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Original Research Paper

Emergency Medicine

AWARENESS AND COMPREHENSION AMONG THE EMERGENCY STAFF ABOUT SENSITIZATION OF INTERNATIONAL PATIENT SAFETY GOAL

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ABSTRACT

Background: The global focus on patient safety has significantly increased since the late 1990s, resulting in a notable shift in the perception of patient safety. Originally a topic of limited scholarly attention, it has now become an integral part of healthcare systems across the globe. The International Patient Safety Goals (IPSG) are crucial directives established by Joint Commission International to enhance the provision of secure and exceptional patient care. Ensuring patient safety is the duty of all healthcare staff, whether they are directly or indirectly involved in patient care. **Methods:** This prospective study employed stratified sampling to determine the required number of doctors, nurses, and GDS. A validated questionnaire was employed to evaluate the level of awareness among healthcare staff regarding the IPSG. Each successful answer was allocated a score of '1', while bad responses received a score of '0'. The data was gathered and organized in a Microsoft Excel database. Analysed data descriptively. **Results:** Doctors had the highest post-audit compliance (84.85%), followed by nurses (75.64%) and GDA (67.11%). The study members' compliance rates were significant: 56.14% pre-audit and 71.93% post-audit for IPSG A, and 54.39% and 3.68% for IPSG 1B. The compliance rate of study participants was considerable for IPSG 2C and IPSG 2D, with pre-audit compliance of 68.42% and post-audit compliance of 80.70% and 63.16%. The compliance rate of IPSG 4A research participants was significant. Before the audit, IPSG 4A compliance was 64.91% and after, 80.70%. IPSG 4B compliance was 59.65% and after, 80.70% **Conclusions:** Current research shows that organizationally informing professionals about patient safety goals improves outcomes. To strengthen safety culture, a thorough framework can be built. Regular noncompliance reviews as part of continuous assessment can improve compliance. This improves patient safety, quality of life, and medical errors over time.

KEYWORDS : Healthcare-associated infections, Look-alike/sound-alike medications, Patient identification

INTRODUCTION

Quality health care is commonly seen as a broad concept that includes the safety of patients. Health care quality is measured by self-care, health-promoting behaviours, health-related quality of life, perception of being properly cared for, and symptom control. Quality care should be safe, effective, patient-centered, timely, efficient, and equitable. Thus, safety underpins all quality care.[1,2,3]

Preventing patient injury is patient safety. It addresses the health care delivery system that prevents and learns from errors. Patient safety practices should reduce medical care-related adverse occurrences across diagnoses and conditions. These practices include using appropriate prophylaxis to prevent venous thromboembolism in at-risk patients, prescribing perioperative beta-blockers to prevent morbidity and mortality, using sterile barriers when placing central intravenous catheters, using antibiotic prophylaxis in surgical patients to prevent postoperative infections, and informing patients about informed consent. Continuous suction of subglottic secretions to prevent ventilator-associated pneumonia, pressure-relieving bedding to prevent ulcers Antibiotic-impregnated central venous catheters, and proper nutrition for critically ill and surgical patients reduce catheter-related infections.[4] Simulators usage, bar coding, computerized physician order entry, and crew resource management can help prevent patient safety errors and improve healthcare processes. Research has been done in these areas, but there are still many opportunities for more.[5,6] Healthcare systems worldwide spend $42 billion on medical errors. These issues include delivering inappropriate drugs to patients with the same name without checking two identifiers, Not following the read-back confirm and record rules, and giving patients the wrong dose of medication after consulting with consultants over the phone. Lack of hand cleanliness causes nosocomial infections. Fall risk is greater in the elderly and children, which is common in emergency rooms.[7]

The current study has been taken up with an intent to study the impact of awareness and assessment of comprehension on the emergency staff regarding the sensitization. In order to examine the discrepancies and problems that result in the failure to adhere to the International Patient Safety Goals (IPSG), In order to achieve complete adherence to safety protocols and eliminate any occurrences of accidents or mishaps, establish clear objectives and facilitate the provision of feedback in order to optimize safety accomplishments.

METHODS

A prospective comparative study was conducted to assess awareness and comprehension among the emergency of staff Emergency Department of Super specialty Hospital Saket, New Delhi. All study participants meeting the inclusion criteria and none of the exclusion criteria were enrolled in the study after taking their voluntary consent for participating in the study. The patients gave informed consent was taken before the initiation of the study.

a) Inclusion criteria:

- All doctors, nurses, and General duty assistants in Max Smart Emergency.
- Both males and females.
- Age more than 18 years old
- Employed for a minimum of 2 years in the healthcare industry
- Those who gave consent form.

b) Exclusion criteria:

- Employed < 2years in the healthcare industry
- Those who didn't agree to give consent form

Methodology

Study Design: Quality Improvement Project

Common quality improvement frameworks include Six Sigma, Lean, and the Model for Improvement. These models are contrasted, with a focus on the Model for Improvement, because it is widely used and applicable to a variety of quality-of-care problems without advanced training. It involves three steps: setting aims to focus improvement, choosing a balanced set of measures to determine if improvement occurs, and testing new ideas to change the current process. The newer ideas as mentioned above are assessed using Plan-Do-Study-Act cycles, in which knowledge is improvised by testing changes and reflecting on their effect.

Data collection

The survey question was given to the participants. The responses were limited to 2-point Likert-like scale. For every correct answer, one mark was awarded. For incomplete/ partial answer, zero mark was given. The compliance at the individual level was assessed.

Statistical analysis: Data was analyzed using SPSS software. Data were expressed as Mean ± SD and p value $<0.05^*$ was considered statistically significant.

RESULTS

The following study shows that, most of the participants were from age group of 31 to 40 years (31.58%), with a female predominance (57.8%) and majority of them were GDS (59.7%), respectively. (Figure 1,2,&3).

In total there were 16 (28.07%) with less than one year experience, 18 (31.58%) with one-to-four-year experience, 15 (26.32%) with four to seven years' experience and 8 (14.04%) with eight years and above experience.

Table 1

IPSG1 A: The distribution of study participants according to How any identifiers do you use to identify and what are they was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 57.1%, GDA was 55.5% and nurses was 55.8%.

IPSG1 B: The distribution of study participants according to When all will you identify patients was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 44.4% and nurses was 52.9%

IPSG1 C: The distribution of study participants according to When is red ID band placed on the patient was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 55.5% and nurses was 64.7%.

IPSG2 A: The distribution of study participants according to in which situation are verbal orders allowed and what is "Read back policy" in verbal orders? Explain the steps was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 61.7%.

IPSG2 B: The distribution of study participants according to Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 66.6% and nurses was 70.5%.

IPSG2 C: The distribution of study participants according to What will you do if you receive / diagnose the information on Critical Test result was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 66.6% and nurses was 70.5%.

IPSG2 D: The distribution of study participants according to When and how are you supposed to give/ receive handover was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 33.3% and nurses was 67.6%.

IPSG3 A: The distribution of study participants according to What are high alert medication with Two examples and what is the criteria for their storage was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 55.5% and nurses was 58.8%.

IPSG3 B: The distribution of study participants according to What are look-alike drugs and sound alike drugs with 2 examples and what is the criteria for their storage was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 61.7%.

IPSG3 C: The distribution of study participants according to What are narcotics with two examples and why are they put in a separate category was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 44.4% and nurses was 64.7%.

IPSG3 D: The distribution of study participants according to How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in CRPS) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 55.5% and nurses was 61.7%.

IPSG3 E: The distribution of study participants according to How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 66.6% and nurses was 52.9%.

IPSG3 F: The distribution of study participants according to Give examples on Conc electrolytes was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 66.6% and nurses was 61.7%.

IPSG3 G: The distribution of study participants according to Are you familiar with the approved and do not use abbreviation list was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 55.5% and nurses was 55.8%.

IPSG3 H: The distribution of study participants according to What are the minimum requirements of a good prescription was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 55.5% and nurses was

67.7%.

IPSG4 A: The distribution of study participants according to Is site marking done before doing any procedure was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 44.4% and nurses was 67.6%.

IPSG4 B: The distribution of study participants according to What are aseptic precautions taken in ER before the procedure was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 55.5% and nurses was 58.8%.

IPSG5 A: The distribution of study participants according to What are the 5 moments of hand hygiene was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 57.1%, GDA was 44.4% and nurses was 61.7%.

IPSG5 B: The distribution of study participants according to Demonstrate the steps of hand wash with soap and water (11 steps) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 33.3% and nurses was 55.8%.

IPSG5 C: The distribution of study participants according to Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 44.4% and nurses was 52.9%.

IPSG5 D: The distribution of study participants according to Check the awareness of HAI prevention bundle: VAP, CLABSI, AUTI was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 44.4% and nurses was 52.9%.

IPSG5 E: The distribution of study participants according to Check for the awareness of indication/Justification Forms was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 44.4% and nurses was 50%.

IPSG5 F: The distribution of study participants according to How do you use the antibiogram while prescribing antibiotics was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 71.4%, GDA was 44.4% and nurses was 52.9%.

IPSG6 A: The distribution of study participants according to How to ensure patients fall prevention (Any two) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 64.2%, GDA was 55.5% and nurses was 55.8%.

IPSG6 B: The distribution of study participants according to Which are the medication that can contribute to patients fall was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 55.8%.

Table 2

IPSG1 A: The distribution of study participants according to How any identifiers do you use to identify and what are they was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 73.5%.

IPSG1 B: The distribution of study participants according to When all will you identify patients was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 66.6% and nurses was 70.5%.

IPSG1 C: The distribution of study participants according to When is red ID band placed on the patient was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 92.8%, GDA was 55.5% and nurses was 73.5%.

IPSG2 A: The distribution of study participants according to In which situation are verbal orders allowed and what is "Read back policy" in verbal orders? Explain the steps was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 55.5% and nurses was 70.5%.

IPSG2 B: The distribution of study participants according to Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 92.8%, GDA was 66.6% and nurses was 76.4%.

IPSG2 C: The distribution of study participants according to What will you do if you receive / diagnose the information on Critical Test result was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 92.8%, GDA was 66.6% and nurses was 79.4%.

IPSG2 D: The distribution of study participants according to When and how are you supposed to give/ receive handover was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 92.8%, GDA was 77.7% and nurses was 82.3%.

IPSG3 A: The distribution of study participants according to What are high alert medication with Two examples and what is the criteria for their storage was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 66.6% and nurses was 79.4%.

IPSG3 B: The distribution of study participants according to What are look-alike drugs and sound alike drugs with 2 examples and what is the criteria for their storage was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 66.6% and nurses was 76.4%.

IPSG3 C: The distribution of study participants according to What are narcotics with two examples and why are they put in a separate category was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 66.6% and nurses was 82.3%.

IPSG3 D: The distribution of study participants according to How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in CRPS) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%,

GDA was 55.5% and nurses was 73.5%.

IPSG3 E: The distribution of study participants according to How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics was compared across medical professionals using chi-square test. It was not found to be significant.

The compliance seen among doctors was 78.51%, GDA was 66.66% and nurses was 76.47%

IPSG3 F: The distribution of study participants according to Give examples on Conc electrolytes was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 77.7% and nurses was 79.4%.

IPSG3 G: The distribution of study participants according to Are you familiar with the approved and do not use abbreviation list was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 66.6% and nurses was 82.3%.

IPSG3 H: The distribution of study participants according to What are the minimum requirements of a good prescription was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 92.8%, GDA was 77.7% and nurses was 76.4%.

IPSG4 A: The distribution of study participants according to Is site marking done before doing any procedure was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 77.7% and nurses was 79.4%.

IPSG 4B: The distribution of study participants according to What are aseptic precautions taken in ER before the procedure was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 77.7% and nurses was 79.4%.

IPSG5 A: The distribution of study participants according to What are the 5 moments of hand hygiene was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 100%, GDA was 88.8% and nurses was 82.3%.

IPSG5 B: The distribution of study participants according to Demonstrate the steps of hand wash with soap and water (11 steps) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 77.7% and nurses was 79.4%.

IPSG5 C: The distribution of study participants according to Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 44.4% and nurses was 70.5%.

IPSG5 D: The distribution of study participants according to Check the awareness of HAI prevention bundle: VAP, CLABSI, AUTI was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 44.4% and nurses was 70.5%.

IPSG5 E: The distribution of study participants according to Check for the awareness of indication/Justification Forms was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 85.7%, GDA was 77.7% and nurses was 67.6%.

IPSG5 F: The distribution of study participants according to How do you use the antibiogram while prescribing antibiotics was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 66.6% and nurses was 64.7%.

IPSG6 A: The distribution of study participants according to How to ensure patients fall prevention (Any two) was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 70.5%.

IPSG6 B: The distribution of study participants according to Which are the medication that can contribute to patients fall was compared across medical professionals using chi-square test. It was not found to be significant. The compliance seen among doctors was 78.5%, GDA was 55.5% and nurses was 70.5%.

Table 3

IPSG1 A: The compliance rate of study participants according to how many identifiers do you use to identify and what are they?, were compared across pre-audit and post-audit using the chi-square test. It was found to be significant (p=0.038*). The pre-audit compliance was 56.1% and the audit was 71.9%, respectively.

IPSG1 B: The compliance rate of study participants according to, when all will you identify patients? was compared across pre-audit and post-audit using the chi-square test. It was found to be significant (p=0.025*). The pre-audit compliance was 54.3% and the post-audit was 73.6%, respectively.

IPSG1 C: The compliance rate of study participants according to When is red ID band placed on the patient was compared across pre-audit and post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 64.9% and the post-audit was 75.4%, respectively.

IPSG2 A: The compliance rate of study participants according to in which situation are verbal orders allowed and what is the "Read back policy" in verbal orders? Explain the steps was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 64.9% and the post-audit was 71.9%, respectively.

IPSG2 B: The compliance rate of study participants according to Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 70.1% and the post-audit was 78.9%, respectively.

IPSG2 C: The compliance rate of study participants according to What will you do if you receive/diagnose the information on Critical Test result was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 68.4% and the post-audit was 80.7%, respectively.

IPSG2 D: The compliance rate of study participants according to When and how are you supposed to give/ receive handover was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*).

The pre-audit compliance was 63.1% and the post-audit was 84.2%, respectively.

IPSG3 A: The compliance rate of study participants according to What are high alert medication with Two examples and what is the criteria for their storage was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 61.4% and the post-audit was 78.9%, respectively.

IPSG3 B: The compliance rate of study participants according to What are look alike drugs and sound alike drugs with 2 examples and what is the criteria for their storage was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 64.9% and the post-audit was 77.1%, respectively.

IPSG3 C: The compliance rate of study participants according to What are narcotics with two examples and why are they put in a separate category was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 64.9% and the post-audit was 80.7%, respectively.

IPSG3 D: The compliance rate of study participants according to How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in CRPS) was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 63.1% and the post-audit was 71.9%, respectively.

IPSG3 E: The compliance rate of study participants according to How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 59.6% and the post-audit was 75.4%, respectively.

IPSG3 F: The compliance rate of study participants according to Give examples on Conc electrolytes was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 63.1% and the post-audit was 78.9%, respectively.

IPSG3 G: The compliance rate of study participants according to Are you familiar with the approved and do not use abbreviation list was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 57.8% and the post-audit was 78.9%, respectively.

IPSG3 H: The compliance rate of study participants according to What are the minimum requirements of a good prescription was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 63.1% and the post-audit was 80.7%, respectively.

IPSG4 A: The compliance rate of study participants according to Is site marking done before doing any procedure was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.04*). The pre-audit compliance was 64.9% and the post-audit was 80.7%, respectively.

IPSG4 B: The compliance rate of study participants according to What are aseptic precautions taken in ER before the procedure was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.023*). The pre-audit compliance was 59.6% and the post-audit was 80.7%, respectively.

IPSG5 A: The compliance rate of study participants according to What are the 5 moments of hand hygiene was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 57.8% and the post-audit was 87.7%, respectively.

IPSG5 B: The compliance rate of study participants according to Demonstrate the steps of hand wash with soap and water (11 steps) was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 56.1% and the post-audit was 80.7%, respectively.

IPSG5 C: The compliance rate of study participants according to Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps) was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 56.1% and the post-audit was 68.4%, respectively.

IPSG5 D: The compliance rate of study participants according to Check the awareness of HAI prevention bundle: VAP, CLABSI, AUTI was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.049*). The pre-audit compliance was 54.3% and the post-audit was 73.6%, respectively.

IPSG5 E: The compliance rate of study participants according to Check for the awareness of indication/Justification Forms was compared across the pre-audit and the post-audit using the chi-square test. It was found to be significant (p=0.001*). The pre-audit compliance was 57.8% and the post-audit was 73.6%, respectively.

IPSG5 F: The compliance rate of study participants according to How do you use the antibiogram while prescribing antibiotics was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 56.1% and the post-audit was 68.4%, respectively.

IPSG6 A: The compliance rate of study participants according to How to ensure patients fall prevention (Any two) was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 57.8% and the post-audit was 70.1%, respectively.

IPSG6 B: The compliance rate of study participants according to Which medication can contribute to patients' falls was compared across the pre-audit and the post-audit using the chi-square test. It was not found to be significant. The pre-audit compliance was 63.1% and the post-audit was 70.1%, respectively.

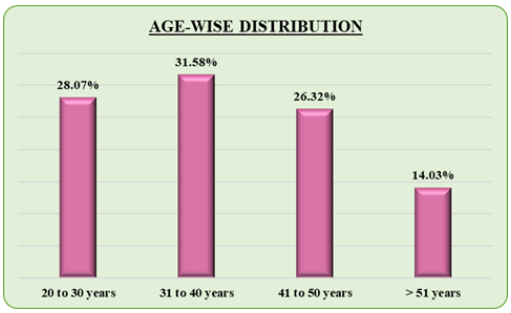

Figure 1: Age-wise distribution

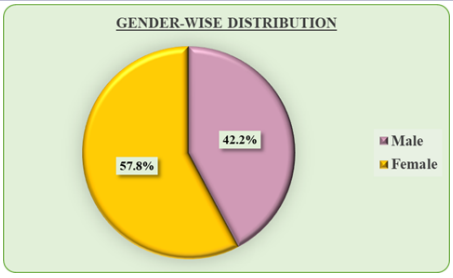

Figure 2: Gender-wise distribution

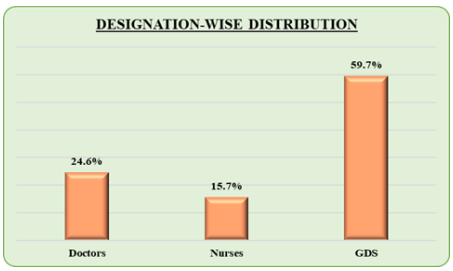

Figure 3: Designation-wise distribution

Table 1: Distribution of Study Participants According to Pre-Audit Compliance

IPSG 1 to IPSG 6		QUESTIONS	DOCTORS (n=14)		NURSES (n=34)		GDA (n=9)		p value
			n	%	n	%	n	%	
IPSG 1	A.	How any identifiers do you use to identify and what are they?	08	57.1%	05	55.5%	19	55.8%	0.960
IPSG 1	B.	When all will you identify patients?	09	64.2%	04	44.4%	18	52.9%	0.958
IPSG 1	C.	When is red ID band placed on the patient	10	71.4%	05	55.5%	22	64.7%	0.877
IPSG 2	A.	In which situation are verbal orders allowed and what is "Read back policy" in verbal orders? Explain the steps?	11	78.5%	05	55.5%	21	61.7%	0.854
IPSG 2	B.	Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom?	10	71.4%	06	66.6%	24	70.5%	0.877
IPSG 2	C.	What will you do if you receive / diagnose the information on Critical Test result?	9	64.2%	06	66.6%	24	70.5%	0.853
IPSG 2	D.	When and how are you supposed to give/ receive handover?	10	71.4%	03	33.3%	23	67.6%	0.864
IPSG 3	A.	What is high alert medication with Two examples and what is the criteria for their storage?	10	71.4%	05	55.5%	20	58.8%	0.855
IPSG 3	B.	What are lookalike drugs and sound alike drugs with 2 examples and what is the criteria for their storage?	11	78.5%	05	55.5%	21	61.7%	0.954
IPSG 3	C.	What are narcotics with two examples and why are they put in a separate category?	11	78.5%	04	44.4%	22	64.7%	0.933
IPSG 3	D.	How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in CRPS)?	10	71.4%	05	55.5%	21	61.7%	0.977
IPSG 3	E.	How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics?	10	71.4%	06	66.6%	18	52.9%	0.891
IPSG 3	F.	Can you give examples on Conc electrolytes?	09	64.2%	06	66.6%	21	61.7%	0.765
IPSG 3	G.	Are you familiar with the approved and do not use abbreviation list?	09	64.2%	05	55.5%	19	55.8%	0.799
IPSG 3	H.	What are the minimum requirements of a good prescription?	09	64.2%	05	55.5%	22	64.7%	0.786
IPSG 4	A.	Is site marking done before doing any procedure?	10	71.4%	04	44.4%	23	67.6%	0.753
IPSG 4	B.	What are aseptic precautions taken in ER before the procedure?	09	64.2%	05	55.5%	20	58.8%	0.768
IPSG 5	A.	What are the 5 moments of hand hygiene?	08	57.1%	04	44.4%	21	61.7%	0.781
IPSG 5	B.	Demonstrate the steps of hand wash with soap and water (11 steps)	10	71.4%	03	33.3%	19	55.8%	0.874
IPSG 5	C.	Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps)	11	78.5%	04	44.4%	17	50%	0.798
IPSG 5	D.	Check the awareness of HAI prevention bundle: -VAP -CLABSI -CAUTI	09	64.2%	04	44.4%	18	52.9%	0.767
IPSG 5	E.	Check for the awareness of indication/Justification Forms.	12	85.7%	04	44.4%	17	50%	0.776
IPSG 5	F.	How do you use the antibiogram while prescribing antibiotics?	10	71.4%	04	44.4%	18	52.9%	0.787
IPSG 6	A.	How to ensure patients fall prevention (Any two)?	09	64.2%	05	55.5%	19	55.8%	0.745
IPSG 6	B.	Which is the medication that can contribute to patients fall?	11	78.5%	05	55.5%	20	58.8%	0.765

Table 2: Distribution of Study Participants According to Post-Audit Compliance

IPSG 1 to IPSG 6	QUESTIONS	DOCTORS (n=14)	GDA (n=9)	NURSES (n=34)	p value

			n	%	n	%	n	%	
IPSG 1	A.	How any identifiers do you use to identify and what are they?	11	78.57	05	55.56	25	73.53	0.718
IPSG 1	B.	When all will you identify patients?	12	85.71	06	66.67	24	70.59	0.778
IPSG 1	C.	When is red ID band placed on the patient	13	92.86	05	55.56	25	73.53	0.190
IPSG 2	A.	In which situation are verbal orders allowed and what is "Read back policy" in verbal orders? Explain the steps?	12	85.71	05	55.56	24	70.59	0.233
IPSG 2	B.	Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom?	13	92.86	06	66.67	26	76.47	0.345
IPSG 2	C.	What will you do if you receive / diagnose the information on Critical Test result?	13	92.86	06	66.67	27	79.41	0.204
IPSG 2	D.	When and how are you supposed to give/ receive handover?	13	92.86	07	77.78	28	82.35	0.233
IPSG 3	A.	What is high alert medication with Two examples and what is the criteria for their storage?	12	85.71	06	66.67	27	79.41	0.171
IPSG 3	B.	What are lookalike drugs and sound alike drugs with 2 examples and what is the criteria for their storage?	12	85.71	06	66.67	26	76.47	0.426
IPSG 3	C.	What are narcotics with two examples and why are they put in a separate category?	12	85.71	06	66.67	28	82.35	0.878
IPSG 3	D.	How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in CRPS)?	11	78.57	05	55.56	25	73.53	0.889
IPSG 3	E.	How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics?	11	78.57	06	66.67	26	76.47	0.877
IPSG 3	F.	Can you give examples on Conc electrolytes?	11	78.57	07	77.78	27	79.41	0.549
IPSG 3	G.	Are you familiar with the approved and do not use abbreviation list?	11	78.57	06	66.67	28	82.35	0.627
IPSG 3	H.	What are the minimum requirements of a good prescription?	13	92.86	07	77.78	26	76.47	0.116
IPSG 4	A.	Is site marking done before doing any procedure?	12	85.71	07	77.78	27	79.41	0.326
IPSG 4	B.	What are aseptic precautions taken in ER before the procedure?	12	85.71	07	77.78	27	79.41	0.147
IPSG 5	A.	What are the 5 moments of hand hygiene?	14	100	08	88.89	28	82.35	0.813
IPSG 5	B.	Demonstrate the steps of hand wash with soap and water (11 steps)	12	85.71	07	77.78	27	79.41	0.844
IPSG 5	C.	Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps)	11	78.57	04	44.44	24	70.59	0.707
IPSG 5	D.	Check the awareness of HAI prevention bundle: -VAP -CLABSI -CAUTI	11	78.57	06	66.67	25	73.53	0.667
IPSG 5	E.	Check for the awareness of indication/Justification Forms.	12	85.71	07	77.78	23	67.65	0.080
IPSG 5	F.	How do you use the antibiogram while prescribing antibiotics?	11	78.57	06	66.67	22	64.71	0.185
IPSG 6	A.	How to ensure patients fall prevention (Any two)?	11	78.57	05	55.56	24	70.59	0.341
IPSG 6	B.	Which is the medication that can contribute to patients fall?	11	78.57	05	55.56	24	70.59	0.341

Table 3: Distribution of Study Participants According to Overall Improvement in Compliance

IPSG 1 to IPSG 6		QUESTIONS	PRE-AUDIT (n=57)		POST-AUDIT (n=57)		p value
			n	%	n	%	
IPSG 1	A.	How any identifiers do you use to identify and what are they?	32	56.1%	41	71.9%	0.038*
IPSG 1	B.	When all will you identify patients?	31	54.3%	42	73.6%	0.025*
IPSG 1	C.	When is red ID band placed on the patient	37	64.9%	43	75.4%	0.166
IPSG 2	A.	In which situation are verbal orders allowed and what is "Read back policy" in verbal orders? Explain the steps?	37	64.9%	41	71.9%	0.108
IPSG 2	B.	Who all are authorized to receive verbal orders and in what time period are verbal/ telephonic orders to be signed and by whom?	40	70.1%	45	78.9%	0.223
IPSG 2	C.	What will you do if you receive / diagnose the information on Critical Test result?	39	68.4%	46	80.7%	0.001*
IPSG 2	D.	When and how are you supposed to give/ receive handover?	36	63.1%	48	84.2%	0.001*
IPSG 3	A.	What is high alert medication with Two examples and what is the criteria for their storage?	35	61.4%	45	78.9%	0.001*
IPSG 3	B.	What are lookalike drugs and sound alike drugs with 2 examples and what is the criteria for their storage?	37	64.9%	44	77.1%	0.001*
IPSG 3	C.	What are narcotics with two examples and why are they put in a separate category?	37	64.9%	46	80.7%	0.001*
IPSG 3	D.	How are narcotics prescribed (in hard copy Narcotic prescription form and documentation of the same in doctors progress notes in	36	63.1%	41	71.9%	0.326

		CRPS)?					
IPSG 3	E.	How are left over/ residual narcotics disposed and how do you discard the broken/empty ampoules of the narcotics?	34	59.6 %	43	75. 4%	0.0 01*
IPSG 3	F.	Can you give examples on Conc electrolytes?	36	63.1 %	45	78. 9%	0.0 01*
IPSG 3	G.	Are you familiar with the approved and do not use abbreviation list?	33	57.8 %	45	78. 9%	0.0 01*
IPSG 3	H.	What are the minimum requirements of a good prescription?	36	63.1 %	46	80. 7%	0.0 01*
IPSG 4	A.	Is site marking done before doing any procedure?	37	64.9 %	46	80. 7%	0.0 4*
IPSG 4	B.	What are aseptic precautions taken in ER before the procedure?	34	59.6 %	46	80. 7%	0.0 23*
IPSG 5	A.	What are the 5 moments of hand hygiene?	33	57.8 %	50	87. 7%	0.0 01*
IPSG 5	B.	Demonstrate the steps of hand wash with soap and water (11 steps)	32	56.1 %	46	80. 7%	0.0 01*
IPSG 5	C.	Demonstrate the steps of hand hygiene with alcohol-based formulation (8 steps)	32	56.1 %	39	68. 4%	0.4 42
IPSG 5	D.	Check the awareness of HAI prevention bundle: -VAP -CLABSI -CAUTI	31	54.3 %	42	73. 6%	0.0 49*
IPSG 5	E.	Check for the awareness of indication/Justification Forms.	33	57.8 %	42	73. 6%	0.0 01*
IPSG 5	F.	How do you use the antibiogram while prescribing antibiotics?	32	56.1 %	39	68. 4%	0.5 0
IPSG 6	A.	How to ensure patients fall prevention (Any two)?	33	57.8 %	40	70. 1%	0.5 1
IPSG 6	B.	Which is the medication that can contribute to patients fall?	36	63.1 %	40	70. 1%	0.0 69

DISCUSSION

Healthcare revolves around patient safety. This can be achieved by balancing healthcare system organisation and governance. All healthcare staff must ensure patient safety. Open communication, shared perception, and trust in patient safety can foster a positive organisation culture.[8] Accountability for credentialed and competent timely assessment of patient safety modules falls to individuals, teams, and systems. By identifying prevalent error factors, fundamental rules and design flaws in the system can be examined and amended to create feasible remedies.[9] Patient safety is multifaceted. Comprehensive examination and knowledge of human factors and systems engineering are needed for this worldwide challenge. Adverse events can result from failure to develop clinical audit systems and execute timely audits, inappropriate governance, poor communication processes, poor working relationships between management and clinician, team work, lack of structured incident reporting systems, inconsistent adverse event reporting, and failure to participate in continuing education programmes.[10] Planning and organising, good attitudes and ideals towards safety and quality, and evidence-based data use are Governance aspects. Leadership and accountability are essential for safe system delivery, and healthcare system organisation and governance must be balanced. Everyone is accountable for patient safety in healthcare, and without strong leadership, practitioners may lose drive and become complacent. Leaders must foster open communication, shared perspective, and trust in safety to establish a positive culture.[11]

Doctors had the highest post-audit compliance (84.85%), followed by nurses (75.64%) and GDA (67.111%). There was no significant variation in compliance rate improvement across individuals. Like Ananya et al. in 2019,[12] doctors had a 72% compliance rate, nurses 69%, and paramedics 68%. These data show that IPSG values were unknown to them. In 2016, Shaheen et al,[13] found that 70.9% of participants had unaccepted patient/client safety practices. Only 77% of participants were familiar with IPSGs, according to Omer et al,[14] in 2017. 75% (70% of R1, 68% of R2, 96% of R3, 65% of R4) chose the proper IPSG numbers with 25% not. In 2015, Webair et al,[15] assessed patient/client safety culture in a primary care environment in Yemen and found that 83% of respondents had high awareness of patient/client safety but practiced inappropriately. In contrast to this study, Brasaite et al,[16] found low safety knowledge among health workers in 2017.

In this study for IPSG 1, study members' compliance rates were significant: 56.14% pre-audit and 71.93% post-audit for IPSG A, and 54.39% and 3.68% for IPSG 1B. In 2019, Ananya et al,[12] found that doctors and nurses comply with patient identification parameters using at least two identifiers. Following these findings, Comunale et al,[17] in the year 2018 reported 52% of first-year clinical residents' patient identification skills. The 2016 Aziz et al,[18] study According to IPSG 1 statistics, the 2014 Mean was 99% with a 1% gap due to workers not knowing standard processes. Due to new staff and incomplete practice of the two IDs, the Mean was 97.6% in 2015, down 1.4% from 2014.

Staff must correctly identify patients to avoid misdiagnosis, incorrect testing, and improper treatment, which can lead to catastrophic problems. Fortunately, interventions and methods can considerably reduce patient misidentification. Most patient misidentifications involve medicine administration, phlebotomy, blood transfusions, and surgery. Limiting clinical team members' working hours increases the number of team members per patient, raising the risk of hand-over and other communication issues. Many errors result from patient misidentification. In certain nations, wristbands are used to identify hospitalized patients, however, lost bands or erroneous information reduce their effectiveness. Wristband color coding helps staff at many locations identify concerns quickly, but the lack of a standardized system has caused errors. Screen server, notice board, bookmark, and pocketbook should emphasize proper identification.[19,20]

The compliance rate of study participants was considerable for IPSG 2C and IPSG 2D, with pre-audit compliance of 68.42% and post-audit compliance of 80.70% and 63.16% and 84.21%, respectively. Similarly, Ananya et al,[12] in the year 2019, reported good doctor compliance. Only 17 of 25 nurses knew about and documented the hands-off form (patient transfer checklist). Aziz et al,[18] in the year 2016, For IPSG 2, the 2014 Mean was 99.6% while the 2015 Mean was 99.1%, down 0.5% from 2014. Lower compliance in 2015 was related to staff inexperience and reluctance to suggest consultants. The IPSG 3A study demonstrated significant participant compliance. IPSG 3A pre-audit compliance was 61.40% and post-audit 78.95%. For IPSG 3B, pre-audit compliance was 64.91% and post-audit 77.19%. IPSG 3C had 64.91% compliance and 80.70% post-audit, IPSG 3E had 59.65% and 75.44%, IPSG 3F had 63.16% and 78.95%, IPSG 3G had 57.89% and 80.70%, and IPSG 3H had 63.16% and 80.70%. This goal involves storing high-alert medicine legally. Ananya et al,[12] in 2019, found that nurses had minimum compliance with double verification before administering high-alert medications and maximum compliance with expiration policies. Aziz et al,[18] found that IPSG 3, which covers High Alert Medication

establishment and identification, storage and preparation, administration, and Look Alike and Sound Alike management, met the quality objective of 100% compliance in 2014 and 2015. Medication mistakes are a leading cause of needless patient damage in health care.[21]

The compliance rate of IPSG 4A research participants was significant. Before the audit, IPSG 4A compliance was 64.91% and after, 80.70%. IPSG 4B compliance was 59.65% and after, 80.70%. The study by Aziz et al[18] in 2016, showed 100% IPSG 4 compliance for both years. According to IPSG 5, the Mean for 2014 was 75.3% while for 2015 it was 75.2%, 0.1% lower. In this study for 5A, participant compliance was significant. Pre-audit compliance: 57.89% and post-audit: 87.72% for IPSG 5A, 56.14% and 80.70% for IPSG 5B, 56.14% and 68.42% for IPSG 5C, 54.39% and 73.68% for IPSG 5d, and 57.89% and 73.68% for IPSG 5E. In 2019, Ananya et al,[12] Parameter 5.1 had above 60% compliance, while parameter 5.2 had 45% to 66% compliance, with doctors and nurses having the highest compliance. Parameter 5.3 applies to no category because it addresses Clostridium difficile infection handling, and no patients were admitted during the trial.

The study by Aziz et al,[18] showed that the majority of nonclinical workers did not follow the 5-minute hand hygiene protocol. The Mean IPSG 6 compliance rate from January to December 2014 was 83.3% due to staff failure to reassess patient condition changes. In 2015, the Mean was 97.3%, up 14% for inpatient and outpatient fall risk assessment.

Hand hygiene is simple but efficient at blocking illnesses. To avoid the transmission of germs, even antibiotic-resistant ones that are growing harder to cure, wash your hands. A lifetime learning system with periodic credential, privileged, and competence assessment is needed. Health care professionals need periodic patient safety training. Future studies should identify prevalent mistake causes and offer solutions. A carefully planned research strategy targeting a specific module is needed to increase patient safety, even if understanding and classifying relevant elements can be difficult due to the large range of inputs that lead to errors. It will also reveal ignored fundamental rules and design flaws in the existing system, which can be fixed. It will be slow but help improve patient safety services over time.[22,23]

CONCLUSIONS

The current research findings indicate that informing professionals about patient safety goals at the organizational level leads to notable improvements. A comprehensive framework can be created to enhance and reinforce the existing safety culture. Conducting regular evaluations of noncompliance reasons as part of continuous assessment can lead to an improvement in the compliance rate. This, in turn, has long-term benefits for delivering safe health services to patients, enhancing their quality of life, and reducing medical errors.

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