients were identified as vulnerable and were therefore assigned violet bands; however, it was noted that 7% of these vulnerable patients were found without their designated bands, highlighting an area for potential improvement in monitoring and compliance. Despite this, the overall process of patient identification before any procedure or medication administration was remarkably effective, with a

compliance rate of 99%. This high level of adherence underscores the commitment to patient safety and the effectiveness of the hospital's identification protocols. These findings are crucial for informing future strategies to ensure that all patients, especially the vulnerable ones, are consistently and accurately identified.

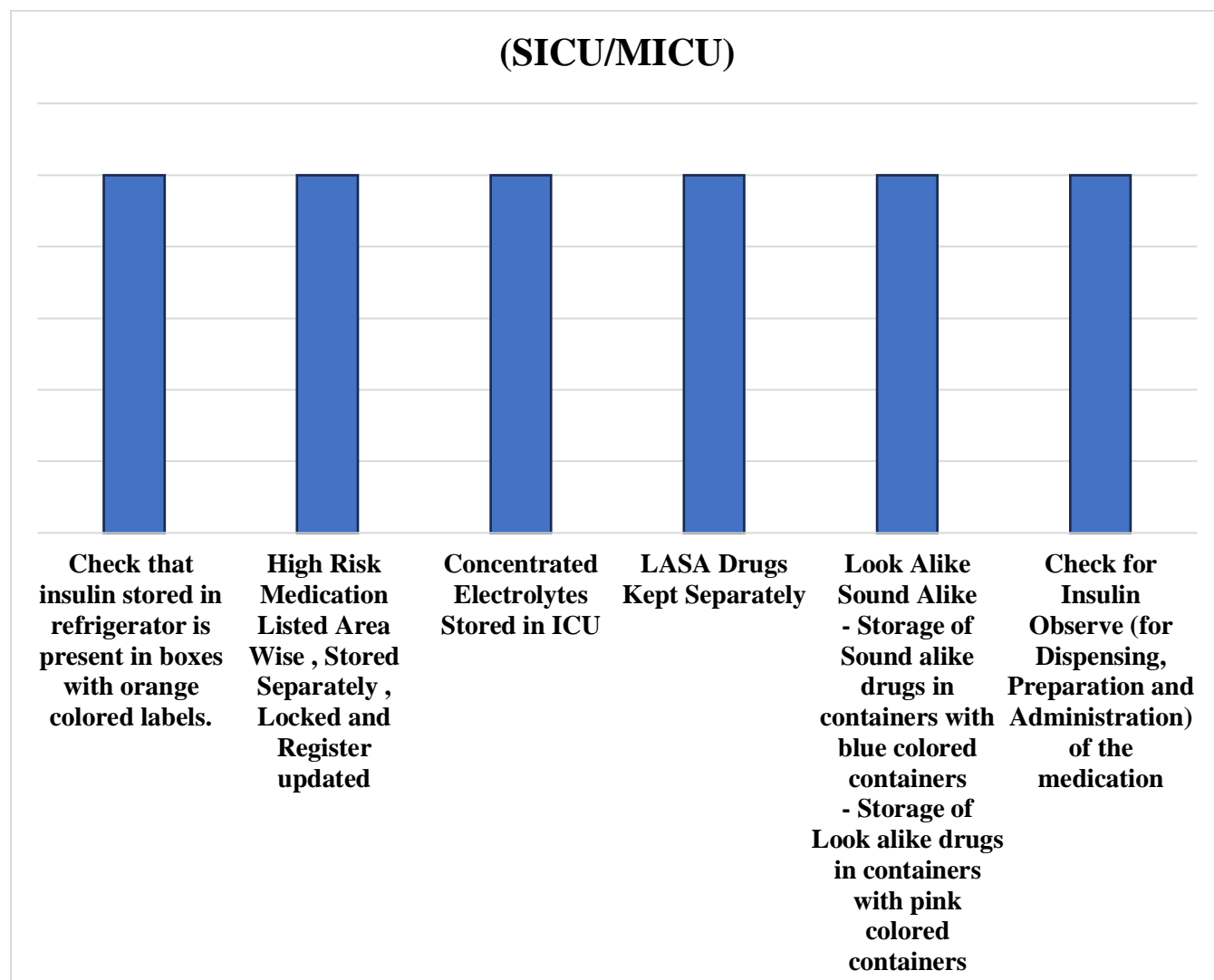
## IPSG 2 (Improve effective communication)

Critical Value Report														
S.No	Date	Patient Details (Max ID)	Critical Test Value	Critical Test Result Information				Escalated to					Counter Check Process	
				Informed by (Name)	Time	Information Received by (Name)	Read back policy followed (Yes/No)	Name of the Doctor informed	Time	Advice	Action Taken	Read back policy followed (Yes/No)	Documentation in patient file/CPRS (Yes/No)	Counter signed by Shift Nursing Senior
1	18-03-2024	SKCT.585072	HB-6.5	Imran	1:25 PM	Jeny	Yes	Dr. Alka	1:35 PM	Nothing to do	Shifted to Dialysis	Yes	Yes	Signature signed by Nursing Staff
2	05-04-2024	SKCT.550727	K <sup>+</sup> - 5.90	Imran	8:35 AM	Jeny	Yes	Dr. Tushar Aditya	8:40 AM	Potassium Connection Advised	Potassium Connection Done	Yes	Yes	Signature signed by Nursing Staff
3	07-04-2024	SKMS.350843	Urea- 129.8 Creatinine- 6.6	Sathyam	6:10 AM	Aradhna	Yes	Dr. Arnab	6:15 AM	Advised to inform Nephrology at 6:15 AM	Informed Nephrology doctor to 6:20 AM	Yes	Yes	Signature signed by Nursing Staff
4	19-04-2024	SKDD.606040	TLC 22.7	Rihan	7:00 AM	Roma	Yes	Dr. Arnab	7:05 AM	Repeat sample to be send at 7:10 AM	Repeat sample send at 7:15 AM	Yes	Yes	Signature signed by Nursing Staff
5	03-05-2024	EHPG.385264	HB-5.2 TLC-1.4 P/C-20K	Ajay	7:10 PM	Jenith	Yes	Dr. Adil	7:20 PM	4 Unit RDP 2 Unit LDPRBC to be transfused	Yes	Yes	Yes	Signature signed by Nursing Staff
6	16-05-2024	SKCT.593119	Urea- 115 Creatinine- 6.1	Imran	9:00 AM	Roma	Yes	Dr. Mehnaz	9:03 AM	Advised to inform Nephrology at 9:03 AM	Informed Nephrology doctor to 9:07 AM	Yes	Yes	Signature signed by Nursing Staff
7	01-06-2024	SHPP.218358	TROPI 0.038	Imran	10:40 AM	Neha	Yes	Dr. Alka Bhasin	10:50 AM	Nothing	Informed to Doctor	Yes	Yes	Signature signed by Nursing Staff
8	03-06-2024	SKCT.87153	Platelet- 40	Sathyam	8:10 AM	Moninur	Yes	Dr. Rajesh	8:13 AM	Advised to inform primary team at 8:13 AM	Informed primary team at 8:15 AM	Yes	Yes	Signature signed by Nursing Staff
9	06-06-2024	BLKH.966426	HB-6.1	Sathyam	7:57 AM	Jeny	Yes	Dr. N.C Peter	8:10 AM	Blood Transfusion- 1 Unit given	BT done & informed to Dr.	Yes	Yes	Signature signed by Nursing Staff
10	17-06-2024	SKCT.600571	Na <sup>+</sup> = 8.09	Rihana	6:20 AM	Roma	Yes	Dr. Rajesh	6:23 AM	Repeat sample to be send at 6:23 AM	Repeat sample send at 6:28 AM	Yes	Yes	Signature signed by Nursing Staff

**DATA ANALYSIS:** Based on the randomly collected data of 10 patients from the critical value register in the wards and ICU, it was observed that the coordination between nursing staff and doctors was timely and effective. This seamless communication ensured that critical patient information was promptly shared, allowing for quick decision-making and appropriate medical interventions. The timely collaboration between the healthcare team contributed significantly to maintaining patient safety and improving outcomes in these critical care settings. Additionally, the data highlighted the efficiency of the established protocols, as the quick relay of critical values helped prevent potential complications. This level of coordination also fostered a collaborative environment, where both nurses and doctors were able to work together harmoniously, reinforcing the overall quality of patient care.

## IPSG 3 (Improve the safety of high alert medication)

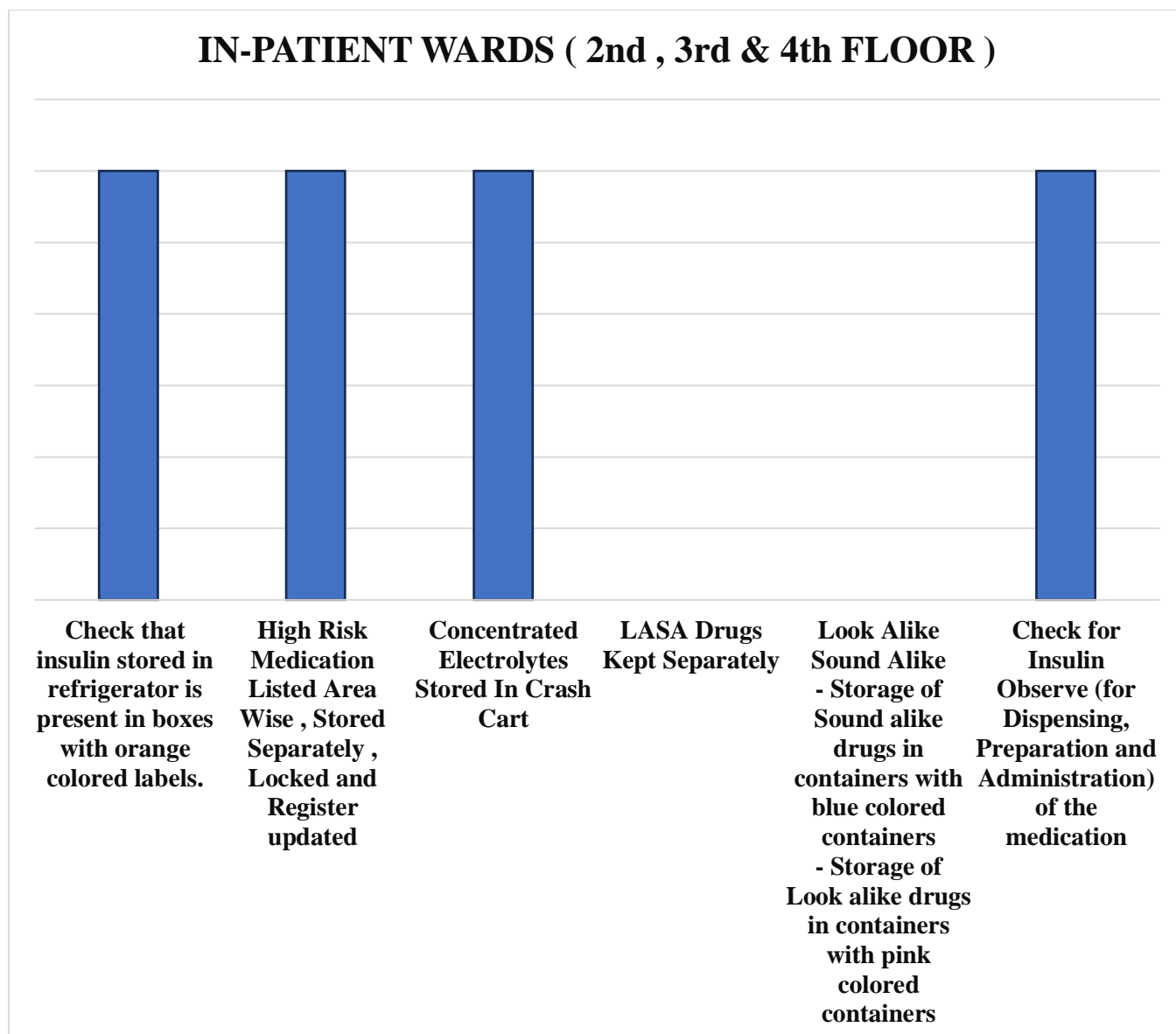
A)



**DATA ANALYSIS:** It was observed that in the department of SICU and MICU 100% of IPSG 3 was found to be compliance. The responses show the presence of the particular medications in designated department particularly in SICU and MICU were stored properly.

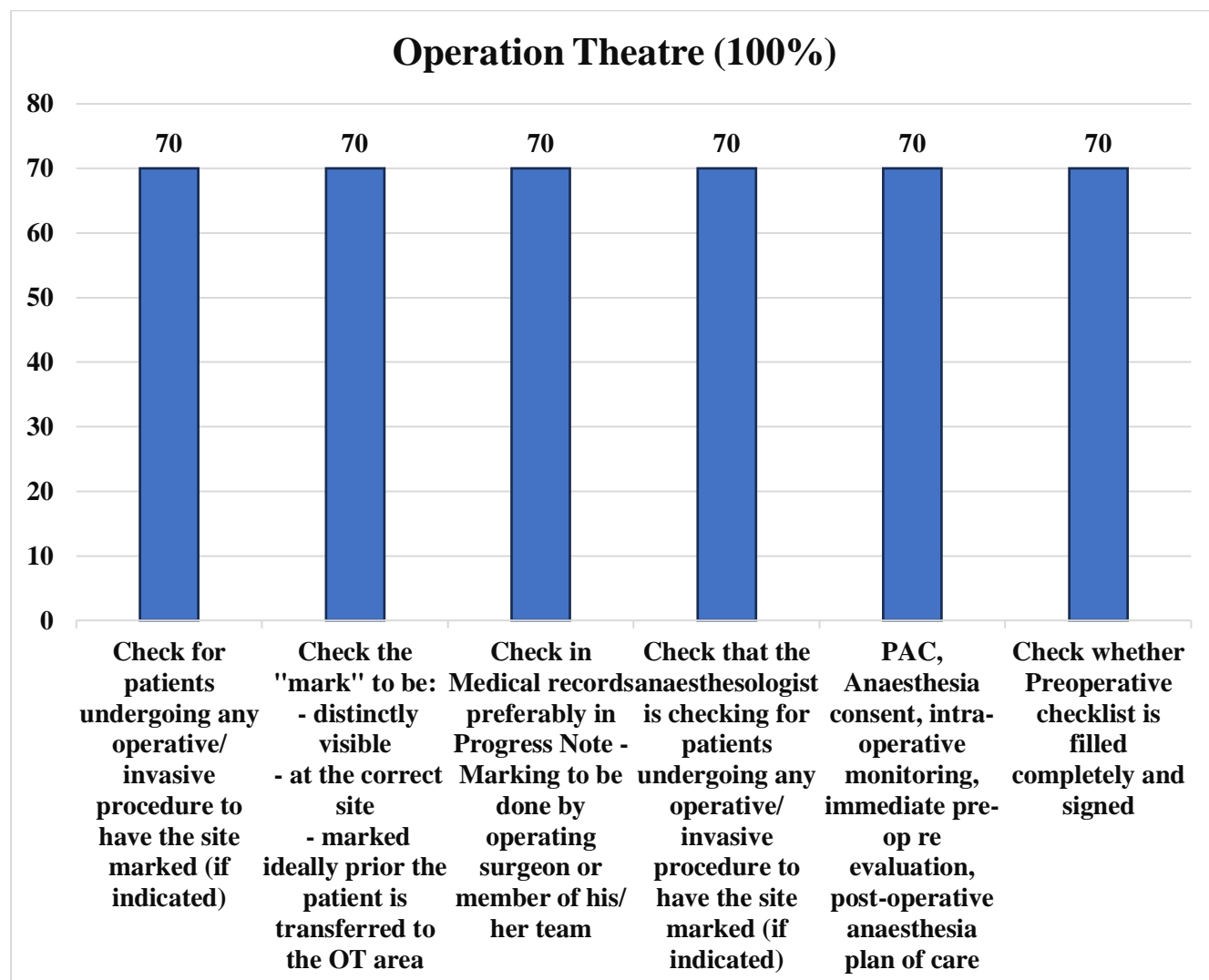


B)



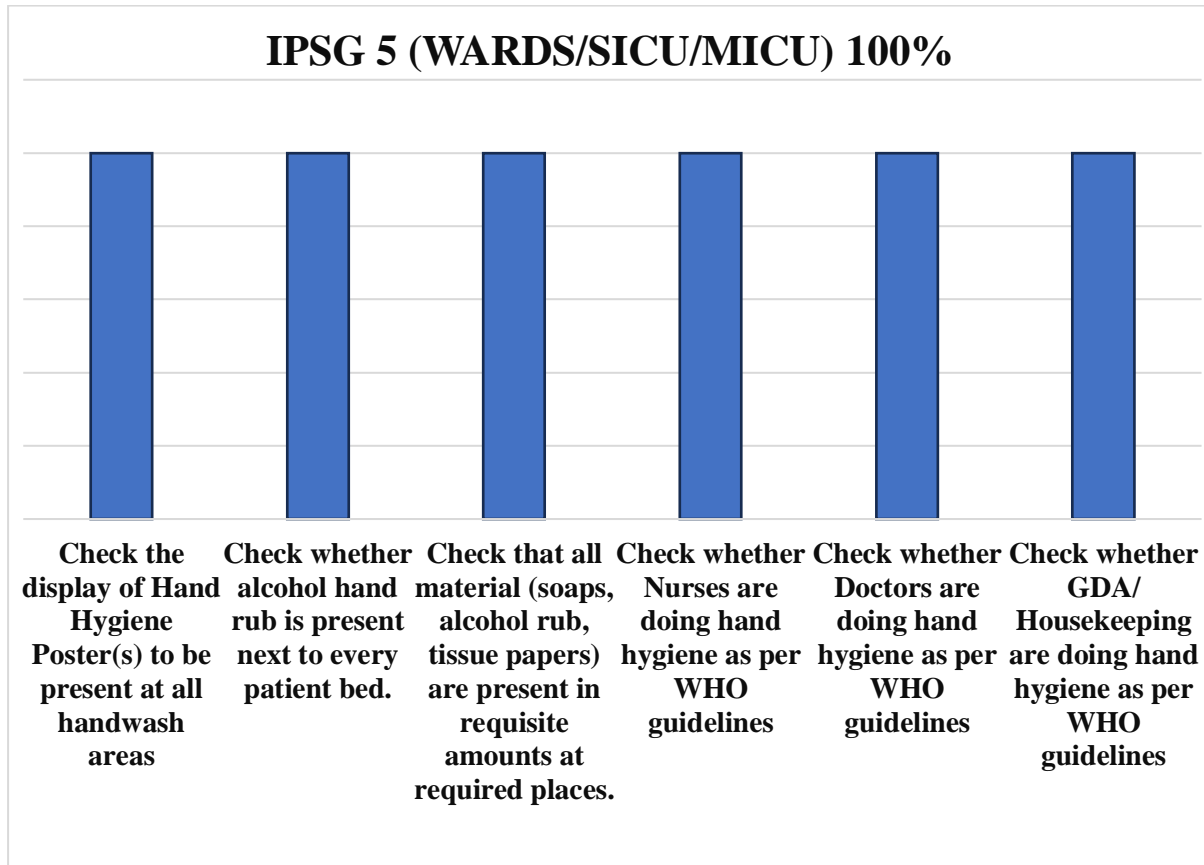
**DATA ANALYSIS:** It was observed that in the inpatient wards, concentrated electrolytes were stored within the crash cart only and there was no storage of LASA drugs available in the wards.

## IPSG 4 (Ensure correct site, correct procedure and correct patient surgery)



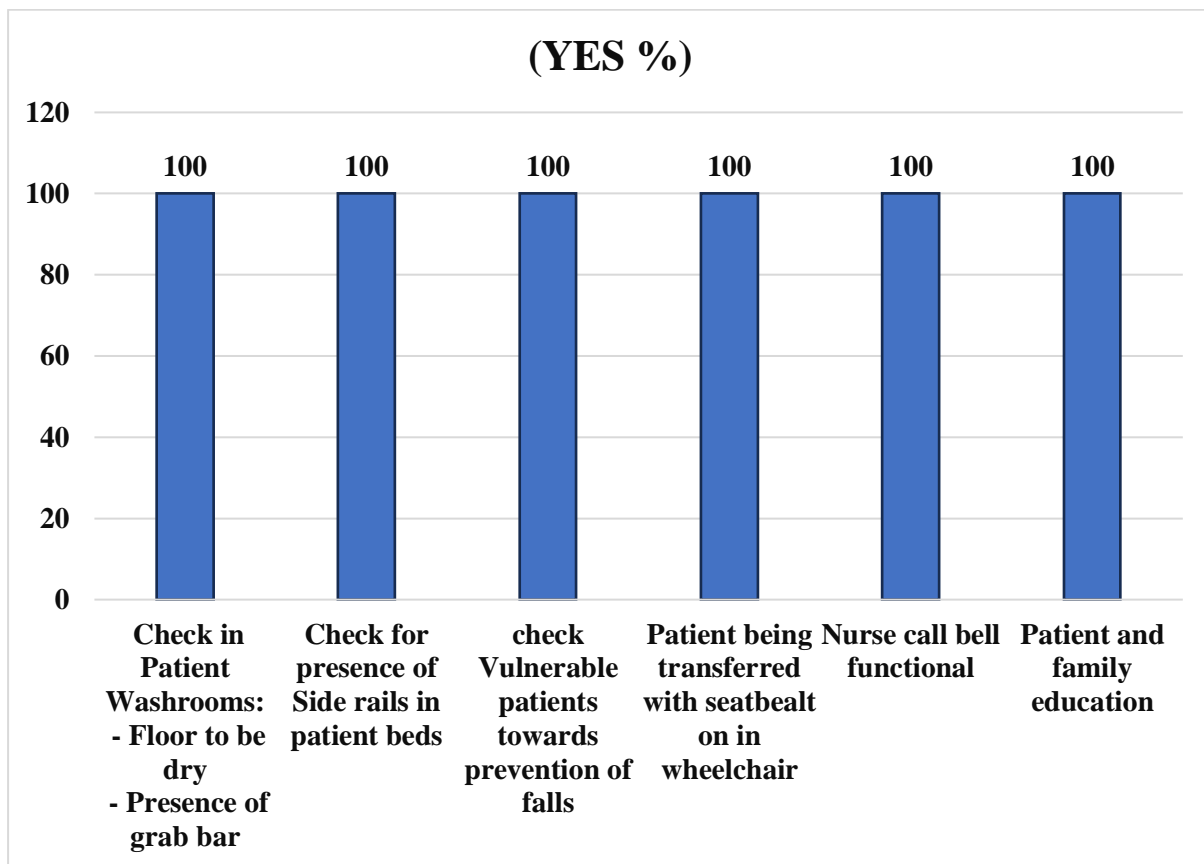
**DATA ANALYSIS:** A total of 70 patients from the operation theatre (OT) were analysed, revealing a 100% compliance rate with International Patient Safety Goal (IPSG) 4. This goal, which focuses on ensuring safe surgery, was meticulously adhered to in all observed cases. The flawless compliance demonstrates the operation theatre team's unwavering commitment to patient safety and adherence to best practices. Such consistency in following IPSG 4 protocols not only underscores the effectiveness of the safety measures in place but also highlights the dedication of the surgical staff to maintaining the highest standards of patient care. This remarkable achievement serves as a testament to the rigorous training and procedural discipline upheld within the operation theatre.

## IPSG 5 (Reduce the risk of healthcare associated infection)



**DATA ANALYSIS:** It was observed that hand hygiene compliance with International Patient Safety Goal (IPSG) 5 was at 100% in the inpatient wards, Surgical Intensive Care Unit (SICU), and Medical Intensive Care Unit (MICU). This impeccable adherence to hand hygiene protocols reflects the healthcare staff's dedication to preventing infections and ensuring patient safety across all these units. The consistent application of these hygiene practices not only underscores the effectiveness of the training programs but also highlights the staff's commitment to maintaining a sterile and safe environment for all patients. Such outstanding compliance is a testament to the rigorous standards and vigilant practices maintained within the hospital, significantly contributing to improved patient outcomes and overall healthcare quality.

## IPSG 6 (Reduce the risk of patient falls)

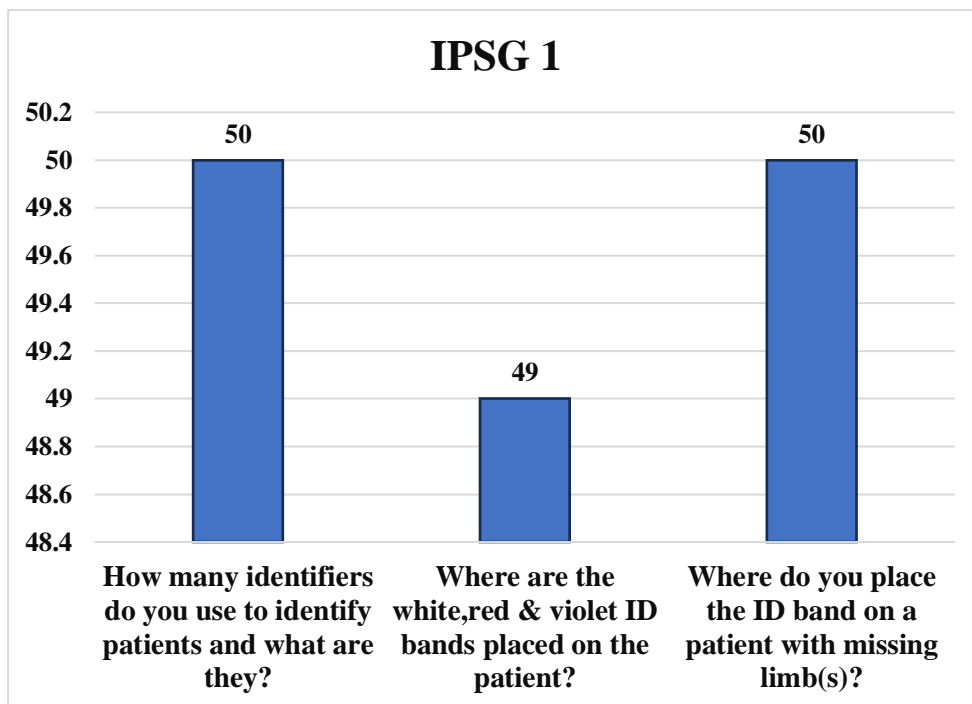


**DATA ANALYSIS:** It was observed that there was 100% compliance with International Patient Safety Goal (IPSG) 6 for preventing patient falls in the inpatient wards, Surgical Intensive Care Unit (SICU), and Medical Intensive Care Unit (MICU). This perfect adherence indicates that the protocols and measures put in place to prevent falls are being meticulously followed by the healthcare staff. The rigorous implementation of these safety practices reflects the hospital's strong commitment to patient safety and proactive risk management. By consistently applying these preventative measures, the staff has effectively minimized the risk of patient falls, thereby enhancing the overall safety and quality of care provided in these critical areas.

## (Section-B)

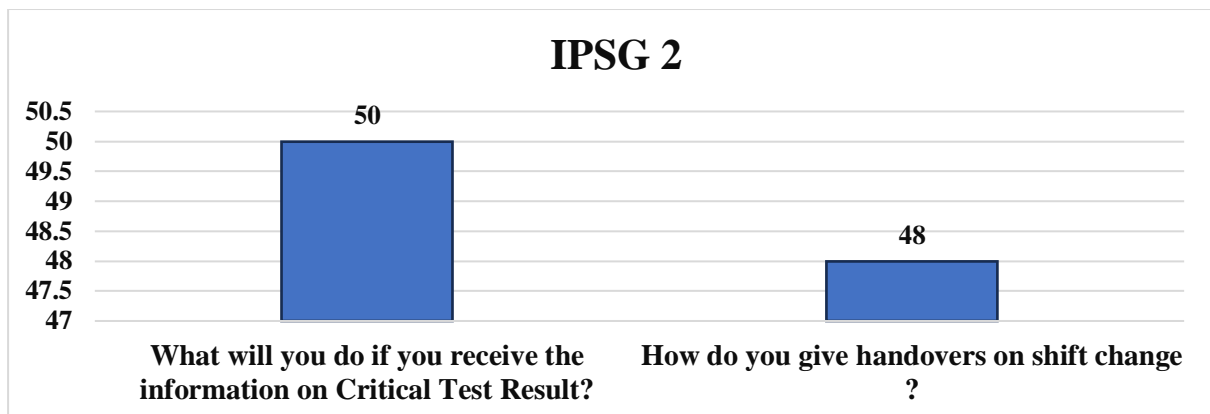
### Nursing Staff's Awareness of International Patient Safety Goals

#### IPSG 1 (Identify the patients correctly)



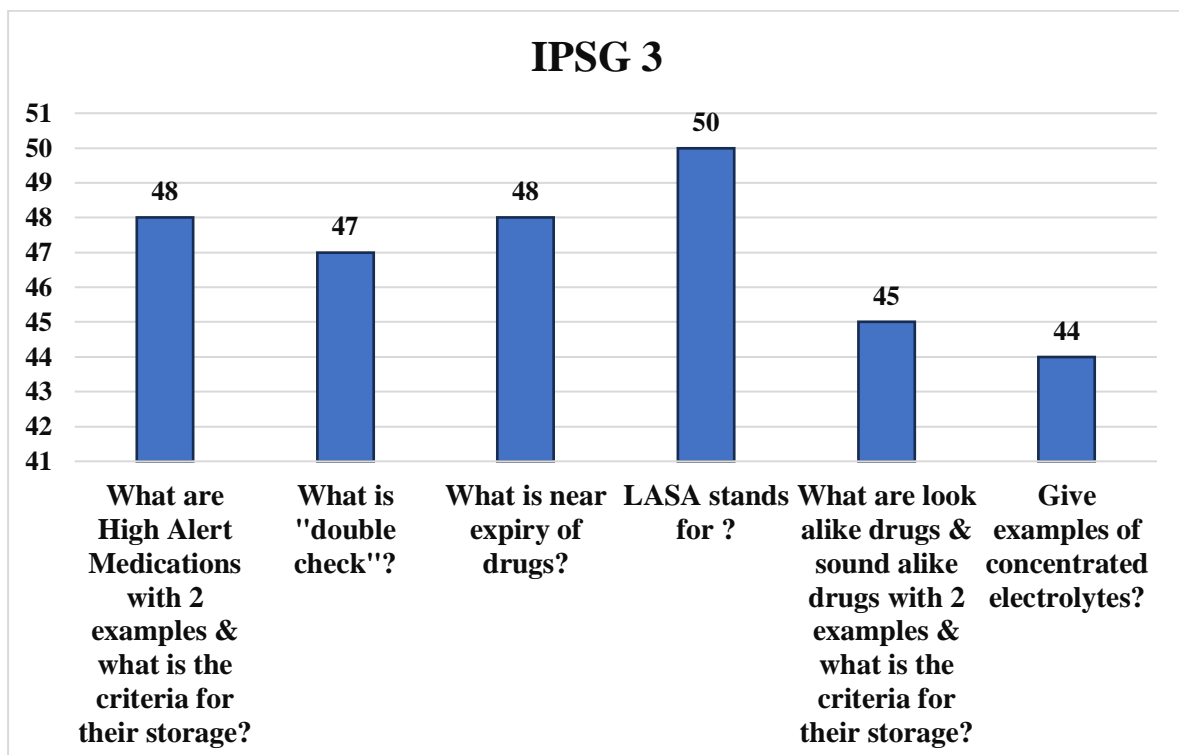
Interviewed 50 nursing staff to analyze their understanding of IPSG 1. I observed that they are 100 % Knowledgeable in patient identification and the proper placement of ID bands on patients with missing limbs. Additionally, 99% accurately identified the placement of white, red, and violet ID bands.

## IPSG 2 (Improve effective communication)



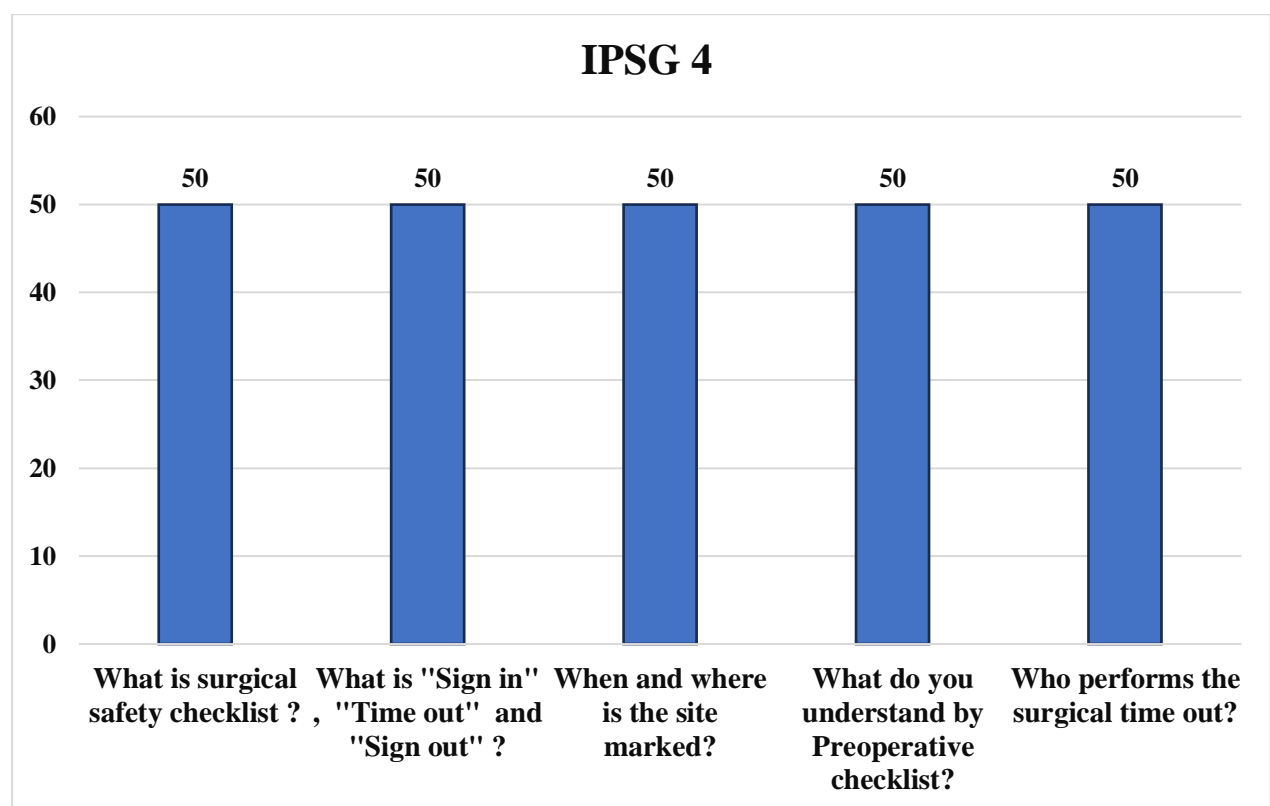
Interviewed 50 nursing staff to analyze their understanding of IPSG 2 and confirmed that all are skilled in the procedure for communicating critical test result information. Therefore, 98% of the staff were knew about the appropriate handover protocol during shift changes.

## IPSG 3 (Improve the safety of high alert medication)



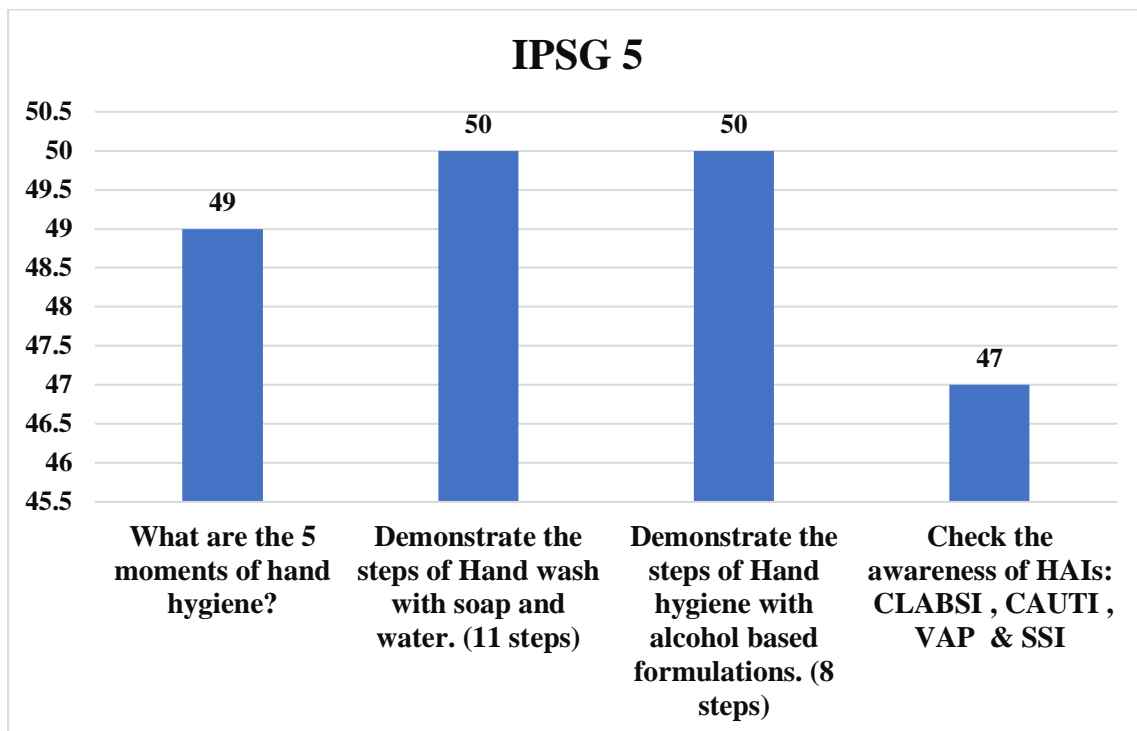
Interviewed 50 nursing staff to analyze their understanding of IPSG 3 and I observed 98% of the nursing staff understands about high-alert medication examples and their storage criteria. Additionally, 97% understand the concept of "double check," 98% are aware of near expiry drugs, all are familiar with LASA's full form, 95% can provide LASA examples and their storage criteria, and 94% can list examples of concentrated electrolytes.

#### **IPSG 4 (Ensure correct site, correct procedure and correct patient surgery)**



Interviewed 50 nursing staff to analyze their understanding of IPSG 4 and entire nursing staff is well-versed in the surgical safety checklist, which includes "Sign in," "Time out," and "Sign-out" procedures, site marking protocols, preoperative checklists, and about the conducting surgical time-outs.

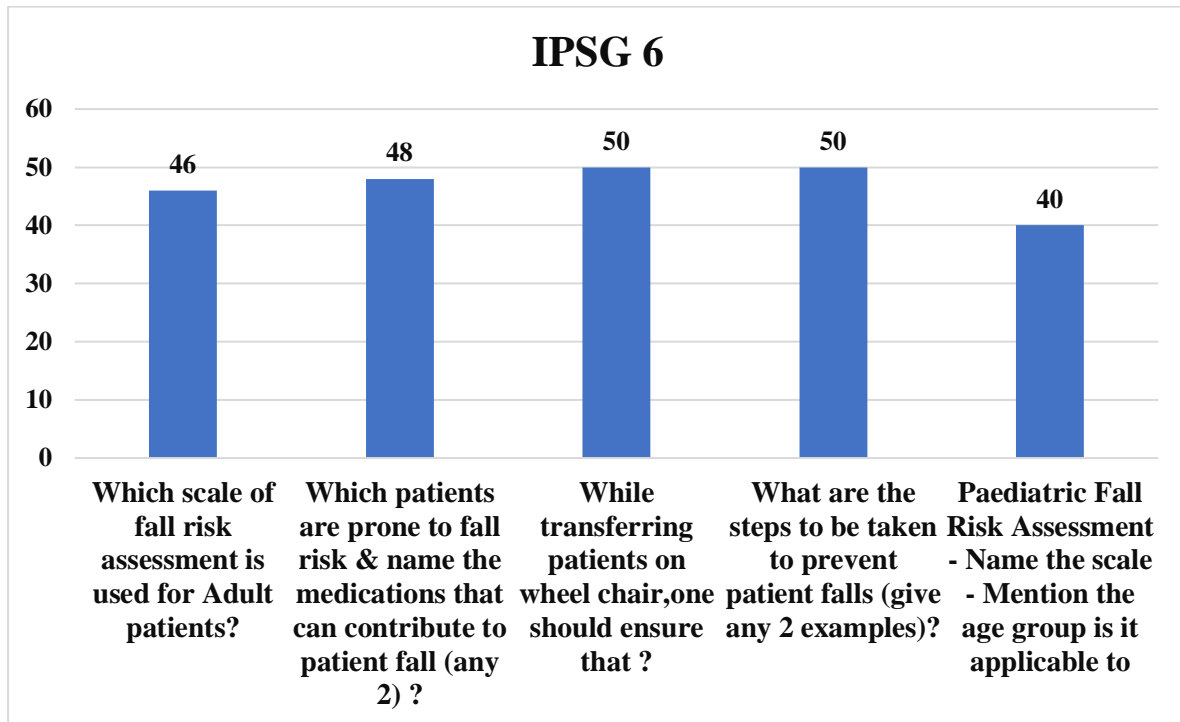
## IPSG 5 (Reduce the risk of healthcare associated infection)



Interviewed 50 nursing staff to analyze their understanding of IPSG 5 and 99% of the nursing staff are familiar with the five moments of hand hygiene, and 100% demonstrated about all the steps in hand hygiene, including washing with soap and water and alcohol-based formulations. Additionally, 97% are aware of Hospital Acquired Infections such as CLABSI, CAUTI, VAP, and SSI.



## IPSG 6 (Reduce the risk of patient falls)



Interviewed 50 nursing staff to analyze their understanding of IPSG 6 and 96% of the nursing staff are familiar with the scale used for assessing fall risk in adult patients. 98% identified medications contributing to patient falls, while 100% understand preventive measures to ensure patient safety during wheelchair transfers and overall fall prevention. Additionally, only 90% knows about the scale and age group for pediatrics fall risk assessment.

## Discussion

### **1) According to the data collected high compliance areas from the study :**

- Patient Identification Correctly (IPSG 1): The vast majority of patients were observed to be wearing white ID bands containing essential information, ensuring accurate identification before procedures and medication administration.
- Medication Safety (IPSG 3): SICU and MICU demonstrated outstanding compliance in storing medications properly.
- Surgical Safety (IPSG 4): The operation theater followed IPSG 4 guidelines perfectly, showing strong commitment to surgical safety protocols.
- Hand Hygiene (IPSG 5) and Falls Prevention (IPSG 6): Inpatient wards, SICU, and MICU achieved full compliance with IPSG 5 and IPSG 6 standards, ensuring effective infection control maintained by the hospital.
- Compliance with IPSG 2 was good. The critical value report register showed quick communication between receiving information from nursing staff and informing the doctor, with well-documented advice and actions taken.

**2) Areas for Improvement:** Violet Band Usage (IPSG 1): Some vulnerable patients were not wearing violet bands, making it challenging to identify those requiring special attention and Medication Storage (IPSG 3): Inpatient wards only had concentrated electrolytes in crash carts and no LASA drugs in ward storage, showing a need for better medication storage practices.

**3) The nursing staff at Max Smart Super Specialty Hospital:** Show strong knowledge and compliance to International Patient Safety Goals (IPSG). They understand patient identification, critical test result communication, medication safety, surgical protocols, hand hygiene, and fall prevention well. However, they could improve in consistently applying knowledge about pediatric fall risk assessment and ensuring uniform compliance to protocols for LASA drugs and concentrated electrolytes. Overall, the hospital meets high standards in IPSG compliance, with potential for targeted training to further enhance specific areas and maintain excellent patient safety throughout all departments.

## Conclusion

Accurate patient identification is crucial for minimizing fall risks during hospital stays. This can be achieved by using at least two identifiers and ensuring that all patients, especially those who are vulnerable, are wearing appropriate identification bands.

To improve awareness of the International Patient Safety Goals (IPSG) among nursing staff, it is essential to conduct ongoing evaluations both before and after training sessions. Education programs should include specialized modules focused specifically on patient safety to ensure that training is thorough and effective.

Patient safety is a cornerstone of high-quality healthcare delivery. Nurses have a pivotal role in monitoring and coordinating care to prevent adverse outcomes. It is vital to assess how nursing practices contribute to positive health indicators, such as enhanced self-care, to ensure that patient safety is effectively maintained.

Ensuring patient safety is fundamental to the provision of excellent healthcare. Nurses are crucial in overseeing care to avoid potential issues. Evaluating the impact of nursing care on positive health outcomes, like improved self-care, is essential to measure the effectiveness of safety practices.

Although compliance rates with safety protocols are generally satisfactory, hospitals must strive for continual improvement. Staff adherence to safety procedures can be inconsistent due to insufficient training or high workload pressures, highlighting the need for ongoing efforts to enhance compliance.

In summary, Max Smart Super Specialty Hospital shows a strong commitment to adhering to most International Patient Safety Goals. However, it is crucial to maintain ongoing training and reinforcement to ensure that all departments consistently follow these standards. By addressing these areas, the hospital can further enhance patient safety, improve the quality of care, and maintain high international standards in healthcare delivery.

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