

A Study on Analysing Adherence to International Patient Safety Goals [1, 2, 6] in a Metropolitan Quaternary Care Centre

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Abstract:- Every year, low- and middle-income countries experience around 134 million adverse events within their healthcare systems, resulting in 2.6 million fatalities. This places a substantial strain on the economies of these countries and their healthcare spending. The International Patient Safety Goals (IPSG) are modern initiatives set forth by the Joint Commission International (JCI) to enhance patient safety in healthcare organizations. These standards assist in avoiding or mitigating risks and eliminating mistakes to ensure that patient care remains safe and consistent. A cross-sectional study was carried out in a quaternary care facility located in a metropolitan area from May to June of the year 2024. A checklist was employed to assess compliance with IPSG-1, 2, and 6 across various subcategories, and data was gathered from 529 patients through a convenience sampling method. This research assesses adherence to International Patient Safety Goals (IPSG) among various hospital departments. Notable compliance rates were recorded in specific areas, such as ID Band Compliance for Pediatrics Medicine and Surgery at 88% and 92.11%, respectively, and IPSG IPD Fall Risk Assessment for ENT at 90.91%. Additionally, several categories achieved perfect compliance rates, such as medication administration and transfer of patients from clinical areas to diagnostics. Conversely, considerable deficiencies were found in sample collection (Head & Neck Oncology: 42.86%), Formulae feed (Neurosurgery: 0%), and handover of the patient from Emergency to Clinical Area (Gynae Oncology: 0%). Although ENT showed reliable performance, there remains a need for improvement in certain areas. The results underscore specific opportunities for interventions aimed at boosting compliance and safeguarding patient safety. The facility emphasized the importance of ongoing monitoring, staff training, and tailored strategies for regions that exhibited low compliance despite achieving good adherence to IPSG 1, 2, and 6.

Keywords: *Quality, Patient Safety, Compliance, Hospital, IPSG*

Introduction

Every year, low-to-middle-income countries face approximately 134 million adverse events in a healthcare setting and 2.6 million deaths. [1] This significantly burdens countries' economies and expenditures on healthcare services. In 2019, the 72nd World Health Assembly adopted a resolution on patient safety and formulated a global safety action plan. The primary goal of this assembly and from here on forward was to develop an action plan to eliminate injuries in healthcare settings and improve patient safety. (Seventy-Sixth World Health Assembly – Daily Update: 27 May 2023)

Healthcare in low-to-middle-income countries is growing rapidly with advanced diagnostic and treatment techniques and equipment. [3] However, this advancement came with the caveat of the complexity of the hospital, its operations, patient management, and other essential parts of healthcare delivery. Patient safety is an essential healthcare delivery component in patient care. Globally, patient safety has been given priority, as it is essential for the patient's recovery during the stay at the hospital. [4]. This led to the development of the International Patient Safety Goals (IPSG) in 2006, adapted from the JCAHO's National Patient Safety Goals.

International Patient Safety Goals (IPSG) constitute contemporary measures established by the Joint Commission International (JCI) to improve patient safety in organizations. These standards help to prevent or reduce risk and

eliminate errors so that patient care is consistent and safe. The IPSPG includes six essential goals that tackle key issues of patient safety. The first goal focuses on identifying the patient correctly. It always mandates the verification of the correct patient by healthcare providers, and that too, with the help of at least two identifiers. The second objective focuses on enhancing communication in the handover of patient information and in giving verbal and telephonic orders to prevent misunderstanding. The third goal promotes the development of standardized practices for labelling, storing, and administering high-alert medications so that they are safe. The fourth goal is to ensure the correct site, correct procedure and correct patient during the surgery. The surgical safety checklist is one of the protocols to avoid errors during invasive procedures. The fifth goal is the prevention of hospital-associated infections (HAIs) by strictly enforcing adherence to hand hygiene and sterilization, and the sixth goal is to reduce the risk of patient harm resulting from falls. [5]

This study was conducted to check the adherence of IPSPG one, two, and six in a Quaternary care facility. The Internees regularly did this at the facility as they provided fair assessment feedback to Hospital Management.

Methodology

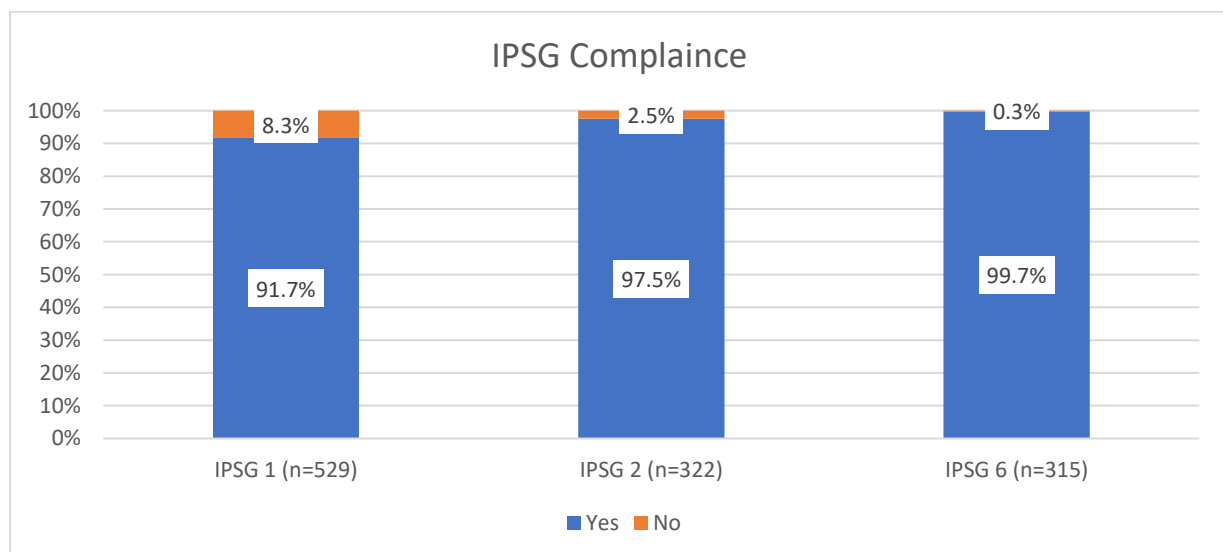
This cross-sectional study was conducted in a Quaternary care facility in a metropolitan city from May to June 2024. The study was conducted over two months, during which data was collected daily. Each file was checked individually to ensure the following criteria were met: Only new patients admitted to the hospital were included in the study, and all hospital departments were visited systematically to review patient files. Patient files with all mandatory details and documentation relevant to IPSPG Goals 1, 2, and 6 were included. Each patient file was reviewed once, and measures were taken to avoid duplicate data collection.

A checklist was used to capture the compliance of IPSPG-1,2, and 6. Patient identity was not captured in the checklist. A total of 529 patient data was captured through convenient sampling during the study in the hospital. The checklist used a score of 1 for compliance and 0 for non-compliance in each of the subcategories of the goal.

Data was collected and coded in STATA v15, and descriptive analysis was conducted. It was also used to check if compliance was different in different departments within the hospital.

Results

A total of 529 patient data was collected from various departments within the hospital.



Graph 1: IPSPG 1,2 & 6 compliance percentage among the sample data

The bar graph highlights compliance with IPSPG-1 (International Patient Safety Goal 1), emphasizing correct patient identification. Most cases (91.68%) comply with this requirement, demonstrating a strong commitment to

patient safety. However, 8.32% of cases fail to meet this standard, indicating the need to improve patient identification practices. While the high compliance rate reflects the effective implementation of safety protocols, addressing the non-compliance cases is essential to achieving 100% accuracy. Enhanced measures such as staff training, robust verification systems, and continuous monitoring can help eliminate errors, ensuring improved patient safety and better healthcare outcomes.

The bar graph illustrates compliance with IPSP-2 (International Patient Safety Goal 2), which aims to improve effective communication. The data reveals an impressive compliance rate of 97.52%, indicating that most cases adhere to effective communication standards in patient care. However, a small percentage (2.48%) falls short of compliance, suggesting the need for further improvement in communication practices. The high compliance rate reflects a well-established framework for ensuring clear and effective communication among healthcare providers. Addressing the remaining non-compliance cases through targeted interventions, such as staff training and robust communication protocols, can help achieve complete adherence to this crucial patient safety goal.

Table 1: Department-wise IPSP 1,2,6 compliance

IPSP	IPSP Subcategory	Department	Compliance		Total
			Yes	No	
1	1.1(Id Band Compliance)	ENT	10 (90.91%)	1 (9.1%)	11
		Paediatric Medicine	44 (88%)	6 (12%)	50
		Paediatric Surgery	35 (92.11%)	3 (7.9%)	38
	1.2(Blood Transfusion)	Surgical Gastro	4 (80%)	1 (20%)	5
	1.3(Sample Collection)	Head & Neck Oncology	3 (42.86%)	4 (57.15%)	7
	1.5(Medication Infusion)	ENT	9 (90%)	1 (10%)	10
	1.6(Diet)	Cranio Maillofacial	5 (71.43%)	2 (28.58%)	7
		ENT	9 (81.82%)	2 (18.19%)	11
		Head & Neck Oncology	6 (54.55%)	5 (45.46%)	11
		Neurosurgery	13 (92.86%)	1 (7.15%)	14
		Obstetrics & Gynaecology	37 (90.25%)	4 (9.76%)	41
		Paediatric Medicine	46 (92%)	4 (8%)	50
	1.8(Formula Feed)	Paediatric Surgery	35 (92.11%)	3 (7.9%)	38
Neurosurgery		0 (0%)	8 (100%)	8	
	Neurology	0 (0%)	3 (100%)	3	
2	2.1(Shift Hand Over)	ENT	7 (63.64%)	4 (36.37%)	11
		Head & Neck Oncology	10 (90.91%)	1 (9.1%)	11
	2.2(Transfer Of Patient From Emergency To Clinical Area)	Gynae Oncology	0 (0%)	1 (100%)	1
	2.4(Transfer Of Patient From Ward /ICU To OT)	ENT	7 (77.78%)	2 (22.23%)	9
		Head & Neck Oncology	9 (90%)	1 (10%)	10
6	6.2(IPD Fall Assessment)	ENT	10 (90.91%)	1 (9.1%)	11

NOTE: IPSP subcategories were not included as they did not apply to the patient context in that department.

The table displays compliance results for several IPSG subcategories from different departments. In IPSG 1.1(Indicating ID Band Compliance), it was observed that ENT has achieved compliance of 90.91%, whereas Pediatrics Medicine and Surgery has 88% and 92.11% compliance. Some subcategories, like H&N in 1.3(Indicating Sample Collection), have lower compliance by 42.86%. Neurosurgery for 1.8 has no compliance of 0%. According to IPSG 2.1(Indicating Shift Handover), ENT showed the lowest compliance at 63.64%, while H&N exhibited the highest compliance at 90.91%. GYN ONCO recorded zero compliance in 2.2(Indicating Transfer of Patient from Emergency to Clinical Area), a gap. ENT was doing quite well in each subcategory, and the compliance percentage has been above 90% on several occasions. However, there was room for improvement in areas like H&N (45.46) and Neurology (0). In IPSG 6.2(Indicating IPD Fall Risk Assessment), it was observed that ENT has achieved compliance of 90.91%. The data indicates targeted areas that could improve performance through interventions.

IPSG subcategories not indicated in the above table, i.e., 1.4(Indicating Medication Administration), 1.9(Cross Referral), 1.10(Indicating OPD Consultation), 1.11(Indicating OPD Diagnostics), 2.3(Indicating Transfer of Patient from Clinical Area to Diagnostics), 6.1 (Indicating OPD Fall Risk Assessment) as it was found to be 100% compliant.

Discussion

The study demonstrates that various departments in a quaternary care setting have followed the International Patient Safety Goals (IPSG) 1, 2, 6 of WHO. Even though the compliance rates look positive, these findings indicate the places that want to improve to ensure safety.

The outcome of IPSG 1, identifying the right patient, showed a high compliance rate of 91.68% in the sample. This study is quite similar to other studies of the past. [6] In fact, identifying the right patient is a lifesaving goal. Further, it prevents errors related to treatment. Although an 8.32% non-compliance rate is not a big concern, it potentially harms the patients. Specialities like Pediatrics Surgery (92.11%) and ENT (90.91%) have shown high compliance, while H&N under 1.3 has shown poor compliance (42.86%). Research indicates that detailed training, mechanization, and set protocols can help improve patient identification. [7]

This is the most effective communication facility and has received 97.52% IPSG compliance. Still, nearly 2.5% of non-compliance shows that miscommunication must be a relevant issue as it continues to occur. According to global patient safety initiatives, clear communications during handoffs and precise verbal and phone orders can help close the gaps. [8], [9], [10]

Many departments showed good compliance in IPSG 6, which is 'reduce the risk of patient harm resulting from falls'. The % compliance in ENT was 90.91%. However, there were observed gaps in compliance for certain subcategories, specifically neurosurgery, which was under 1.8 with 0% compliance. Implementing strong hand hygiene and sterilization protocols to bridge such gaps is essential.

The discrepancy in compliance rates between departments suggests systemic issues. For instance, Gynecologic Oncology (0% compliance in 2.2) and Neurology (0% compliance in 1.8) show that departments need specific interventions to meet their needs. Studies show that audits, feedback, and policy enforcement can improve the compliance of departments. [11]

Some of the departments in the hospital had low compliance with patient safety standards, contributing to reduced compliance. The reasons for low compliance were similar to those found in other studies, i.e., poor communication, lack of training, shortage of time, fatigue, policy planning, shortage of staff, etc. [12]

Limitation

The study's cross-sectional design helped look at the compliance of various departments, but it has its drawbacks. Using data daily may have caused observer bias while excluding patients admitted before may have left history

to lose sight of sustained compliance. Future research should adopt longitudinal designs to evaluate adherence trends and interventions' impacts.

Conclusion

The need for continuous monitoring, staff training and specially designed strategies for areas that had shown low compliance was also highlighted by the gaps identified by the facility, despite good compliance with IPSPG 1, 2, and 6. These challenges should be addressed to bring healthcare facilities closer to achieving the zero-harm goal.

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