

**DISSERTATION**

**ON**

**INTERNATIONAL PATIENT SAFETY GOALS**

**SUBMITTED BY**

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**UNDER THE GUIDANCE OF**

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# ABSTRACT

**Introduction:** The international patient safety goals (IPSG) are important guidelines at the international level to promote specific improvements in the process of providing safe and high-quality patient care.

**Objective :** To assess the compliance to JCI standards for IPSG (International Patient Safety Goals) in BL KAPOOR SUPERSPECIALITY HOSPITAL ,NEW DELHI.

**Background :** There is a global trend towards the pursuit of healthcare quality, driven forward as countries attempt to engage in the more effective management of resources and services amidst concerns of increasing costs, competing priorities and patient safety. The level of compliance against standards is then evaluated by the external teams of surveyor and on that basis accreditation rating is arrived at for the organization Joint Commission International (JCI) is an international body issuing healthcare standards following the principles of Total Quality Management to improve quality and patient safety.

**Methodology :** For the purpose of the study and data collection, inpatient ward, intensive care unit, emergency department, ICU, radiology department were visited and observed over the span of three months. The observations were noted in checklists as per IPSG.

**Findings :** The overall compliance rate for IPSG was 87% & out of all the six goals of IPSG best result was seen for the compliance of 2nd goal of IPSG i.e Improve Effective Communication which was 98%. The lowest performance was seen for the 5th goal i.e Reducing the Risk of Health Care–Associated Infections which was about 75%.

**Conclusion:** It could be inferred from the study that there is overall compliance of IPSG standards of JCI with few variations in some of the elements that could be achieved by training and motivation of the staffs for a more systematic pursue of the policies and procedures laid down for IPSG.

## **LIST OF ABBREVIATIONS**

HAI-Health care associated infection

HSOPSC-Hospital Survey on Patient Safety Culture

ICU –Intensive care unit

IPD –In patient Ward

IPSG-International patient safety goal

LASA –Look alike and sound alike

WHO- World health organisation

## ORGANIZATION OVERVIEW

Dr. B.L Kapur , an eminent obstetrician & gynecologist , set up a charitable hospital in 1930 at Lahore. This soon to be recognized as a maternity hospital delivering human care especially to the poor classes. Post partition Dr. B.L Kapur moved to set up a similar institution in Ludhiana. His selfless dedication to his profession and his patients earned him praise from Pt. Jawahar Lal Nehru who invited him to start a hospital in Delhi. Dr. B.L Kapur set up 200 bedded hospital in Delhi. The hospital was inaugurated by Pt. Jawahar Lal Nehru himself on 2<sup>nd</sup> Jan, 1959. The new project was started in April 2004 and the completed hospital was inaugurated on 21<sup>st</sup> May 2009. The hospital got NABH accreditation for the hospital and NABL accreditation for the laboratory services in September 2010. Now hospital is 650 bedded super specialty Hospital has 7 floor With furnished rooms and offices, Has 7 nos. of lift and 1 Has 7 nos. of lift and 1 service lift with proper safety measures.

### NO OF DEPARTMENTS

#### BASEMENT

1. RADIATION ONCOLOGY.
2. MANIFOLD GAS ROOM
3. MEDICAL RECORD MANAGEMENT
4. BILLING SECTION
5. BIO-MEDICAL WASTE
6. STORE

7.LAUNDRY

8. A.C PLANT & L.T PANEL

9.CSSD

10.HOUSE KEEPING DEPARTMENT

GROUND FLOOR

1.RECEPTION

2.CALL CENTRE

3.RADIOLOGY

4.BLOOD BANK

5.OPDS

6. EMERGENCY DEPARTMENT

7.PHARMACY

8.NUCLEAR MEDICINE

9.ADMISSION & BILLING

10.CAFETERIA

FRIST FLOOR

- OPDS [GENERAL]
- CAFETERIA
- INTERNATIONAL PATIENT LOUNGE
- BLK CENTRE FOR COSMETIC AND PLASTIC SURGERY
- NEURO SCIENCE DEPARTMENT

## SECOND FLOOR

- MICU
- ICCU
- ICU
- OPERATION THEATER
- PICCU
- CTVICU
- POST OPERATION
- PRE OPERATION PRE ANESTHESIA

## THIRD FLOOR

- IPDS
- GENERAL ROOMS [SHARRING BASSIS ;2;3;4;6]
- SINGAL ROOMS
- DELUX ROOMS
- SWEATS

## FOURTH FLOOR

- IPDS ROOMS
- NICU
- PICU
- DAY CARE
- MBU



- DOCTORS DUTY ROOM

Fifth floor

- IPDS ROOMS
- ADMINISTRATION DEPARTMENT
- SWEATS ROOMS

## SIXTH FLOOR

- BONE MARROW TRANSPLANTATION DEPARTMENT
- IPDS ROOMS
- CLINICAL TRAILS
- LIBRARY

Seventh floor

- IVF DEPARTMENT
- ASTHETIC COSEMETIC SURGERY
- HUMAN RESOURCE
- IT DEPARTMENT
- QUALITY DEPARTMENT
- ACCOUNTS
- SEMINAR ROOMS
- CONVERENCE ROOM
- PURCHASE
- MARKTING DEPARTMENT

# INTRODUCTION

Patient safety is a serious global public health issue and in developed countries 10 percent of patients is harmed while receiving hospital care. However in developing countries the probability of patients being harmed in hospitals is higher than in industrialized nations. In some developing countries the risk of health care-associated infection is as much as 20 times higher than in developed countries. In recent years, countries have increasingly recognized the importance of improving patient safety.

In 2002, WHO Member States agreed on a World Health Assembly resolution on 10 patient safety issues consisting of improving patient safety, harm caused by a range of errors, risk of health care associated infection, hand hygiene to reduce health care associated infection, safety of medical equipment, infection due to reused needles, surgical safety, the economic benefit of improving patient safety, perceived higher risk industries had better safety record compared to health care and patient experience and their health.

The failure to identify patients correctly continues to result in medication errors, transfusion errors, testing errors, wrong person procedures, and the discharge of infants to the wrong families. Effective communication which is timely, accurate, complete, unambiguous, and understood by the recipient will reduce errors and results in improved patient safety. Communication can be electronic, verbal, or written. The most error-prone communications are patient care orders given verbally and those given over the telephone, when permitted under local laws or regulations. Another error-prone communication is the reporting back of

critical test results, such as the clinical laboratory telephoning the organization to report the results of a critical lab value. High-alert medications are those medications involved in a high percentage of errors and/or sentinel events, medications that carry a higher risk for adverse outcomes, as well as look-alike, sound-alike medications. In health care organizations, wrong-site, wrong-patient surgery, wrong –procedure, is an alarmingly common occurrence. Ineffective or inadequate communication between members of the surgical team, lack of patient involvement in site marking, and lack of procedures for verifying the operative site result in those errors. Frequent contributing factors are inadequate patient assessment, inadequate medical record review, a culture that does not support open communication among surgical team members, problems related to illegible handwriting, and the use of abbreviations. Healthcare-associated infections (HAIs) can be serious and even deadly for patients. Patients are expecting care and treatment, not additional illness and complications. The Centers for Disease Control and Prevention estimates that 1 in 20 hospitalized patients develop an HAI. In the United States, an estimated 1.7–2 million people per year develop an HAI, and nearly 100,000 die (Klevens, R.M, 2002). A significant number of falls result in death or severe or moderate injury, at an estimated cost of £15 million per annum for immediate healthcare treatment alone (NPSA, 2007). Fall as up to 90% of older patients who fracture their neck of femur fail to recover their previous level of mobility or independence (Murray, Cameron and Cumming, 2007)

The purpose of the IPSPG is to promote specific improvements in patient safety. The goals highlight problematic areas in health care and describe evidence- and expert-based consensus solutions to these problems. Recognizing that sound system design is intrinsic to

the delivery of safe, high-quality health care, the goals generally focus on system-wide solutions, wherever possible.

The goals are structured in the same manner as the other standards, including a standard (goal statement), an intent statement, and measurable elements. The goals are scored similar to other standards as “met,” “partially met,” or “not met.” The accreditation decision rules include compliance with the IPSTG as a separate decision rule.

International patient safety goals consist of six goals as follows:

### **IPSTG.1** Identify Patients Correctly :

#### **Intent of IPSTG.1**

Wrong-patient errors occur in virtually all aspects of diagnosis and treatment.<sup>1</sup> Patients may be sedated, disoriented, not fully alert, or comatose; may change beds, rooms, or locations within the hospital; may have sensory disabilities; may not remember their identity; or may be subject to other situations that may lead to errors in correct identification. The intent of this goal is twofold: first, to reliably identify the individual as the person for whom the service or treatment is intended; second, to match the service or treatment to that individual.

The identification process used throughout the hospital requires at least two ways in which to identify a *patient*, such as the patient’s name, identification number, birth date, a bar-coded wristband, or other ways.

The patient’s room number or location in the hospital cannot be used for identification. The *process* for using two different patient identifiers is uniform throughout the hospital.

However, the two identifiers used in the inpatient department may be different from the two identifiers in the outpatient department. **For example**, the patient's name and identification number or medical record number may be used in all inpatient areas, and the patient name and birth date may be used in all outpatient departments, such as the emergency department, *ambulatory care* department, or other outpatient location. There are special circumstances in which the hospital may need to develop a specific process for patient identification; **for example**, when a comatose or confused/disoriented patient arrives with no identification, in the case of a newborn when the parents have not immediately chosen a name, and other examples. The process takes into account the unique needs of the patients, and staff use the process for patient identification in these special circumstances to prevent error. Two different patient identifiers are required in any circumstance involving patient interventions. **For example**, patients are identified before providing treatments (such as administering medications, blood, or blood products; serving a restricted diet tray; or providing radiation therapy); performing procedures (such as insertion of an intravenous line or hemodialysis); and before any diagnostic procedures (such as taking blood and other specimens for clinical testing, or performing a cardiac catheterization or diagnostic radiology procedure).

## **IPSG.2 Improve Effective Communication:**

### **Intent of IPSG.2**

Effective communication, which is timely, accurate, complete, unambiguous, and understood by the recipient, reduces errors and results in improved patient safety. Communication can be electronic, verbal, or written. Patient care circumstances that can be critically impacted by poor communication include verbal and telephone patient care orders, verbal and telephone communication of critical test results, and handover communications.

Patient care orders given verbally in-person and over the telephone, if permitted under local laws and regulations, are some of the most error-prone communications. Different accents, dialects, and pronunciations can make it difficult for the receiver to understand the order being given. **For example**, drug names and numbers that sound alike, such as erythromycin and azithromycin or fifteen and fifty, can affect the accuracy of the order. Background noise, interruptions, and unfamiliar drug names and terminology often compound the problem. Once received, a verbal order must be transcribed as a written order, which adds complexity and risk to the ordering process. The reporting of critical results of diagnostic tests is also a patient safety issue. Diagnostic tests include, but are not limited to, laboratory tests, radiology exams, nuclear medicine exams, ultrasound procedures, magnetic resonance imaging, and cardiac diagnostics. This includes critical results from any diagnostic tests performed at the bedside, such as point-of-care testing, portable radiographs, bedside ultrasounds, or transesophageal echocardiograms. Results that are significantly outside the normal range may indicate a high-risk or lifethreatening condition. A formal reporting system that clearly identifies how critical results of diagnostic tests are communicated to health care practitioners and how the information is documented reduces patient risks.

*Handover* communications can also be referred to as *handoff* communications. Handovers of patient care within a hospital occur

- between *health care practitioners* (**for example**, physician to physician, physician to nurse, nurse to nurse, and so on);
- between different levels of care in the same hospital (**for example**, when the patient is moved from an intensive care unit to a medical unit or from an emergency department to the operating theatre)
- from inpatient units to diagnostic or other treatment departments, such as radiology or physical therapy; and between staff and patients/families, such as at discharge.

Breakdowns in communication can occur during any handover of patient care and can result in *adverse events*. Interruptions and other distractions from unit activities can inhibit clear communication of important patient information. Standardized, critical content for communication between the patient, family, caregiver, and health care practitioners can significantly improve the outcomes related to handovers of patient care. Standardized forms, tools, or methods support a consistent and complete handover process. The content of the handover communication and the form, tool, or method used is standardized for the type of handover. The handover process may be different for different types of handovers within the hospital. **For example**, handovers of patient care for the emergency department to a medical ward may require a different process or different content than handovers for the operating theatre to the intensive care unit; however, the handovers are standardized for the type of handover occurring. Handover forms or tools, if used by the hospital, are not required to be part of the medical record. In addition, the detailed information

communicated during the handover is not required to be documented in the medical record; however, the hospital may want to have documentation that the handover occurred. **For example**, the health care practitioner would record that he or she completed the handover and to whom he or she endorsed care, and then sign, date, and time the entry.

Safe practices for effective communication include the following:

- Limiting verbal communication of prescription or medication orders to urgent situations in which immediate written or electronic communication is not feasible. **For example**, verbal orders can be disallowed when the prescriber is present and the patient's chart is available. Verbal orders can be restricted to situations in which it is difficult or impossible for hard-copy or electronic order transmission, such as during a sterile procedure.
- The development of guidelines for requesting and receiving test results on an emergency or STAT basis, the identification and definitions of critical tests and critical values, to whom and by whom critical test results are reported, and monitoring compliance.
- Writing down, or entering into a computer, the complete order or test result by the receiver of the information; the receiver reading back the order or test result; and the sender confirming that what has been written down and read back is accurate. Permissible alternatives for when the read-back process may not always be possible may be identified, such as in the operating theatre and in emergent situations in the emergency department or intensive care unit.
- Use of standardized, critical content for communication between the patient, family, health care practitioner, and others involved in the patient's care during handovers of patient care.



- Use of standardized methods, forms, or tools to facilitate consistent and complete handovers of patient care

### **IPSG.3** Improve the Safety of High-Alert Medications:

#### **Intent of IPSG.3**

When medications are part of the patient treatment plan, appropriate management is critical to ensuring patient safety. Any medication, even those that can be purchased without a prescription, if used improperly can cause injury. However, high-alert medications cause harm more frequently, and the harm they produce is likely to be more serious when they are given in error. This can lead to increased patient suffering and potentially additional costs associated with caring for these patients. *High-alert medications* are those medications involved in a high percentage of errors and/or sentinel events, as well as medications that carry a higher risk for abuse or other adverse outcomes.

**Examples** of high-alert medications include investigational medications, controlled medications, medications with a narrow therapeutic range, chemotherapy, anticoagulants, psychotherapeutic medications, and look-alike/sound-alike medications (LASA).

There are many medication names that sound or look like other medication names. Confusing names is a common cause of medication errors throughout the world. Contributing to this confusion are

- incomplete knowledge of drug names;

- newly available products;
- similar packaging or labeling;
- similar clinical use; and
- illegible prescriptions or misunderstanding during issuing of verbal orders.

**Examples** of lists of high-alert medications are available from organizations such as the Institute for Safe Medication Practices (ISMP) and the World Health Organization (WHO). For safe management, the hospital needs to develop its own list(s) of high-alert medications based on its unique utilization patterns of medications and its own internal data about near misses, medication errors, and sentinel events.

The list includes medications identified as high risk for adverse outcomes. Information from the literature and/or Ministry of Health may also be useful in helping to identify which medications should be included. These medications are stored in a way that reduces the likelihood of inadvertent administration or ideally provides directions on the proper use of the medication. Strategies to improve the safety of high-alert medications may be tailored to the specific risk of each medication and should include consideration of prescribing, preparation, administration, and monitoring processes, in addition to safe storage

strategies. Medications at risk for look-alike/sound-alike confusion, such as similar medication names and similar product packaging, may lead to potentially harmful medication errors. Hospitals need to institute risk management strategies to minimize adverse events with LASA medications and enhance patient safety.

A frequently cited medication safety issue is the incorrect or unintentional administration of concentrated electrolytes (**for example**, potassium chloride [equal to or greater than 2 mEq/mL concentration], potassium phosphate [equal to or greater than 3 mmol/mL concentration], sodium chloride [greater than 0.9% concentration], and magnesium sulfate [equal to or greater than 50% concentration]). The most effective means to reduce or to eliminate these occurrences is to develop a process for managing concentrated electrolytes that includes removing the concentrated electrolytes from the patient care units to the pharmacy. The hospital identifies any areas where concentrated electrolytes are clinically necessary in the concentrated form as determined by evidence and professional practice, such as the intensive care unit or cardiac operating theatre, and identifies how they are clearly labeled and how they are stored in those areas in a manner that restricts access to prevent inadvertent administration.

#### **IPSG 4:**

Ensure correct site, correct-procedure, correct patient-surgery:

#### **Intent of IPSG.4**

Significant patient injury and adverse and sentinel events resulting from wrong-site, wrong-procedure, and wrong-patient surgery are ongoing concerns for hospitals. Such events can result from ineffective or inadequate communication between members of the team conducting the *surgical/invasive procedure*, lack of a process for marking the procedure site, and lack of patient involvement in the site marking. In addition, inadequate patient assessment, inadequate medical record review, a culture that does not support

open communication among team members, problems related to illegible handwriting, and the use of abbreviations are frequent contributing factors.

Surgical and invasive procedures include all procedures involving an incision or puncture, including, but not limited to, open surgical procedures, percutaneous aspiration, selected injections, biopsy, percutaneous cardiac and vascular diagnostic or interventional procedures, laparoscopies, and endoscopies. Organizations need to identify all areas within the hospital where surgical and invasive procedures take place; **for example**, the cardiac catheterization lab, interventional radiology department, gastrointestinal lab, and the like. The approach the hospital takes to ensuring safe surgery applies to all areas of the hospital in which surgical and invasive procedures occur.

The (US) Joint Commission's Universal Protocol for Preventing Wrong Site, Wrong Procedure, and Wrong Person Surgery™ is based in part on the principle of using multiple strategies to achieve the goal of always identifying the correct patient, correct procedure, and correct site.<sup>25</sup> The essential elements of the Universal Protocol are

- the preoperative verification process;
- marking the surgical site; and
- the time-out that is held immediately before the start of the procedure.

### **Preoperative Verification Process**

Preoperative verification is an ongoing process of information gathering and confirmation.

The purpose of the preoperative verification process is to

- verify the correct patient, procedure, and site;
- ensure that all relevant documents, images, and studies are available, properly labeled, and displayed; and

- verify that any required blood products, special medical equipment, and/or implants are present

There are various elements of the preoperative verification process that can be completed before the patient arrives at the preoperative area—such as ensuring that documents, imaging, test results, and paperwork are properly labeled and match the patient's identifiers. Waiting until the time-out to complete the preoperative verification process may unnecessarily delay surgery if paperwork or imaging are not labeled or available when surgery is about to begin. It is more likely that portions of the preoperative verification may occur more than once and in more than one place. **For example**, the surgical consent may be obtained in the surgeon's office, and then verification that it has been completed may take place in the preoperative holding area.

### **Marking the Site**

Marking the surgical/invasive site involves the patient and is done with an instantly recognizable and unambiguous mark. Ideally, an "X" is not used as the mark as it may be interpreted as "not here" or "wrong side" and could potentially lead to errors in patient care. The mark must be consistent throughout the hospital. The site is marked in all cases involving laterality, multiple structures (fingers, toes, lesions), or multiple levels (spine).

The surgical/invasive procedure site marking is done by the person who will perform the procedure. This person will do the entire surgical/invasive procedure and remain with the patient throughout the entire procedure. In cases of surgical procedures, the *responsible surgeon* typically performs the surgery and therefore would mark the site. There are different titles used for the responsible surgeon, such as attending or consultant surgeon.

For nonsurgical invasive procedures, it may be a physician who will do the procedure, and it may take place in an area of the hospital outside of the operating theatre.

There are circumstances when a *trainee* may perform the site marking—this is when the trainee performs the entire procedure, requiring minimal or no supervision from the responsible surgeon or physician. In these circumstances, the trainee marks the surgical site. When a trainee is in the role of assisting the responsible surgeon or physician, only the responsible surgeon or physician may perform the site marking. The site marking may take place any time before the surgical/invasive procedure begins as long as the patient is actively involved in the site marking whenever possible and the mark is visible after the patient is prepped and draped. **Examples** of when patient participation may not be possible include patients who are not competent to make health care decisions, children, and patients requiring emergent surgery.

### **Time-Out**

The time-out is held immediately before the start of the procedure with all team members present. During the time-out, the team agrees on the following components:

- a) Correct patient identity
- b) Correct procedure to be done
- c) Correct surgical/invasive procedure site

The time-out allows any unanswered questions or confusion to be resolved. The time-out is conducted in the location at which the procedure will be done and involves the active participation of the entire team.

The patient does not have to participate in the time-out. Once the time-out is complete, no one from the team leaves the room. Completion of the time-out is documented and includes the date and time the time-out was completed. The hospital determines the amount and type of any additional documentation.

### **Sign-Out**

The WHO Surgical Safety Checklist includes a sign-out process, which is conducted in the area where the

procedure was performed before the patient leaves.<sup>28</sup> The following components of the sign-out are verbally confirmed by a member of the team, typically a nurse:

d) Name of the surgical/invasive procedure that was recorded/written

e) Completion of instrument, sponge, and needle counts (as applicable)

f) Labeling of specimens (when specimens are present during the sign-out process, labels are read aloud,

including patient name)

g) Any equipment problems to be addressed (as applicable)

### **IPSG.5**

Reduce the Risk of Health Care–Associated Infections:

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### **Intent of IPSG.5**

Infection prevention and control are challenging in most health care settings, and rising rates of health care–associated infections are a major concern for patients and health care practitioners. Infections common to all health care settings include catheter-associated

urinary tract infections, bloodstream infections, and pneumonia (often associated with mechanical ventilation).

Central to the elimination of these and other infections is proper hand hygiene. Evidence-based hand-hygiene guidelines are available from the World Health Organization (WHO), the United States Centers for Disease Control and Prevention (US CDC), and various other national and international organizations. The hospital adopts and implements current evidence-based hand-hygiene guidelines. Hand-hygiene guidelines are posted in appropriate areas, and staff are educated in proper hand-washing and hand-disinfection procedures. Soap, disinfectants, and towels or other means of drying are located in those areas where handwashing and hand-disinfecting procedures are required.

#### **IPSG.6 Reduce the Risk of Patient Harm Resulting from Falls:**

##### **Intent of IPSG.6**

Many injuries in hospitals to both inpatients and outpatients are a result of falls. The risk for falls is related to the patient, the situation, and/or the location. Risks associated with patients might include patient history of falls, medications use, alcohol consumption, gait or balance disturbances, visual impairments, altered mental status, and the like. Patients who have been initially assessed to be at low risk for falls may suddenly become at high risk. Reasons include, but are not limited to, surgery and/or anesthesia, sudden changes in patient condition, and adjustment in medications. Many patients require reassessment during their hospitalization.



Fall risk criteria identify the types of patients who are considered at high risk for falls. These criteria and any interventions applied are documented in the patient's medical record as they provide the evidence to support the patient's fall risk category. The hospital has the responsibility to identify the types of patients within their patient population who may be at high risk for falls. The documented criteria facilitate the continuity of care among the health care practitioners caring for a patient. **For example**, a practitioner caring for a patient after he or she leaves the operating theatre may not know if the patient, who is at high risk for falls was properly assessed and if interventions were applied unless proper documentation was completed.

In the context of the populations it serves, the services it provides, and its facilities, the hospital evaluates patient falls, and takes action to reduce the risk of falling and reduce the risk of injury should a fall occur.

The hospital establishes a fall-risk reduction program based on appropriate policies and/or procedures. A fall reduction program includes risk assessment and periodic reassessment of a particular patient population and/ or of the environment in which care and services are provided (such as those conducted during periodic safety tours). Measures and interventions are implemented to reduce fall risk for those identified patients, situations, and locations assessed to be at risk.

Specific situations can pose a risk for falls. **An example** of a potential situational risk is when a patient arrives at the outpatient department from a long term care facility by ambulance for a radiologic examination. The patient may be at risk for falls in that situation when transferring from ambulance cart to exam table, or when changing positions while lying on the narrow exam table.

Specific locations may present higher fall risks because of the services provided. **For example**, a physical therapy department (inpatient or outpatient) has many types of specialized equipment used by patients that may increase the risk for falls, such as parallel bars, freestanding staircases, and exercise equipment.

All inpatients are assessed for fall risk using assessment tools and/or methods appropriate for the hospital's patient population(s). **For example**, pediatric patients require a pediatric fall risk assessment tool, as a tool developed for adults will not accurately assess their risk for falls.

In the outpatient department(s), patients are screened for fall risk; however, only those patients whose condition, diagnosis, situation, and/or location identifies them as at risk for falls are screened. If fall rate is indicated from the screening, measures and/or interventions are implemented to reduce fall risk for those patients. Screening generally involves performing a simple evaluation of the patient to determine if he or she exhibits a fall risk. Screening tools are commonly used, and include questions or items that are used to identify fall risk patients. **For example**, the questions may require a simple yes/no answer, or the tool may involve assigning a score to each item based on the patient's responses.

The hospital determines which outpatients are screened for fall risk. Location and situational risk as well as patient condition and characteristics may help identify those who should be screened for falls. **Examples** could include all patients in a physical therapy outpatient department, all patients arriving from long term care facilities by ambulance for outpatient procedures, patients scheduled for outpatient surgery involving procedural

sedation or anesthesia, patients with gait or balance disturbances, patients with visual impairments, pediatric patients under the age of two, and so on.

## REVIEW OF LITERATURE:

**Literature review done for the study is presented under the following heading.**

1. Studies related to International Standards on patient safety.
2. Studies related to patient safety measures on safe administration of medications.

### **1. Studies related to International Standards on patient safety**

Improved information and data systems are needed to support efforts to make patient safety a standard of care in hospitals, in doctors' offices, in nursing homes, and in every other health care setting. All health care organizations should establish comprehensive patient safety systems by providing immediate access to complete patient information and decision support tools and capturing information on patient safety by reporting adverse events and near misses.

A research study was done on International standards of patient care in King Hussain Cancer Center, Jordan .The purpose of the study was to explain rapid changes on

international standards. Sources including personal interviews, document review and on-site observations were combined to conduct a robust examination of KHCC's rapid changes. The changes which occurred at the KHCC during its formation and leading up to its Joint Commission International (JCI) accreditation can be understood within the conceptual frame of the transformational leadership model. Interviewees and other sources for the case study suggest the use of inspirational motivation, idealized influence, individualized consideration and intellectual stimulation, four factors in the transformational leadership model, had significant impact upon the attitudes and motivation of staff within KHCC. As a result it achieved improved levels of quality, expanded cancer care services and achieved Joint Commission International accreditation under new leadership over a three-year period (2002–2005).

A study was done on risk factors for falls as stroke patients are high risk for falling. The purpose of the study was to identify physical and social factors that predispose stroke patients to falls may reduce further disability and life-threatening complications, and improve overall quality of life. They used 5 biennial waves (1998-2006) from the Health and Retirement Study to assess risk factors associated with falling accidents and fall-related injuries among stroke survivors. They abstracted demographic data, living status, self-evaluated general health, and comorbid conditions. They analyzed the rate ratio (RR) of falling and the OR of injury within 2 follow-up years using a multivariate random effects model. As a result they identified factors such as poor general health, urinary incontinence, motor impairment, living alone, impaired hearing, and etc. are the risk factors. In conclusion this study demonstrates the high prevalence of falls and fall-related injuries in stroke survivors, and identifies factors that increase the risk. Modifying these factors may

prevent falls, which could lead to improved quality of life and less caregiver burden and cost in this population.

A study was conducted on sign-out practices among internal medicine house staff, to identify contributing factors to sign-out quality. Prospective audiotape study design was used on eight internal medicine house staff teams from medical ward of an acute teaching hospital. Quantitative and qualitative assessments of sign-out content, clarity of language, environment, and factors affecting quality and comprehensiveness of oral sign-out etc. was done on different sessions. Five factors were associated with a higher rate of oral content inclusion: familiarity with the patient, sense of responsibility for the patient, only one sign-out per day, presence of a senior resident, and a comprehensive written sign-out. Findings suggest that several changes may be required to improve sign-out quality, including standardizing key content, minimizing sign-outs that do not involve the primary team, , emphasizing the role of sign-out in maintaining patient safety, and fostering a sense of direct responsibility for patients among covering staff. The quality of sign-out process shows the standard of the organization.

A study was done about the complexities of the health care system potentially causing significant unintended adverse effects. The purpose of patient safety issue project is to report indications and to recommend potential patient safety issues .A 4 pronged strategies was developed to collect data that is background literature review, structured clinical panel reviews, expert review of ICD code in candidate of patient safety issue, and empirical analysis of potential candidate of patient safety issue. A review of previously reported

measures in the literature and of medical coding manuals resulted in identification of over 200 ICD CM codes representing potential patient safety problems.

A study was done on medication errors and patient safety in 2006. The study focused on the word error has drawn attention to prevention and what can be done to minimize mistakes and improve patient safety. The study says the word error means an act that through ignorance, deficiency, or accident, departs from or fail to achieve what should be done. As a result, the researcher says all health care institutions to follow 5 RIGHTS of medication administration to avoid medication errors thus improve patient safety.

This study was done on medication safety in the Australian acute care setting. The study was done to examine the extent and causes of medication incidents and adverse drug events in acute care. A literature search was conducted to identify Australian studies, published from 2002 to 2008, on the extent and causes of medication incidents and adverse drug events in acute care. Results of incident reporting from hospitals show that incidents associated with medication remain the second most common type of incident after falls. Omission or overdose of medication is the most frequent type of medication incident reported. Studies conducted on prescribing of renal excreted medications suggest that there are high rates of prescribing errors in patients requiring monitoring and medication dose adjustment. Research published since 2002 provides a much stronger Australian research base about the factors contributing to medication errors. Team, task, environmental, individual and patient factors have all been found to contribute to error. To conclude, medication-related hospital admissions remain a significant problem in the

Australian healthcare system. Medication incidents remain the second most common type of incident reported in Australian hospitals.

A study was done on drug-related problems, arising despite the use of a computerized physician order entry (CPOE) system. The aim of the study was to identify and estimate the drug-related problems, identified by clinical pharmacists during their routine medical rounds. They identified that common drug-related problems are non-conformity to guidelines or contra-indication, improper administration, drug interaction and over dosage. In conclusion drug-related problems are very common even after the implementation of computerized physician order entry.

A study conducted on reporting of incidents and near misses in NHS-London.. The purpose of the study was to find out the cases of under reporting of incidents and near misses as it is still a problem in NHS There were 974000 patient safety incidents and near misses in 2004-2005 reported, but as per National Patient Safety Agency, they failed to get accurate information on serious incidents and death .The investigating body found that doctors are less likely to report incidents than other group of health care providers. To top it all, the NHS simply has no idea how many people die each year from patient safety incidents. The report concludes that sufficient progress has been made to achieve the Department's plan to guarantee a safer NHS for patients.

## **2. Studies related to patient safety measures on safe administration of medications**

A study on safety promotion has traditionally focused on the safety of patients and also included systems, environments, and organizations. Safety promotion programs are designed to support community health initiatives taking a bottom-up approach. The aim of this study was to try to empirically identify factors that promote sustainability in the structures of programs that are managed and coordinated by the local government. Four focus group sessions with local government politicians and administrators in designated Safe Communities were conducted and analyzed using qualitative content analysis. Participants reported an increase in cross-disciplinary collaboration among staff categories. Support from the politicians and the county council was seen as a prerequisite. Participants reported an increased willingness to share information between units, which, in their view, supports sustainability. A regular flow of information to policy-makers, residents, and staff was needed in order to integrate safety programs into routines. In contrast to injury prevention, which focuses on technical solutions, safety promotion tries to influence attitudes.

A study was conducted on review of literature on measures of patient safety in developing and emerging countries to identify patient safety measures used in this country and to propose a method of measurably improving patient safety measurements in these countries. They used the medicine data base for 1998-2007 and identified and reviewed 23 English language articles. The outcome included 12 studies that prospectively measured patient safety and 11 studies that retrospectively measured safety .As a result the measurement of patient safety in developing countries have been infrequent and limited in scope. Establishing fundamental safe patient practices is necessary prerequisites to measuring and monitoring progress towards safe patient care in emerging and developing countries.



A cross-sectional study was conducted to explore and compare hospital and home care nurses' assessment of their information management at patients' discharge from hospital to home care before and after the hospital implemented an electronic nursing discharge note. This paper draws on the concept of inter-organizational continuity of care, and specifically addresses the contribution of the implementation of an electronic patient record. The studies have a prospective descriptive design. A questionnaire addressing the information that hospital and home care nurses exchange when patients need continuing care after hospitalization was developed and used. Hospital and home care nurses differed in the way they assessed the structures and content of the information they exchanged, both before and after the electronic patient record implementation. There is a need to take account of the different organizational contexts within which the two nursing groups work. The organizational context (hospital versus home care) has implications for the nurses' assessment of the information they exchange. In further development of electronic patient record, it is therefore essential to clarify the context-related information needs of the various health care provider groups as part of the commitment to patient safety.

A comparative study was conducted on safety culture scores to determine the scores for nursing homes and compare these results with existing data from hospitals. Data were collected from a nationally representative sample of nursing homes. From these nursing homes, administrators completed The Hospital Survey on Patient Safety Culture (HSOPSC). Subscale scores from the nursing home sample were considerably lower than the benchmark hospital scores. In addition, almost all item scores from nursing homes were considerably lower than the benchmark hospital scores. The results clearly showed that the patient safety culture scores of

nursing homes are considerably lower than those of hospitals. Residents of nursing homes may be at risk of harm as a result of patient safety errors.

A study was done on Hospital Acquired Infections as these infections are significant cause of mortality and morbidity. The aim of the study is to investigate the incidence and prevalence of hospital acquired infections in patients admitted to departments of internal medicine. The study involved seven departments and was designed as a cohort study based on reviews of medical records. Except for patients who had previously been admitted within the preceding 30 days, the study included all patients admitted for more than 48 hours during the 45-day study period. HAI was defined according to the criteria established by the Center for Disease Control and Prevention, USA. In conclusion the incidence of hospital acquired infections was relatively constant during the initial 14-day-period of hospitalization, suggesting that shortening the period will have no major impact on the incidence of hospital acquired infections.. The prevalence was 9.7%, which is in line with results from prior studies.

A study was done to measure patient safety climate considered predictive of health outcomes have begun to emerge. The study done by systematic literature review nine surveys were found that measured the patient safety climate of an organization. All used Likert scales; all covered five dimensions of patient safety leadership, policies and procedures, staffing, communication and reporting. The strength of psychometric testing varied. In conclusion achievement of a culture conducive to patient safety may be an admirable goal in its own right,

but more effort should be expended on understanding the relationship between measures of patient safety climate and patient outcome.

This study was done to determine the cost of healthcare-associated bloodstream infections (HA-BSI) in adult patients admitted to an Auckland City Hospital. A matched cohort study was performed with a 1:2 or 1:1 match in which all patients admitted between January and June 2005 who had HA-BSI were included. Controls were selected from patients admitted between July 2004 and December 2006. Patients with haemodialysis, central line-related HA-BSI were not matched with controls as the admission was related purely to that episode of infection. As a result there were 106 episodes of HA-BSI in 99 patients. Fifty-five patients were able to be matched 1:1 or 1:2 with controls, group 1. Nineteen BSI episodes were in patients undergoing renal replacement therapy by haemodialysis and the patients were admitted as a consequence of this episode of infection, group 2. An episode of healthcare-associated bloodstream infections increased the length of the hospital stay by 9.7 days and 7.9 days in group 1 and group 2, respectively. The excess cost associated with an episode of healthcare-associated bloodstream infections was \$20,394 in group 1 and \$11,139 in group 2. In conclusion there are substantial costs associated with healthcare associated bloodstream infections. A proportion of these infections can be reduced by effective infection control measures.

## **NEED FOR THE STUDY**

Safe administration of medication is one of the goal or concern for Joint commission international. Nurses in large part expressed having suffered from mental problems of medication error events. Hospital's risk management should concentrate on organizational deficit and positive error cultures. Making system improvements for safer medication use in hospital requires leadership from the top of the organization. Individual staff in every discipline are also in a position to make significant contribution to safety in the system as a whole. Given the complexity and range of services being offered, hospitals are launching numerous improvement initiatives in all clinical care and support areas. Joint commission international and other

voluntary agencies helping organizational leaders to better understand, organize and prioritize patient quality, and safety issues.

Medication errors constitute a significant public health problem and are recognized as such nowadays among healthcare professionals, societies, authorities and international organizations. This has led to seeking and implementing effective practices focused on improving medication use safety. These safety improvement initiatives are based upon progressively developing an institutional culture of safety and on establishing practices designed to reduce errors or detect them in time, thus avoiding adverse effects to patients. Among these recent initiatives are the safety practices approved by the National Quality Forum, and the National Patient Safety Goals that the Joint Commission on Healthcare Accreditation has required since 2003. Also mentioned are several strategies that have been offered to facilitate the application of these practices, among which are the Pathways to Medication Safety, the development of collaborative projects among hospitals and organizations of experts, and the inclusion of a medication safety specialist in hospitals as a support figure overseeing the application of safety measures. The challenges inherent in putting these preventive measures into real patient's care needs to be discussed. The barriers confronting this step must obviously be faced if improvements in patient safety are truly to be achieved. Patient falls and related injuries are serious problems in hospitals. Some hospitals started to apply Fall Tips to prevent patient falls by translating routine nursing fall risk assessment into a decision support intervention that communicates fall risk status and creates a tailored evidence based plan of care that is accessible to the care team patients and family members. Patient education handouts can be given to patients and relatives to enhance their knowledge on prevention of falls and fall related injuries. Joint Commission International recommends assessment and periodic assessment of patient to

identify patients under risk for fall. Such patient's needs to be monitored closely and falls can be prevented.<sup>6</sup>

Ineffective communication is the most frequently reported cause of sentimental events in most of the hospitals. Examining hospital process and systems of communication and standardizing communication practices can reduce the risks to patients in the acute care environment. Joint Commission International recommends all hospitals to implement a process or procedure for taking verbal or telephonic order in emergency situations. In this aspect the person who takes the order or information have to read back the order to make it clear and to avoid mistakes, ultimately patient safety will be improved. Effective communication is the one of the skill required for the nurses to practice as a professional nurse.

JCI Program is designed to create a culture of safety and quality within a health care facility and ensure that it strives to continuously improve patient care process and results for patients. The IPSGs are fundamental to achieve high quality health care standards and the optimal level of patient's safety. The foundation of quality patient care is a proactive program of patient safety. As patient is the main customer of health care facility, the prime aim of the organization should direct towards patient safety.

Meeting these goals helps health care facilities to ensure that a safe health care environment is provided for the patient. Compliance with standards and each International Patient Safety Goals is a requirement of JCI Accreditation too. This study is aimed towards the further awareness regarding IPSG among health care professionals. Common communication problem within the health care team and between the health care professionals can be reduced by achieving the goal 2-improve effective communication.

Also IPSGs help to establish National Reporting systems and response mechanisms that are integral components of quality assurance program. Implementing evidence based interventions reduce patient harm and improve safety. Meeting IPSGs helps to create or implement policies and legislations conducive to sustainable health oriented solutions. It helps to establish systems that respect the rights of both patients and health care providers. It also provides strong technical leadership and support to health care professionals.

The risk of health care associated infections is estimated to be 2-20 times higher in developing countries. Adhering to IPSP goal 5 reduces health care associated infections by promoting hand washing among health care providers. Unsafe practices include reuse of syringes and needles in the absence of sterilization and poor collection and disposal of dirty injection equipments which expose health care workers and the community to the risk of needle stick injuries.

## **OBJECTIVE**

To assess the compliance to JCI standards for International Patient Safety Goals (IPSG ) in BL KAPOOR SUPERSPECIALITY HOSPITAL ,NEW DELHI.

## **METHODOLOGY**

A Descriptive study was conducted for a period of three month from 10th February TO 9<sup>th</sup> of may . It was a medical audit of the following department i.e in patient ward, intensive care unit, emergency department, radiology department,ICU and All data collected were tabulated based on various types of IPSG & compliance rate were noted.

## RESULT AND FINDINGS

Percentage of the compliance for all 6 goals as collected:

The overall compliance rate for IPSG was 87% & out of all the six goals of IPSG best result was seen for the compliance of 2nd goal of IPSG i.e Improve Effective Communication which was 98%. The lowest performance was seen for the 5th goal i.e Reducing the Risk of Health Care–Associated Infections which was about 75%.

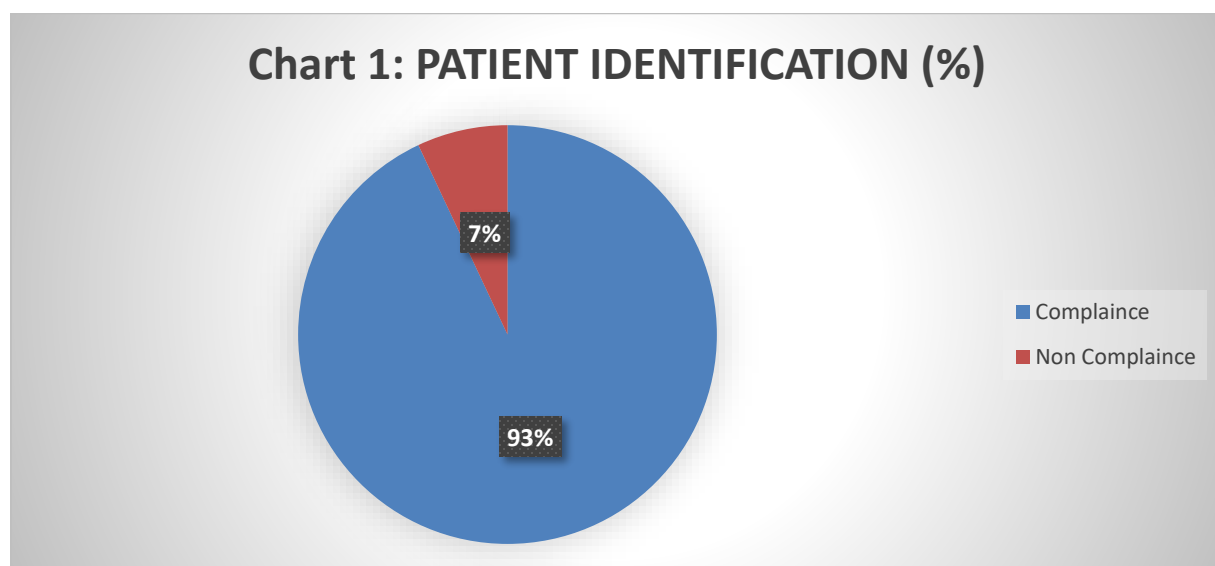


IPSG GOAL	Compliance	Non Compliance
PATIENT IDENTIFICATION (%)	93%	7%
COMMUNICATION (%)	98%	2%
MEDICATION(%)	95%	5%
SURGICAL SAFETY	96%	4%
Health Care Associated Infections	75%	25%
Fall	77%	23%

Overall compliance rate for IPSG 1 was 93% with 7% non-compliance.

Out of all component ,Compliance for pt name and MRD no & vaccutanor or bottle labelled before withdrawing the blood were 100%.Compliance rate for pt. id band checked before blood sample collection and id band are there while transferring the pt were 88% & 84% respectively.

GOAL 1	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
PATIENT IDENTIFICATION	200	186	93
PT. NAME AND MRD NO	50	50	100
PT. ID BAND CHECKED BEFORE BLOOD SAMPLE COLLECTION	50	42	84
ID BAND ARE THERE WHILE TRANSFERRING THE PT.	50	44	88
VACCUTANOR OR BOTTLE LABELLED BEFORE WITHDRAWING THE BLOOD	50	50	100



## IPSG 2

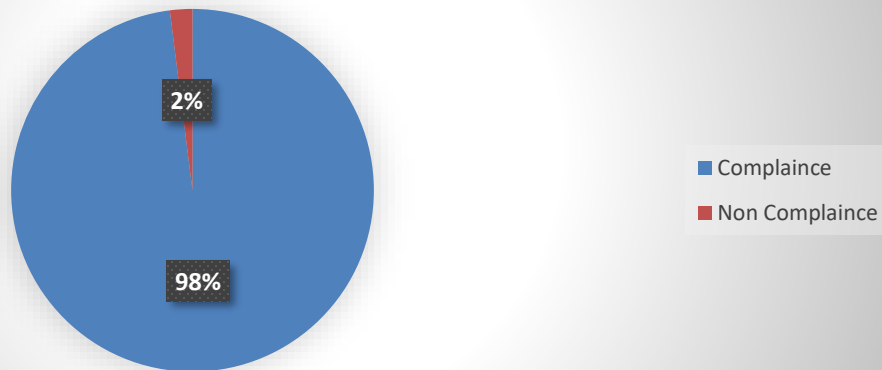
Overall compliance rate for IPSG 2 was 98% with 2% non-compliance which was highest among all component. Out of all component, Compliance for drug name, dosage, strength and

concentration with frequency and hand over communications duly filled and signed with special instructions were 100%.

Compliance for Emergency verbal order maintained and documented with name, date and time and hand over communications in patient files were 96%.

GOAL 2	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
COMMUNICATION	200	196	98
EMERGENCY VERBALORDER MAINTAINED AND DOCUMENTED WITH NAME, DATE AND TIME	50	48	96
DRUG NAME, DOSAGE , STRENGTH AND CONCENTRATION WITH FREQUENCY	50	50	100
HAND OVER COMMUNICATIONS IN PATIENT FILES	50	48	96
HAND OVER COMMUNICATIONS DULY FILLED AND SIGNED WITH SPECIAL INSTRUCTIONS	50	50	100

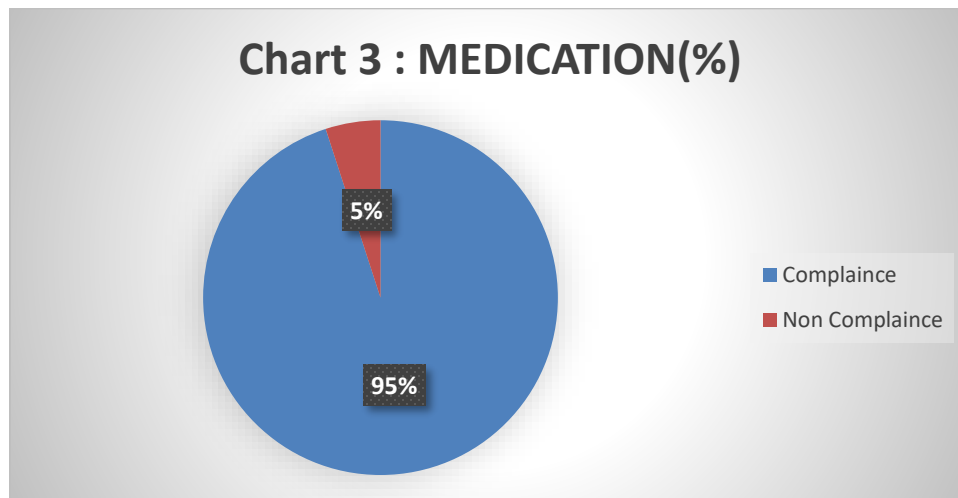
**Chart 2: COMMUNICATION (%)**



Overall compliance rate for IPSG 3 was 95% with 5% non-compliance..Out of all component ,Compliance for emergency verbal order maintained and documented with name ,date and time and concentrated electrolytes only present in icu, OT and emerency were 100%. Compliance for crash cart locked and lasa and high alert medications stored seperately or not was 96%.compliance for blue coloured warning stickers labelled on sound alike medications &pink coloured warning stickers labelled on look alike medications were 94%.compliance for lasa drugs kept seperately and uniformly was 90% which was lowest among IPSG 3.

GOAL 3	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
MEDICATION	300	287	95
EMERGENCY VERBAL ORDER MAINTAINED AND DOCUMENTED	50	50	100

WITH NAME ,DATE AND TIME			
LASA DRUGS KEPT SEPERATELY AND UNIFORMLY	50	45	90
PINK COLOURED WARNING STICKERS LABELLED ON LOOK ALIKE MEDICATIONS	50	47	94
BLUE COLOURED WARNING STICKERS LABELLED ON SOUND ALIKE MEDICATIONS	50	47	94
CONCENTRATED ELECTROLYTES ONLY PRESENT IN ICU, OT AND EMERGENCY	50	50	100
CRASH CART LOCKED AND LASA AND HIGH ALERT MEDICATIONS STORED SEPERATELY OR NOT	50	48	96



#### IPSG 4

Overall compliance rate for IPSG 4 was 96% with 4% non-compliance .Both the component ,time out in ot, cathlab, endoscopy room mentioned prior to surgery and pre op surgical checklist in file were 96% each.

GOAL 4	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
<b>SURGICAL SAFETY</b>	<b>100</b>	<b>96</b>	<b>96</b>
TIME OUT IN OT, CATHLAB, ENDOSCOPY ROOM MENTIONED PRIOR TO SURGERY	50	48	96
PRE OP SURGICAL CHECKLIST IN FILE	50	48	96

**Table 4: Surgical Safety**

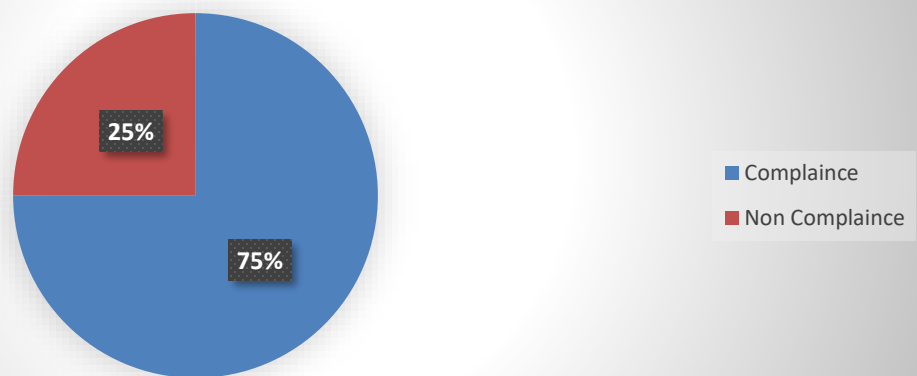


Overall compliance rate for IPSG 5 was 75% with 25% non-compliance which was lowest among all component. Out of all component compliance for hand washing followed after touching was 94% followed by hand washing and hand disinfection followed was 92%. Compliance rate for hand washing followed before clean and aseptic procedure was 81%, hand washing followed before touching a pt was 72%, hand washing followed after body fluid exposure 68%. compliance rate for hand washing followed after touching pt's surroundings was lowest i.e 46%

GOAL 5	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
HEALTH CARE ASSOCIATED INFECTION	300	227	75
HAND WASHING AND HAND DISINFECTION FOLLOWED	50	46	92

HAND WASHING FOLLOWED BEFORE TOUCHING A PT	50	36	72
HAND WASHING FOLLOWED BEFORE CLEAN AND ASEPTIC PROCEDURE	50	41	81
HAND WASHING FOLLOWED AFTER BODY FLUID EXPOSURE	50	34	68
HAND WASHING FOLLOWED AFTER TOUCHING A PT	50	47	94
HAND WASHING FOLLOWED AFTER TOUCHING PT'S SURROUNDINGS	50	23	46

**Table 5:Health Care Associated Infections**



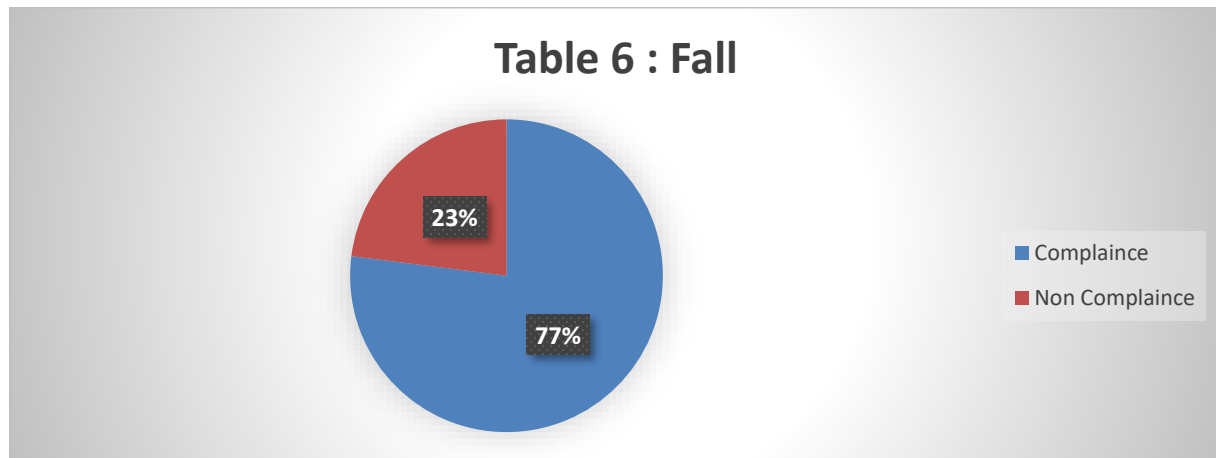
## IPSG 6



Overall compliance rate for IPSG 6 was 77% with 23% non-compliance..Out of all component ,Compliance for is caution board placed while mopping the floor and is stair case non-slipery and obstruction were 100%. Compliance rate for patient accessed by nurse on daily basis and documented was 94% compliance rate for bed rails upright while in the room and bed rails upright while transportation were 86% each.compliance for strap belts on wheel chair while transportation and assess all in patients and outpatients for risk of fall were 42% and 36% respectively.

GOAL 6	TOTAL NO	NO OF COMPLIANCE	% OF COMPLIANCE
<b>FALL</b>	<b>350</b>	<b>272</b>	<b>77</b>
ASSESS ALL INPATIENTS AND OUTPATIENTS FOR RISK OF FALL	50	18	36
BED RAILS UPRIGHT WHILE IN THE ROOM	50	43	86
BED RAILS UPRIGHT WHILE TRANSPORTATION	50	43	86
STRAP BELTS ON WHEELCHAIR WHILE TRANSPORTATION	50	21	42
IS CAUTION BOARD PLACED WHILE MOPPING THE FLOOR	50	50	100
PATIENT ACESSED BY	50	47	94

NURSE ON DAILY BASIS AND DOCUMENTED			
IS STAIR CASE NON-SLIPERY AND OBSTRUCTION FREE	50	50	100



## DISCUSSION

The overall compliance rate for IPSP was 87% & out of all the six goals of IPSP best result was seen for the compliance of 2nd goal of IPSP i.e Improve Effective Communication which was 98%. The lowest performance was seen for the 5th goal i.e Reducing the Risk of Health Care–Associated Infections which was about 75%. Overall compliance rate for IPSP 1 was 93% with 7% non-compliance.Out of all component ,Compliance for pt name and MRD no & vacutanor or bottle labelled before withdrawing the blood were 100%.Compliance rate for pt.

id band checked before blood sample collection and id band are there while transferring the pt were 88% & 84% respectively.

Overall compliance rate for IPSPG 2 was 98% with 2% non-compliance which was highest among all component. Out of all component, Compliance for drug name, dosage, strength and concentration with frequency and hand over communications duly filled and signed with special instructions were 100%. Compliance for Emergency verbal order maintained and documented with name, date and time and hand over communications in patient files were 96%.

Overall compliance rate for IPSPG 3 was 95% with 5% non-compliance. Out of all component, Compliance for emergency verbal order maintained and documented with name, date and time and concentrated electrolytes only present in ICU, OT and emergency were 100%. Compliance for crash cart locked and LISA and high alert medications stored separately or not was 96%. Compliance for blue coloured warning stickers labelled on sound alike medications & pink coloured warning stickers labelled on look alike medications were 94%. Compliance for LISA drugs kept separately and uniformly was 90% which was lowest among IPSPG 3.

Overall compliance rate for IPSPG 4 was 96% with 4% non-compliance. Both the component, time out in OT, cathlab, endoscopy room mentioned prior to surgery and pre op surgical checklist in file were 96% each.

Overall compliance rate for IPSPG 5 was 75% with 25% non-compliance which was lowest among all component. Out of all component compliance for hand washing followed after touching was 94% followed by hand washing and hand disinfection followed was 92%. Compliance rate for hand washing followed before clean and aseptic procedure was 81%, hand

washing followed before touching a pt was 72%,hand washing followed after body fluid exposure 68% .compliance rate for hand washing followed after touching pt's surroundings was lowest i.e 46%.

Overall compliance rate for IPSCG 6 was 77% with 23% non-compliance..Out of all component ,Compliance for is caution board placed while mopping the floor and is stair case non-slipery and obstruction were 100%. Compliance rate for patient accessed by nurse on daily basis and documented was 94% compliance rate for bed rails upright while in the room and bed rails upright while transportation were 86% each.compliance for strap belts on wheel chair while transportation and assess all in patients and outpatients for risk of fall were 42% and 36% respectively.

## **CONCLUSION**

The fundamental important criteria for the delivery of a safe system is leadership and accountability and there must be the right balance between organization and governance of healthcare system. Every one is responsible to ensure patient safety in the system of healthcare and without effective leadership, individuals may lack motivation in their practice and will later become complacent. Positive culture in the organization is characterised by open communication, shared perception, mutual trust on the importance of safety must be created

by leaders. Accountability must start from individual, team and system level and the top management must take the lead in ensuring system is in place and followed by every healthcare players in the organization. Continuing education is a must for every one in the system because Healthcare professional can no longer be considered as trained for life. A system of life long learning must be mandated followed by credentialing, privileging and competency assessment. Specific education and training are also required for professional where the program should include a specific module on patient safety. Another important issues that need to be look into seriously is recruitment of healthcare professional where capturing information in relation to previous competency or conduct is very important for the management before making any decision to recruit the employee.

## **LIMITATIONS AND RECOMMENDATION OF THE STUDY**

Findings and interpretations from this study should be considered in light of the following limitations:

1. This study was limited to only one hospital in the state, Delhi therefore the results cannot be applied to other categories of healthcare organizations.

2. The sample size was not that large and represent only some of the departments in the hospital
3. It could be inferred from the study that there is overall compliance of IPSP standards of JCI with few variations in some of the elements that could be achieved by training and motivation of the staffs for a more systematic pursue of the policies and procedures laid down for IPSP

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