INTERNSHIP TRAINING

at

VENKATESHWAR HOSPITAL

Patient identification and measures to overcome the error

by

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ENROLLMENT NO- PG/19/064

UNDER THE GUIDANCE OF

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The certificate is awarded to

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In recognition of having successfully completed her

Internship in the department of

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and has successfully completed her Project on

Patient identification and measures to overcome the Error

Date- 1st June, 2021

Organization- Venkateshwar Hospital

She comes across as a committed, sincere & diligent person who has

a strong drive & zeal for learning.

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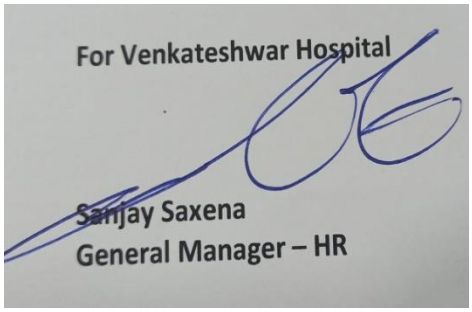

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I wish her all success in all her future endeavors.

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Name of the student: Priyam Singh

Dissertation Organization: Vekateshwar Hospital

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VENKATESHWAR HOSPITAL

- Introduction

  Venkateshwara hospital is a multi-specialty hospital in Dwarka, Delhi. Latest technology expert doctor and specialists are there to provide best medical facility. They are well equipped with the modern technology and provide the best treatment to the patient.

  Vision- to be on the top of the healthcare global map

  Mission- to provide excellence in the healthcare with the help of evidence-based practices by the help of highly skilled professionals having latest technology

ORGANOGRAM

Figure 1: Organogram

Chairman (Mr. Rajpal Solanki)- has a lot of duties to guideboard of members to instruct them about the annual plans, their priorities and strategies to follow.

Advisory Council (Dr. Y.P. Bhatia)- Providing technical expertise or advice in specific areas such as technology, science, health, policy, law, marketing, public relations, etc. Fundraising for a specific project.

Chief Executive Officer (Mr. Kamal Solanki) - he/she ensures the facilities being provided to the patient has to be well managed and of great quality. They also take concerns of financials of hospitals and patient satisfaction also the development of organization.

Chief Operating Office (Mrs. Gunjan Sinha)- he/she takes care of daily operations in the hospital with that the profit and loss of hospital. When CEO is not their COO acts on his part.

Head of department (HOD)- all HOD's works with physician, seeing patients care, policy decisions, finance and accounting also take initiative to make all the functions smoothly and successfully happening.

Superintendent- suggest a budget that make sure that it provides excellent services, profits and patient satisfaction, set their teams short- and long-term goals.

Services provided by the hospital

Anesthesia

Bariatric weight loss surgery

Clinical psychology

Dermatology and aesthetics

Nutrition and dietetics

Diabetes and endocrinology and metabolic disorder

ENT and cochlear implants

Foetal medicine

Internal medicine

Nuclear medicine

Ophthalmology

Pediatrics and neonatology

Pediatric oncology and hematology

Pediatric urology

Obstetrics and gynecology

Plastic, reconstructive and cosmetic surgery

Pain management

Rheumatology

Pathology and lab medicine

Physiotherapy

Imaging and interventional radiology

Department of transfusion medicine and blood center

Emergency

Human Resources Policies and Practices

HRM is the action of bringing people and organization close to each other so that both their needs are fulfilled.

The HRM purpose in this hospital comprise keeping the service records of all staff incorporate holiday, appraisals, incentives etc. Also, some affairs related to employees; trips, comfort, needs.

1. Recruitment function

   They deal with the collection and sorting out the resumes that has come to them according to the announcement specified on the website or in the newspaper. Then managing the interview of short-listed resumes that would be conducted by HR manager for hiring of nursing staff, Nursing Superintendent need to take the interview for the selection of nurses and ward boys for hiring if the new medical staff there must be the interview taken by the chief operating officer and advisory council of the organization with the help of HRD. The assignation letter is provided by the HR mentioning the pay in it which the employee will get. After that employee connect and gives their part in organization development.
2. Teaching and instruction function

Teaching provision in corporate some points: purity, wellbeing and security, hand sanitizing, any accident or act of god, stability and tidiness, digital machine for staff attendance. Teaching is must for fresher's also for experienced employee.

3. Administration purpose

   This purpose incorporates wellbeing, medical scrap, attendance, work and employment, government order has to do with employment.

4. Employee benefits

   It includes wellness programs, compensation, childcare etc. Organization use benefits to attract more manpower.

5. Promotion

   The promotion gives a good and valuable feeling to employee and that gives a motivation to the employees want from their career and then analyses and design the appropriate career paths for them.

6. Career planning

   They keep a keen watch on knowing that what employees want from their career and then analyze and design the appropriate career paths for them.

7. Job satisfaction

   Job satisfaction refers to a individual personality and interest towards the job if the job is of the employee interest then the employee will be satisfied but if not the employees will not be satisfied and this may lead to organization drawback as when the employee will not be willing to do work and give their best you cannot expect a good outcome from them.

8. Employee evaluation

   Employee evaluation is the structured, regular and unbiased evaluation of an employee superiority and capability on his current job. Employee evaluation is a process to evaluate how well a employee perform their jobs when compared to a set of standards, and then sharing the communication with those employees who all are the appraisal candidates. The evaluation needs to be fair, and all the employees should be satisfied with the decision after analyzing and evaluation the performance on all aspects the one who gets the appraisal will be announced.

Challenges in HR dept.

- Organization faces regular compulsion to set off fruitful, creative and give finest care.
- HR matters restrict the health arrangements
- Insufficient training at various levels
- Rewards not linked to performance
- Target oriented performance appraisals
- Insufficient evaluation of skills and emotional ability during hiring.

Observations and learnings in the hospitals:

- Little bit knowledge of finance and information systems
- Excellent leadership skills- leaders motivate other people to follow a good and ethical route in life. These skills are very essential because there is need for certain people to take the responsibility and help people. Without anyone leadingthe group, it ishard to run large groups of people, set unified goals, and make achievements.
- Good Communication & Organizing Skill
- Friendly personality
- Ability to handle people and pressure
- Quick decision-making capability
- Patience- this is the key to work in a hospital environment or any corporate environment.
- Excellent verbal & written communication skill- after working in the hospital the skills like verbal and written communication skills develop naturally. Also,these skills help an individual very much for a bright future.
- Even the most terrifying environment feels comfortable with time- I was nervous in being in the intense hospital environment. But once you start working there you feel very habitual of the environment. Everything seems so frightening to me, especially when I'm in the place where everyone knew each other, and they know their job that what to do and what not to do. In starting I started thinking that maybe I'm not meant for this. but after few days that place only felt like no strange and was very welcoming.

- At times doctors must not know something and that's perfectly fine- medical field is a very big field. No one can know everything. In my work experience in the hospital. I have witnessed sometimes that after diagnosing patient still doctors have no idea what is wrong with the patient. It is the nature of the medical field the study and the knowledge does not stop in there. This is hard for a doctor to register but to ignoring this is not a nice quality. And no doctor should think that they know everything. Also, if you be honest with the patients, they will respect that.
- Joint work is a key part of your job- healthcare workers work in team for almost everything they are asked to do. Excellent team working skills and good communication and coordination helps to achieve a good outcome.

ABSTRACT

Introduction: This study makes an attempt to identify barriers & solutions in implementation of IPSG goal 1-Correct Identification of Patient.

Methodology: A Live audit was conducted in multi speciality hospital for the period of two months, which included Pre- intervention, Intervention and Post-intervention audit. In first phase 150 samples were observed, followed by 150 in post intervention phase. 5 parameter audit list as prepared according to which markings were given to parameters, 0 for non-compliance and 5 for partly compliance and 10 for fully compliance.

Results: The major concern was identifying patients using two identifiers which showed improvement in compliance from 6% to 31%. And identifying patients with UHID which showed improvement in compliance from 5% to 16%.

Conclusion: Patient identification is a very important Patient Safety Goal which is to be followed in hospital before any interaction and procedure with patients. It makes sure correct patient is identified and correct treatment is given to that respective patient.

Keywords: Correct Patient Identification, Audit, Compliance, Patient Safety.

Chapter 1

Introduction

INTRODUCTION

International Patient Safety Goals

The Joint Commission International (JCI) expanded the International Patient Safety Goals in 2006. The goals were taken from the JCAHO's National Patient Safety Goals. In JCI-accredited hospitals compliance with IPSG has been observed since January 2006. To help hospital to execute IPSG standards the JCI approves targeted solution tools (1).

There are 6 Patient Safety Goals (2).

Figure 1.1: International Patient Safety Goals

Source: https://medicuality.com/internatioanl-patient-safety-goals/

Patient Identification

Throughout the patient's experience patient identification happens in the care continuum. A care process map is established by ECRI to check the movement of patient in health care setting and to know how much patient identification is important. There are three distinct stages in patient's care procedure for reviewing patient identification events:

1. Intake (i.e., registration, scheduling)
2. Clinical experience (e.g., diagnosis, treatment, monitoring, discharge/visit completion)

3. Post-experience (e.g., referrals, health information exchanges, electronic prescribing)

On all three stages patient identification with at least two identifiers is always important as well as various technologies with features that facilitate patient identification. These technologies include electronic health records (EHRs), computerized provider order entry (CPOE) systems, bar-code scanners, physiologic monitors, electronic prescribing capability, and more. While the inappropriate use of these technologies can contribute to wrong-patient errors, when used properly these systems also play a role in preventing identification mistakes.

The patient identifiers that are approved basically involve patient name, date, place of birth, address, gender, medical record, individual healthcare identifier, passport, driving license and/or other valid documents.

Patient identification is to ensure patients are correctly identified through a color coded label or wrist band on hand unique identification number.

e. g. Name/IP No./Age/Sex ensure delivery of right treatment/procedure.

- General- White wrist band on left hand
- Vulnerable- Blue
- Allergy- Medicine/food/blood product green wrist band on left hand
- Yellow- for diabetic and renal patients
- Mother- Blue wrist band at the time of admission (before delivery)
- After delivery/caesarian- Blue band for baby boy and pink band for baby girl (with details of mother - mother name/IP No./Age/Sex) and same band is given to mother
- Dead body- white tape on chest and over the mortuary sheet- Name , Surname, Sex, Age, UHID No, date of death , time of death, MLC no.

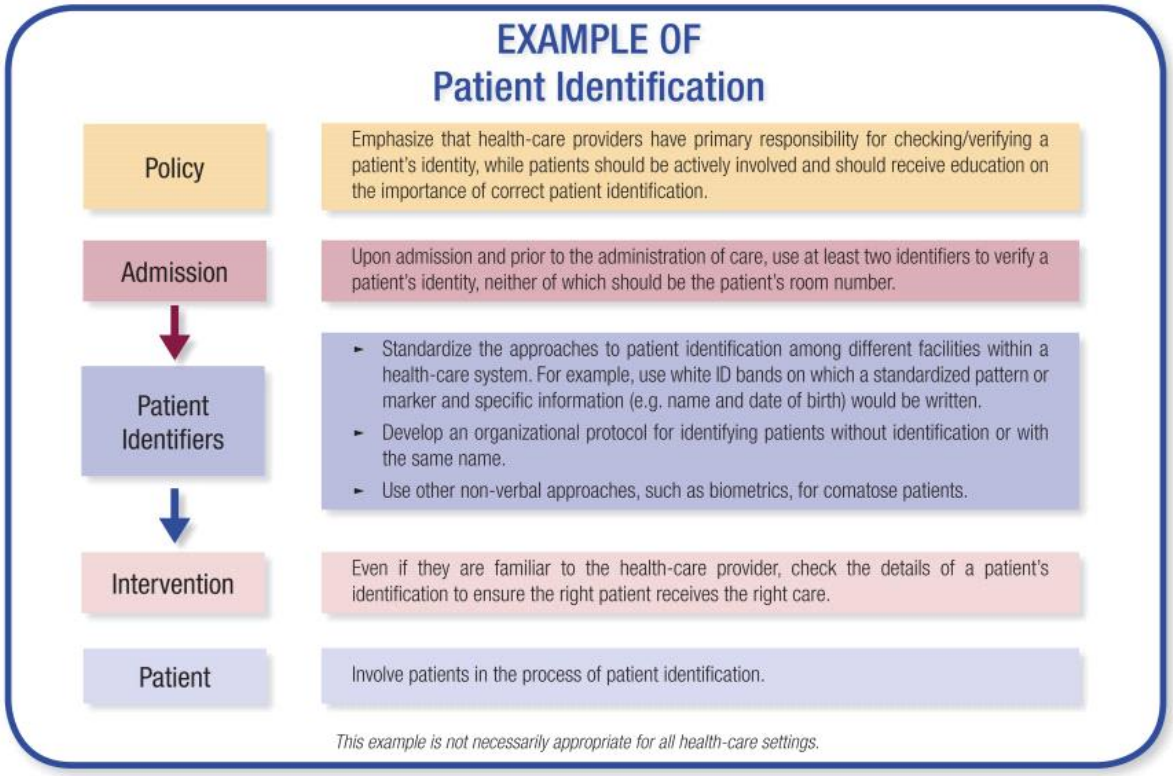

Figure 1.2: Example of Patient Identification

Source: https://www.who.int/patientsafety/solutions/patientsafety/PS-Solution2.pdf

Patient Identification Indicators

Patient identification indicators are the details that are directly related to the patient's identity that helps the staff to make sure for whom the service or treatment is scheduled. All over the healthcare sector, the mistakes to not identifying patients correctly continue to happens in testing errors, medication errors, wrong person process, transfusion process and the discharge of children to the wrong families or guardians.

The process of patient participating in identifying themselves and using "two patient identifiers" is important in betterment of the relativity of the patient's identification procedure. A correct match is made between the service or treatment and the individual with the help of two identifiers. This procedure will help remove mistakes and increase patient's care.

Patient identifier options are:

- Name

- UHID
- Date of birth
- Phone number
- Social security number
- Address
- Photo

The two identifiers that we need to confirm should be directly connected to patients and the same two identifiers related with the specimen container, blood product, medication, treatment, or process.

Patients could think that why staff is confirming their identity again and again. Staff members should educate the patients and their attendees in every step that these process are there to make sure the right care is given to the right patient all the time.

Patient Identification Error

Patient identification errors can cause harm, or the possibility for harm, when the information of the patient is not correct and is connected to an activity or action (6). Mismatching between a patient and the care provided to them can be very risky in regards of patient safety. In any types of clinical activities these errors can be seen, such as supportive (such as patient admission processes), therapeutic (medication administration, surgery), diagnostic (such as radiology or pathology testing).

Patient identification errors can be caused by:

- Staff cannot understand which information is for which patient when two patients are misguided among one another.
- The services which is been provided (including treatments / medications/ procedures) is not clearly accepted, which tends to right may treatments / medication/ procedures not applied to the right patients.

<u>For these errors to be minimized:</u>

Each patient should be uniquely identified in an obvious manner.

- The process of identification is a constant thing that should go throughout the phase of care.
- Every process/medication/treatment should be appropriately identified in an

obvious manner.

- All requests, medications, process, devices, etc used on the patient are all tied to identification. In the patient journey, these are crucial points where the chances of errors are highest. When any misidentification event happens during the patient journey, it includes:
- Reason for the misidentification.
- Harm of the misidentification.
- For patient safety a level of seriousness should be there.
- Technology should be used to minimize the occurrence of identification errors.

Five Moments of Patient Identification

According to JCI, there are 5 moments of patient identification. These are:

- Before providing any treatment or procedure.
- Before administering blood or blood components.
- Before administering medications.
- Before taking samples and other specimens for clinical testing.
- Before shifting patient from one unit to other.

Patient Identification Information

The patient identification information will include the following details:

- Full name of the patient

- Unique Health Identification number popularly known an UHID
- Date of Birth
- Date of Admission
- Bed

But, when identifying a patient, it is a general practice to use 2 identifiers which are:

1. Full name of the patient
2. UHID

It is a good practice to ‘Check verbally’ too while identifying the patient.

Chapter 2

Review of Literature

LITERATURE REVIEW

Patient identification is the process of "correctly matching a patient to appropriately intended interventions and communicating information about the patient's identity accurately and reliably throughout the continuum of care". In patient identification, physical identification included also with the reliability increased due to technologies in the patient identification system. Correct identification of patient is unique and very important and doesn't change its nature. The increasing demand of the patient's data is used again and again by multiple stakeholders of the health care setting is done by the technologies, applications and proper functioning processes for accurate patient identification system. Each and every organization has their different ways of identifying patients and collection of information. Also in world few countries use unique patient identification (UPIs) that helps in correct patient identification and in U.S. they use the national unique patient identification to increase security and patient's privacy.

Over the decade health care sector is more focused on patient safety. Brazil focused more on the release of the National Patient Safety Program (NPSP) since 2013, April. This program helps in setting up the protocols for implementing the guidelines of international safety and focusing on patient safety as well in the health care services (7-8).

Quality of care should be provided to the patients and followed by safety check should be done to minimize errors in health institutions. These are focused on the goals of the six patient safety specified under the supervision of World Health Organization (WHO), correct identification of the patient is goal number one.

Process in health care institutions follows by patient identification which is the important part of the care giving procedures if done correctly it minimizes the errors and failures of patient identification to a large extent and prevents risk to patients by the accurate protocols. The main cause of many problems in health sector is the incorrect identification of patients. Additional efforts must be done on accuracy in patient identification and minimizing the errors that is happening as incorrect identification can provide harm to patients is a serious issue in health care sector.

The first objective of national patient safety is the patient identity that is made in 2003 the Joint Commission on Accreditation of Healthcare Organization (JCAHO) to make sure quality of care, ensuring patient safety for the patients and health sector accreditation (12). Patient identification can be described as " first a reliable identification of the individual as the person for whom the service or treatment in intended, second to match the service or treatment to the individual."(13)

Inaccuracy in patient identification can start happening from the time of the registration to the discharge process can happen at any time at any phase. The wrong data that is entered in the computerized record by mistake can harm the care giving procedure. The information that is provided on the wristband of the patient should be correct and reliable and should match with the computerized records as it is the only source of connection between health care team and patient. If wristbands is missing on patients hand or if the information is not correct and staff cannot rely on that data the chances of errors become much higher.

Nowadays, inaccuracy in identification of patients depends upon the variety of technologies that are not operated properly also with some technologies there are challenges and limitations. Inaccuracy in identification of patient leads to harm to patients, bad decision making, risk of patient privacy, resulting in duplicate records. When multiple patients mixes up and misunderstanding is created risk of patient safety increases as data is not correct in the records such as radiology, laboratory, imaging and it influences in the medication errors. And when multiple records are present of the same patient the staff can miss out some important information about the patient because of the twin records. Due to these cases the decision of care given on the insufficient information is not reliable.

A multicentre study in United States reviewed wristbands identification around 2,463,727 and errors identified were around 67289 (2.7%) in which 49.5% errors occur due to absence of wrist bands, conducted in 712 hospitals of U.S. (17) The same was also done in which identification wristbands were there was around 451,436 in which errors was 28,800 (5.7%) and again the same problem caused by the absence of wrist bands were around (64.4%) conducted in 204 small hospitals (18).

In Wales and England, the National Patient Safety Agency (NPSA) stated in a publication that most of the errors are related to wristbands in 2007. Wristband identification is a very vital process and staff should know the protocols and ensuring safe practices by that as it gives you assurance of patient safety by doing right we can overcome failures (19).

During 2004 and 2008, 487 cases of patient identification were interconnected in several health care institute in Australia (20). In a hospital in Brazil the review of 385 patients were done and among them errors found was 11.9% with the identification wristbands and amongst them 4.2% didn't have the wristbands present (21). In Brazil only, the same study was done to check the compliance rate of the identification with wristbands for that 800 patients were analyzed in the obstetric clinic and the compliance arte came out to be 58.5% and 22.3% in obstetric surgical center (22).

The Emergency Care Research Institute (ECRI) managed substantial research between 2013 and 2016 at 181 health organizations, in many countries and examined 7,613 wrong patient events occurring from January 2013 to July 2015 that were submitted and may represent only a small part of all wrong-patient events occurring at the organizations, ECRI officials said. Of the 7,613 wrong-patient events studied, about 9% led to temporary or permanent harm or even death (23).

William M. Marella, ECRI Institute executive director of PSO operations and analytics, said in a statement. "We've seen that anyone on the patient's health care team can make an identification error, including physicians, nurses, lab technicians, pharmacists and transporters."

There are two purposes of patient identification: first is to safely identify a patient to give proper care and services to the individual, second is to verify the patient is receiving the desired treatment or not (24).

By the evidence we came to know, that there is need for improvement and for that interventions to be done is important and it should include both the staff and the patients to help reduce patient identification errors. Several programs and action plan is made to ensure that the correct procedure of identifying patients is followed and there collected data is checked before going for

a intervention to know how much compliance rate is present and according to that decision is taken.

Plan of action suggested by world health organization (WHO) for all the health care institutes to ensure correct patient identification like staff should realize their responsibility to confirm the identity of the patient who is receiving the treatment or the services. The responsibility will inspire the staff for the use of at least two identifiers that are name and date of birth before giving any treatment or services to the patient, while transferring patient to other unit or some other hospital. The programs tells us how much they work on day to day life and how much they are successful in reducing the errors within the health institute with the technological resources provided. Clear instructions should be provided for the protocol that needs to be followed. It motivates the patient and attendees to participate during identification of the patient. Hands on training should be provided to the staff and should know the significance of the process and its pros and cons also reliability or correct identification (25).

Two reports were revealed by the institute of medicine (IOM) over 10 years ago. To Err is Human: Building a Safer Health System, (26) (IOM, 1999) concluded have tens of thousands of people die each year as the result of errors that otherwise could have been avoided one example is deaths due to medication errors. In response, Crossing the Quality Chasm, (27) (IOM, 2001) define six aims for improvement and 10 rules for redesign, with the first aim being "Safe: avoiding injuries to patients from the care that is intended to help them" 2 and the sixth rule for redesign being, "Safety is a system property. Patients should be safe from injury caused by the care system. Reducing risk and ensuring safety require greater attention to systems that help prevent and mitigate errors."(28)

Failures in identification process may happen in any stage of health care phases. The individual identity should be relevant for whom the treatment is intended also and the treatment or service should be reconfirmed before giving to the patient. Patient identification indicators are person’s name, telephone number, date of birth or any other needed identifier.

The other healthcare areas where the patient’s identification happen are surgical procedure, drug intended, blood transfusion and phlebotomy. The working hours of the clinical staff increases in

the number for caring of the patients and increase in the process of hand over and communication problems in between the clinical staff (30). The joint commission in the U.S. stated that mishappening in the patient identification process is the main cause of failures in the

health sector and so to improve the scenario national patient safety goals was introduces in the year 2003, for an reliable source for improving patient identification (31).

There are technologies like bar coding which make better process for identification of patient's (32-37). These technologies are cost effective. Each and every technology for correct patient identification and helps in planning the proper procedures for the identification and aiming to provide risk free care and reducing errors.

For reduction of the errors that affect the quality of the specimens the focus must be on venipuncture procedure by the phlebotomist. Every venipunture procedure should include phlebotomy. This heaps to follow the protocols of everything like specimen collection protocol, transportation, handling and labeling of blood samples. Identify the patient's every time properly. The phlebotomist has the responsibility of identifying the patient's with at least two identifiers that are the full name and the unique patient identification (UPID) and date of birth. The identification indicator doesn't include the patient's room number, bed tag or the location in the ward.

It is not acceptable to ask the patient to state his or her name to the phlebotomist. For example, the phlebotomist should say, "Would you please tell me (or spell) your name and birth date."The phlebotomist shouldn't say, "Are you Sally brown, and is your birth date June 1, 1925?" If this is a hospital inpatient, patient's wristband should be checked and verify that the name and hospital number or medical record number should complement the patient information on the test order. Never draw a patient whose identity is not established or is in conflict. If there is a difference, the phlebotomist must STOP and seek help to have the difference resolved before beginning with the venipuncture.

If the patient is an outpatient and does not have the wristbands with them ask the patient only to state his or her name and date of birth. An ID with picture present on it picture ID, such as a driving license, will help in positive patient identification (38).

In a lot of countries the system of patient identification and information is been weak since many years. Often the records of hospitals and clinical record are paper base or somewhere there is information system that faces difficulty in aggregating data between facilities or conveying or transferring of the data and records. Worldwide there are 1.1 billion patients who lack their original identity and information and does not get the desired services and care at all. Due to this government also faces difficulties in justification or expansion of any health insurance programs as its hard to know who all people are eligible for insurance benefits also hard to know who all beneficiaries are included and who all are left for inclusion criteria. This leads to difficulties faced by health care providers of many countries in aiming of improvement of public health scenario and make the programs reach in highest level to the people who doesn't have access to quality health care services which they need.

Since some years health care sector have shown some progresses and improvements that allows to overcome many errors and failures that has happened in past. For example, as staff and health care providers got comfortable and adapted "e- health" platforms and electronic health records (EHRs) it's like a digital information system. WHO stated in 2016, countries that adapted an EHR system is around 47%, some countries adapted mobile health ("mHealth) application is around 83%. These improvements have been seen by the idea of identification systems in the health sector, like use of UPID number or individual health card that is issued by the national health insurer or the Ministry of Health and should be used by all the facilities worldwide. By this many benefits of operational identification systems can be given to health care providers, patients and several government ministries. With the help of correct identification and having correct information regarding patients and is able to transfer data, patient management is easier, treatment of quality enhances, burdens of administration minimizes, access of insurance is provided, data collection enhances and fraud cases is reduced. A health ID card is quite expensive to use and provide detailed data that is may be hard to operate and troublesome to patients.

To create a better industry of health care with good facilities operational identification system is being adapted by several countries like unique identification number, national ID and population registers as to be double sure for authentication, verification and identification of patient and their eligibility. Foundational system is much more beneficial and care additional than operational system

There are some limitations attached to foundational systems in health care. For example, in this system there is risk to privacy if technical protection, legal protection and administrative control gone wrong. Foundational systems faces these types of challenges also those who have low coverage faces challenges for their merging into the health care systems. These are the possible risks that we need to look forward to overcome for the best results in patient identification systems in health care sector.

There are three benefits of foundational identification system over health specific operational identification system. Operating foundational system with the help of exchange of health data, benefits of insurance and under EHRs. The three benefits are:

1. Increased efficiency in the identity ecosystem: By developing both the identification system foundational system as well as health specific system, countries may be a step ahead in keeping away duplicate information or twining of information and collection of data. Foundational systems is much more easier for the patient's and health care providers to use as it reduces burden of carrying additional document of your identity, multiple forms etc.

2. Opportunities for interoperability: The databases will be interoperate (i.e., to transfer or exchange information or solve each and every doubt) when the healthcare system uses beneficiary identifier or unique patient IDs that is same as other programs (e. g, education, taxation, social protection etc). For example, if an organization takes a initiative to provide eligibility, they could confirm socio economic data of the place and check the below poverty line status of people also reducing unnecessary data collection and only including required data, with the confirmation of the enrollment.

The right operation of systems globally will improve the health care sector in correct identification and rapid collection of data for purposes like research and planning. When we will find the possible risks that can harm a individuals privacy and illegal framework then only to avoid all these possibilities we will take these steps in consideration and execute the needful to save the important information and preventing the misuse of it.

3. **Mutual reinforcement of identification systems:** When combine the health care systems and foundational identification systems there are chances of delivering best health care services and betterment of public health management and also gives strength to system of patient identification all over. This happens to be in between civil registration systems and identification systems shows strong link. To strengthen and streamline these procedures we need to include foundational identification systems into health care system and should be more careful about correct identification of each patient.

The system in U.S. for patient identification depends on patients personal details like name, date of birth which are mostly different for each individual. Due to this there are chances of unique records with only 90 to 95% this shows increase in twin records or duplicate records that can cause patient safety risk (41).

The below points are given by WHO.

1. **Ensure that health-care organizations have systems in place that:**
    a. Healthcare workers and staff have their primary duty to correctly identify patients and see if the correct patients are given the correct services (e.g. process, lab results, specimens) or not.
    b. We should always use at least two identifiers and none of them should be patient's room number the only valid identifier could be name and date of birth and it should be verified before giving any care or shifting the patients to other setting or in some other hospital
    c. All part of the health care system has the standardization of patient identification process. For example, the white ID band which is provided to the patient should contain the information like name and date of birth or

implementation of the technologies like finger print sensor.

d. There should be clear instructions for the people who does not have accurate identification or mixes up with the same name. The patients who are unconscious or confused their identification should be asked to their attendees.

e. Patients should participate in the identifying process and help the staff in the initiative.
f. Patient should be present over there when their labeling of the containers and blood samples should be done in front of patient's.
g. Always maintain identities of patient sample in all the stages of patient care whether it is pre-analysis, analysis and post-analysis
h. Ensure the protocols of asking any sort of query for any kind of results and if any questions occur when medical history of the patient is not a priority for the staff. .
i. There should be rechecking at every step of patient's encounter to stop any kind or errors that may happen

2. **In the training of the staff there should be an additional training for the way of identifying patients and then verifying them that comes in professionalism development for the staff and following the protocols.**
3. **Staff and care providers should educate about the necessity and reliability of identifying patients correctly for the benefit of the patients in a optimistic way so no patient or the attendees get offended (42).**

Chapter 3

Aims and Objectives

Aims and objectives

Aim: To monitor the error rate JCI standards for Goal 1- Identify patients correctly of IPSG Chapter (International Patient Safety Goals) in multi speciality hospital.

Objective:

- To examine current standards of procedures and processes of the multi specialty hospital in Dwarka.
- To identify patients accurately and matching the patient's identity with the correct treatment or service is a critical factor of patient safety.
- To analyze the gaps and issues in all processes and procedures that corresponds JCI standards for Goal 1- Identify patients correctly of IPSG chapter (International Patient Safety Goals)
- To spread the awareness about the importance of patient identification among the staff working in the hospital.
- To interpret the results and assess compliance level of the hospital procedures and processes to JCI benchmark.

Chapter 4

Methodology

Methodology

The study was conducted in a multi specialty hospital in Dwarka. The total of 300 samples were collected and analyzed. The data of identification error that occurred in the hospital at previous quarter is taken from the hospital itself from the quality department and then analyzed.

Based on the above analysis an intervention will be designed.

The intervention will be complied in the form of a training package. Onsite training will be given to the entire healthcare delivery team.

1. General duty attendants
2. Patient transport services
3. Laboratory staff
4. Dieticians
5. Nursing staff
6. Treating physicians

The study took place in two phases:

1. Pre-Intervention Phase

2. Post- Intervention Phase

For the purpose of the study and data collection, inpatient wards, intensive care unit, non-invasive cardiology, radiology department were visited and observed over the span of one month time.

Study Design:

Observational Prospective Study

Sample Method:

Simple Random Sampling

Sample size:

300 out of which

150 samples were collected in Pre-Intervention Phase

150 samples were collected in Post-Intervention Phase

Data collection tools used:

- Checklist was developed and used to collect the data which was made according to the IPSG parameters.
- The checklist was used along with observational study.

Data analysis tool:

MS-Excel

Study Area:

Venkateshwar Hospital, Delhi

Sample Criteria:

A total of 300 samples were collected over a period of 60 days during the time of the time period of internship randomly.

At first, 150 samples were collected by random sampling method. Data was analysed and after that 150 samples were collected after the audit to check the increase in compliance rate and improvement in errors that was happening.

All samples were recorded from live medical record files of admitted IPD patients, checking the UHID bands of the admitted patients, checking UHID bands of the admitted patients going for diagnostics, procedures or surgeries in Venkateshwar Hospital, Dwarka. The samples belong to different departments Medical Record files were studies for all the samples to check the compliance of patient identification.

Inclusion Criteria:

All IPD patients.

Exclusion Criteria:

All departments could not be surveyed.

Limitations:

- This study was done in only one health care setup.
- All IPDs and ICUs were not covered.
- Study was conducted between 9:00A.M to 5:00P.M.

The study was undertaken for the 5 moments of patient identification which are:

- Before providing any treatment or procedure.
- Before administering blood or blood components.
- Before administering medications.
- Before taking samples and other specimens for clinical testing
- Before shifting patient from one unit to another.

The parameters studied were:

- Is ID band present to identify the patient?
- Is the patient identification details were correct and legible?
- Is the patient written details matching to the verbal details given by the patient (If patient is conscious)?
- Is 2 patient identifier's is used?
- Is appropriate band used to identify the patient (White for In-patient, Orange for vulnerable patients and Yellow for Allergic patients)?
- Is UHID is used to identify patients?

Chapter 5

Results

RESULTS

OBSERVATION AND FINDINGS

Mostly error occurs because the protocol is not followed properly and sometimes because of staff carelessness.

Pre-intervention:

150 samples were collected from various departments of the hospital and errors that was checked.

1. Before providing any treatment or procedure

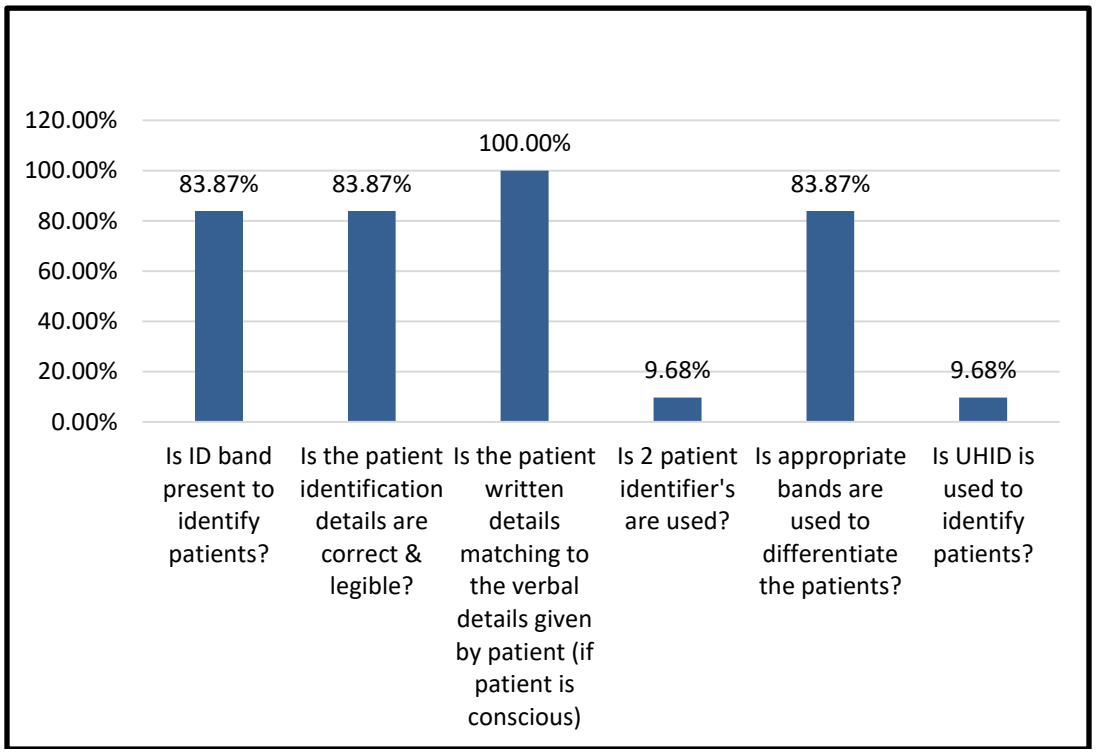

Figure 5.1: Pre-Intervention Before providing any treatment or procedure

In this case 1st parameter showed 20 errors, 2nd parameter showed 20 errors, 3rd parameter show 0 error, 4th parameter showed 45 errors, 5th parameter showed 20 errors, 6th parameter showed 45 errors. It was observed that in 84% of the patients ID bands were present and all bands were having correct and legible patient

identification details which means 16% of error occur due to absence of ID bands or having incorrect and illegible details.

The patient identification using two identifiers before the procedure as it leads to many errors. In this case, only 10% of the patients were identified using two identifiers.

The main concern was only 10% of the patients were identified by the UHID and rest 90% were occurring errors.

2. Before administering blood or blood components

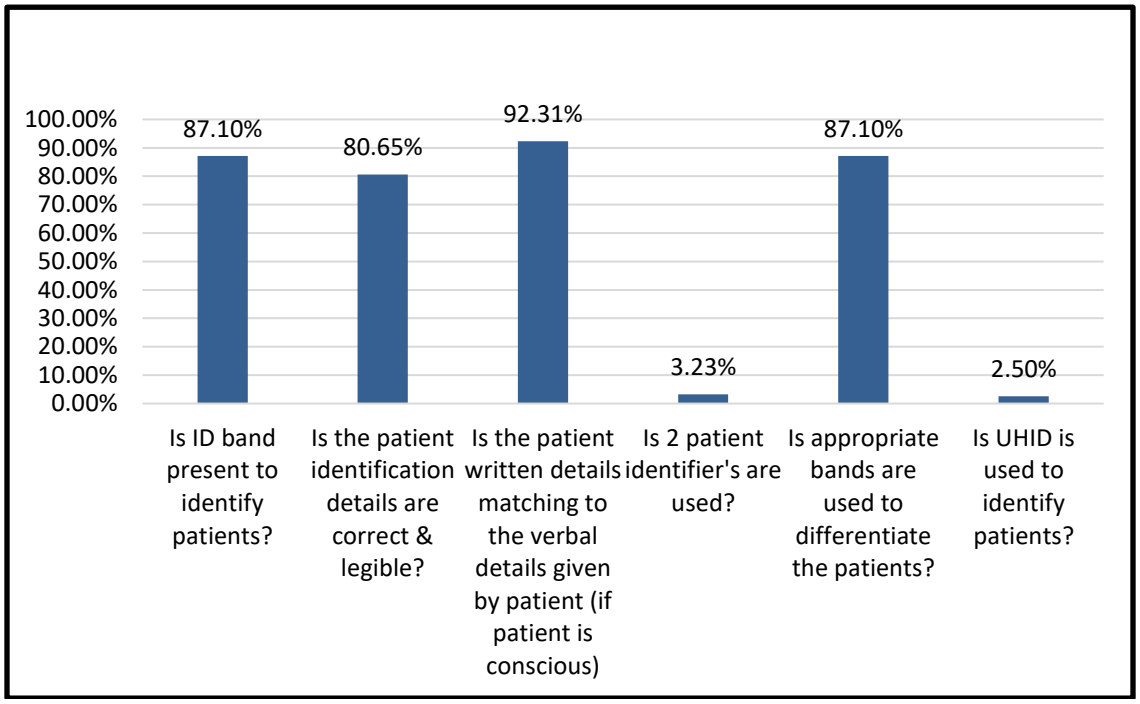

Figure 5.2: Pre-Intervention Before administering blood or blood components

In this case 1st parameter showed 10 errors, 2nd parameter showed 20 errors, 3rd parameter showed 10 errors, 4th parameter showed 50 errors, 5th parameter showed10 errors, 6th parameter showed 50 errors. It can be seen from the above graph, in 87% of the patients ID bands were present and only 81% of the patients ID bands were having correct and legible patient identification details rest was having errors.

In six percent of the cases, lD bands were present but details were not legible.

The major concern was the patient identification using two identifiers before the administration of blood or blood components which was only done in 3% of the total cases. The main concern was identifying patient with the UHID which is seen in only 3% cases and rest it needs to improve otherwise it leads to errors.

3. Before administering medications

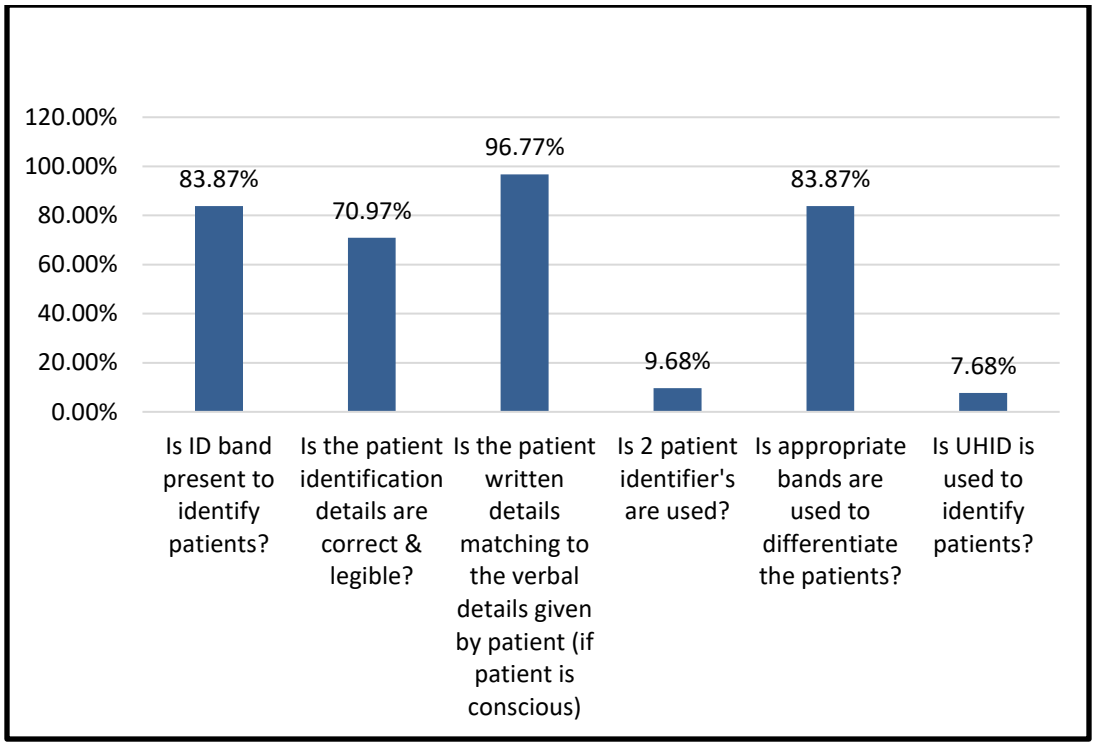

Figure 5.3: Pre-Intervention Before administering medications

In this 1st parameter showed 15 errors, 2nd parameter showed 20 errors, 3rd parameter showed 10 errors, 4th parameter showed 45 errors, 5th parameter showed 15 errors, 6th parameter showed 45 errors. As seen above, 84% of the patients, ID bands were present but only 71% of the patients ID bands were having correct and legible patient identification details.

In 11% of the cases, ID bands were present but details were not legible that leads to identification error.

The major concern was the patient identification using two identifiers before the administration medications which was only done in 10% of the total cases rest leads to error.

Also identifying patient with UHID in only 8% cases rest 92% which does not identify patients with UHID leads to patient identification error.

4. Before taking samples or other specimen for clinical testing

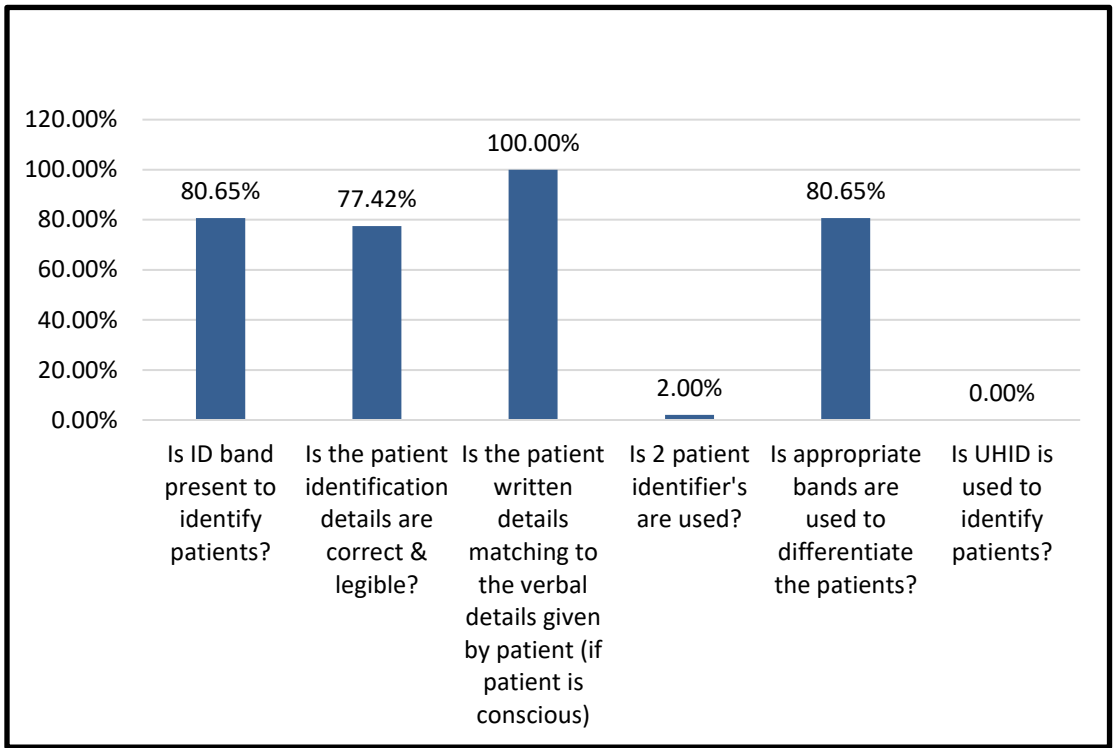

Figure 5.4: Pre-Intervention Before taking samples or other specimen for clinical testing

In this 1st parameter showed 15 errors, 2nd parameter showed 20 errors, 3rd parameter showed 0 errors, 4th parameter showed 50 errors, 5th parameter showed 15 errors, 6th parameter showed 50 errors. From the graph it was observed that in 81% of the patients ID bands were present but only in 77% of the cases, ID bands were having correct and legible patient identification details. In 4% of the cases, ID bands were present but details were not legible that leads to identification error.

The major concern was the patient identification using two identifiers before taking samples or other specimen for clinical testing. There was no case found in which patient were identified using two identifiers, which are Patient's Full name and UHID.

5. Before shifting from one unit to another

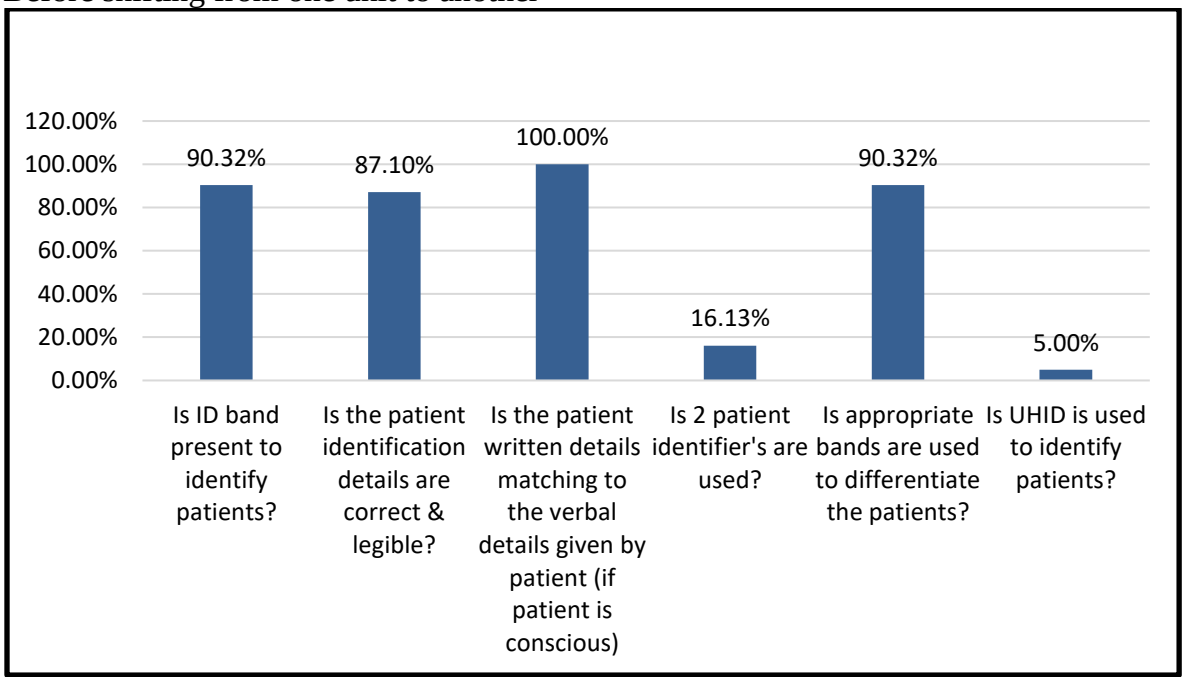

Figure 5.5: Pre-Intervention Before shifting from one unit to another

In this 1st parameter showed 15 errors, 2nd parameter showed 25 errors, 3rd parameter showed 0 errors, 4th parameter showed 50 errors, 5th parameter showed 10 errors, 6th parameter showed 50 errors. In this case it was observed that in 90% of the patients ID bands were present and only 87% of the patients, ID bands were having correct and legible patient identification details.

The major concern was the patient identification using two identifiers which was better in this case than the other cases. This compliance found in this case was 16% but there is still along may to go.

And still identification with UHID is not happening.

6. Overall Pre-Intervention Compliance for Patient Identification

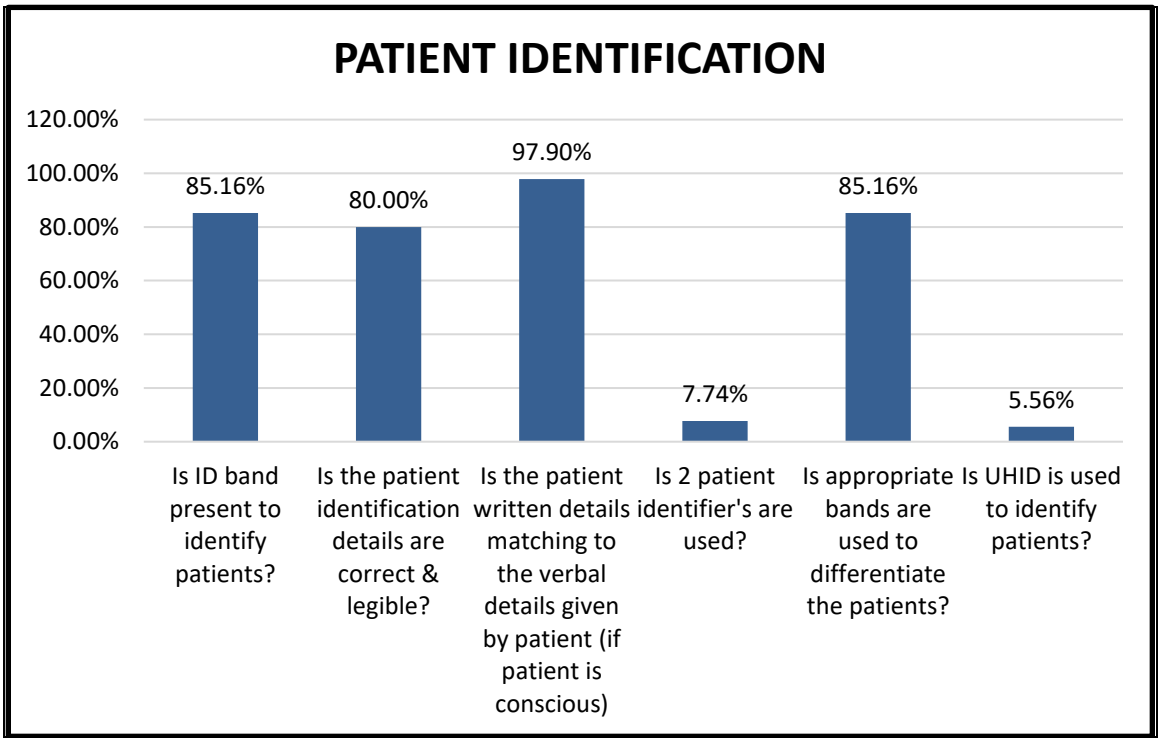

Figure 5.6: Overall Pre-Intervention Compliance for Patient Identification

Pre-Intervention studies revealed that out of the I50 cases studied:

In this 1st parameter showed 15 errors, 2nd parameter showed 20 errors, 3rd parameter showed 5 errors, 4th parameter showed 45 errors, 5th parameter showed 15 errors, 6th parameter showed 50 errors. 85% of the cases, there was ID band present. Out of this 85%, in 80% of the cases, patient identification details were found to be correct and legible. In 5% of the cases, ID bands were present but details were not legible that leads to identification error.

In only 8% of the cases, patients were identified using two identifiers.

In 15% of the cases, there was no ID band present to identity the patient.

<u>Other findings or observations</u>

- Patients were identified through Bed Numbers.
- In 10% of the cases, only one identifier, which is name, was used to identify the patient.

Intervention

As a part of intervention

- A meeting was conducted with all the nursing supervisors, deputy medical superintendent and head of quality department.
- An awareness drive was conducted to create and check the level of awareness of International Patient Safety Goals among the care providers and provide training to the staff or the same.
- A poster was made and posted at different locations in the hospitals to create awareness about patient identification.

Nurses training

- Training for nurses on how to properly use identification bands and there maintenance.
- Every day check by nurses while giving medicines.
- Id band to be tied in non-dominant hand to avoid fading because of water and to avoid skin irritation.
- To call out patient name and to identify him before any procedure.

Measures to prevent or overcome the error

- Confirm two patient identifiers, that should be approved by the organization, and it should be done in the beginning of each patient encounter.
- Apply patient identification techniques constantly, following the policy of the organization.
- One should avoid the mix ups when two patient's with similar name appears.

- Ask directly to the patient to state his or her name and other identifiers by asking, "What is your name? What is your date of birth?"
- Exhibit the patients name and other identifiers on wristbands, forms, computer displays, etc.
- Confirm a patient's identify fixing a label to specimen container.
- Label specimen box or holder with two patient identifiers in the presence of the patient.
- Exchange patient- specific identifiers during patient handoffs.
- Minimize interference and disturbance during patient identification.
- Speak up if you observe interruption from the patient identification policy.
- Provide resources for patients with language and hearing differences so they are equally able to participate in patient identification procedures.
- Educate patients about the significance of patient identification with every intervention.
- Actively participation of patients in patient identification process is needed.
- It's your responsibility that you should check the identity of patients and give the correct care to the correct patient (e.g., lab results, procedures and specimens).
- Never use patient's room number as an identifier, always use at least two identifiers like name and date of birth.
- Always use active communication whenever possible and ask the patient directly to state his or her full name and date of birth. (e.g., "Can you tell me your name and date of birth?" not "Mr. Smith I have your medicine for you.")
- Have the knowledge of identifying patients and always use the protocols who lack identification and for differentiating the identity of patients who have the same name.
- Always use non-verbal approaches for identifying confused and unconscious patients.
- One should educate patients on the significance and relevancy of correct patient identification in a positive way that also respects patient's privacy.
- Motivate patients and their families or attendants to be active participants in identification, to communicate concerns about safety and errors that could happen.

- If your organization uses automated systems for patient identification (e.g., bar coding, radiofrequency identification, electronic order entry, biometrics) to decrease the occurence for identification errors, know how to include them into the process of patient identification.

Post-Intervention:

150 samples were again collected and studied from various departments of the hospital to see the effectiveness of awareness drive and training of the staff

1. B

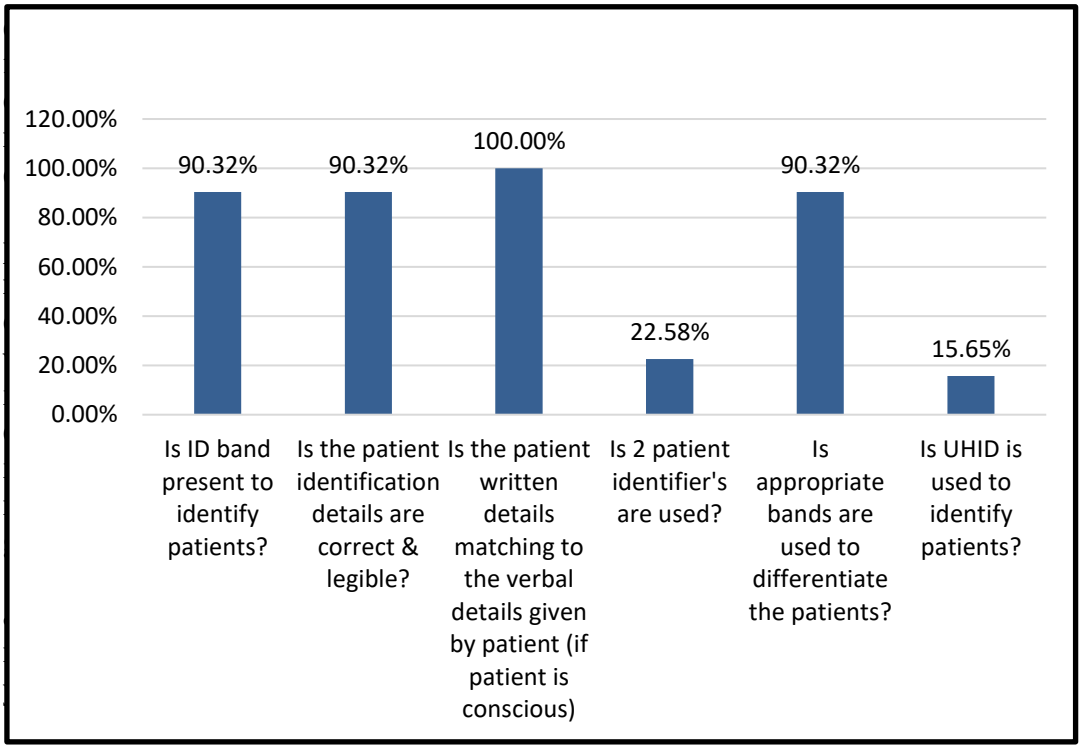

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Figure 5.7: Post-Intervention Before Providing any treatment or procedure

There was improvement seen in the patient identification using two identifiers of about 13% and identification with UHID of about 6%. The increase in the percentage of ID band present to identify patients and patient identification details are correct and legible was seen around 6% in both the parameters.

2. Before administering blood or blood components

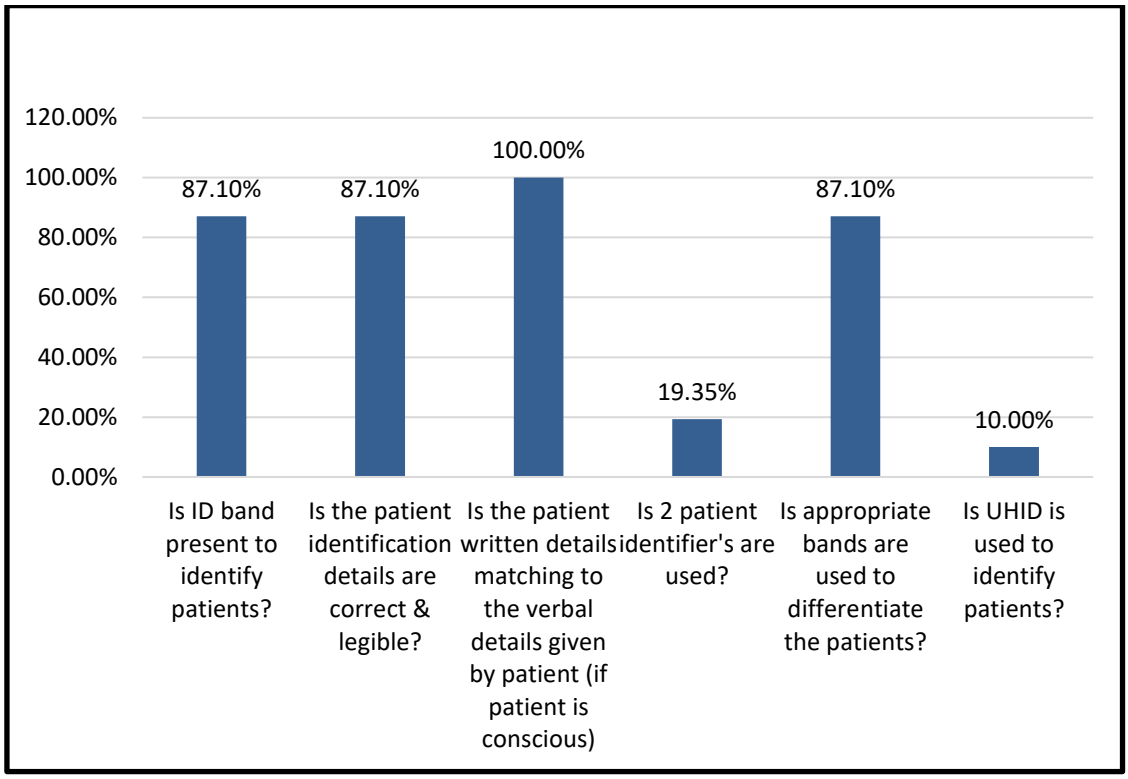

Figure 5.8: Post-Intervention Before administering blood or blood components

The post intervention study showed a significant increase in the compliance of identifying patients using two identifiers and identification with UHID with 16% and 6% respectively. The improvement in patient identification details are correct and legible increased by 6% and improvement in patient written details matching to the verbal details given by patient showed increase of 8%.

3. Before administering medications

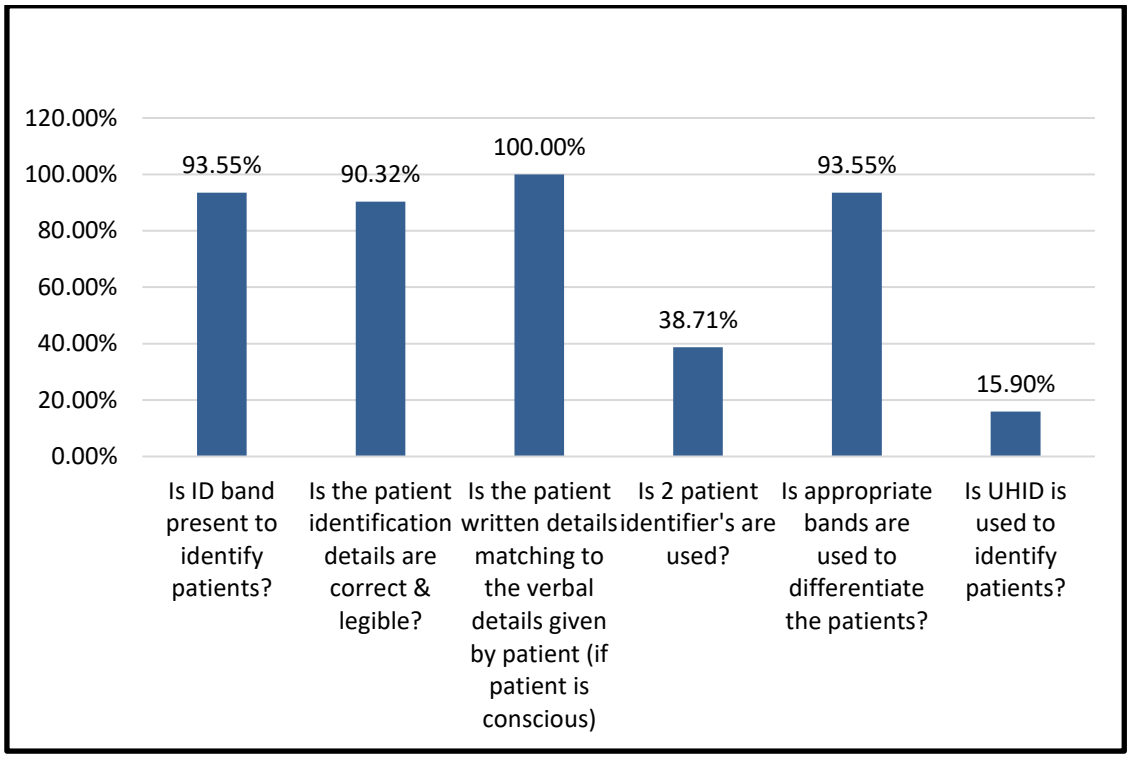

Figure 5.9: Post-Intervention Before administering medications

The nurses were seen following the protocol of patient identification which led to increase in compliance rate. There was nice improvement showed in two patient identifiers and identification with UHID increased by 28% and 8% respectively. The identification with ID band and patient identification details are correct and legible showed improvement by 10% and 19%.

4. Before taking samples or other specimen for clinical testing

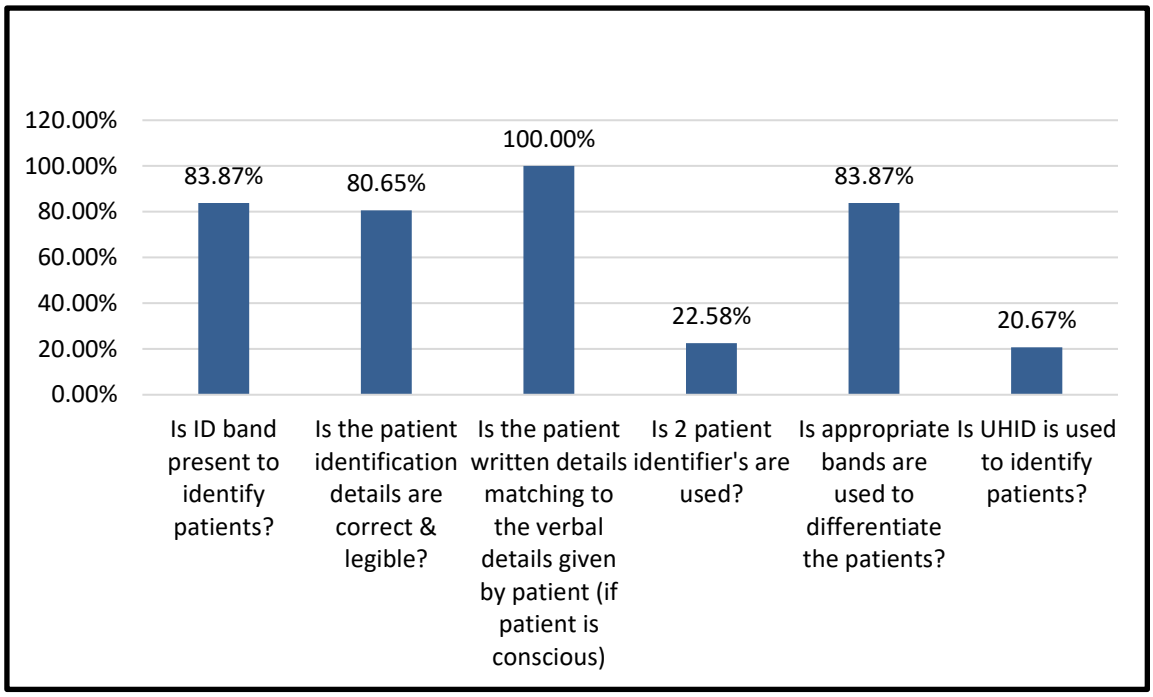

Figure 5.10: Post-Intervention Before taking samples or other specimens for clinical testing

There was an increase in compliance rate of the identification of patient using two identifiers and identifying with UHID. The post intervention study showed a significant increase in the compliance of identifying patients using two identifiers and identification with UHID with 20% and 21% respectively.

5. Before shifting from one unit to other

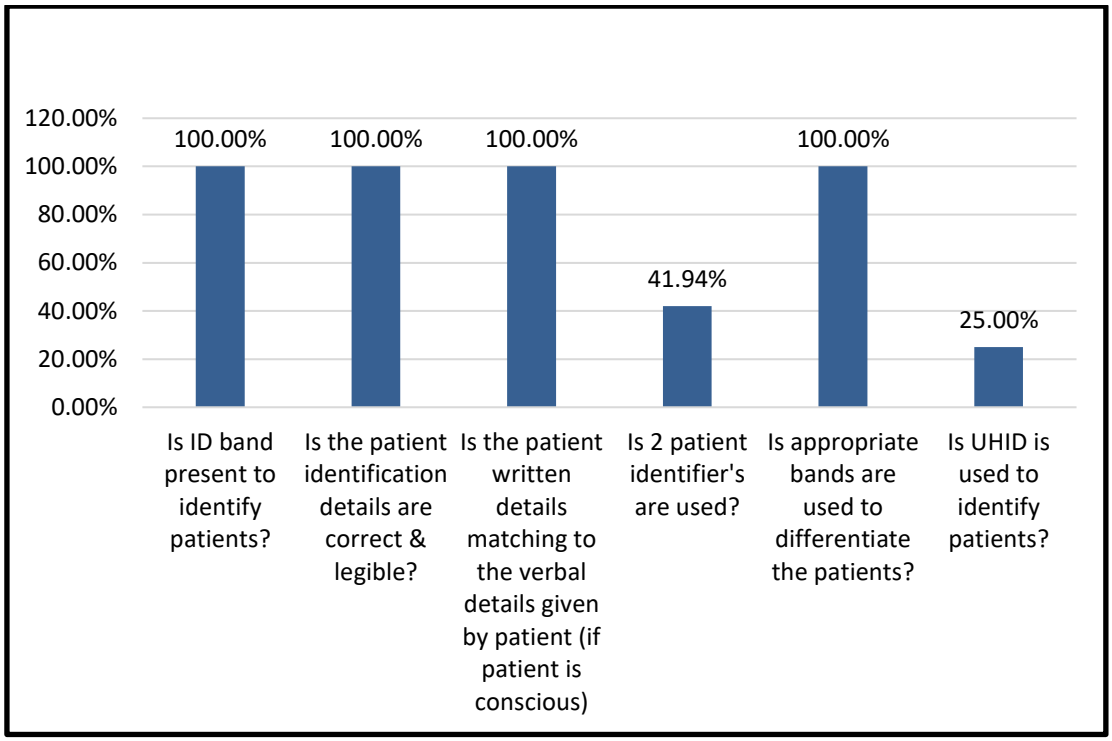

Figure 5.11: Post-Intervention Before Shifting from one unit to another

There was an increase in the compliance rate of the presence of ID bands which reached to 100%.

All the bands were having correct and legible patient identification details. In 42% of the cases, patient identification was done using two identifiers which is an improvement. Also improvement was seen in patient identification with UHID.

6. Overall Post-Intervention compliance for Patient Identification

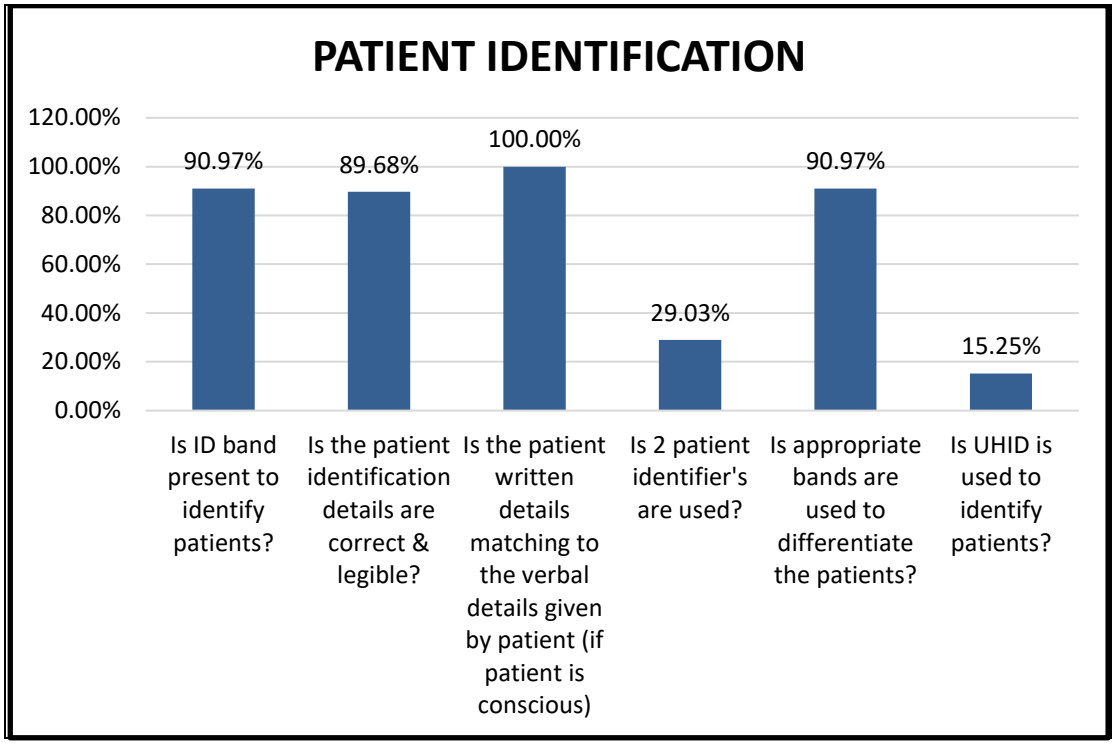

Figure 5.12: Overall Post-Intervention compliance for Patient Identification

The post intervention study showed a significant increase in the compliance of identifying patients using two identifiers and identification with UHID with 21% and 9% respectively. The improvement in patient identification details are correct and legible increased by 10% and improvement in patient written details matching to the verbal details given by patient showed increase of 2%.

7. Comparison of Overall Compliances of Pre-Intervention and Post-Intervention

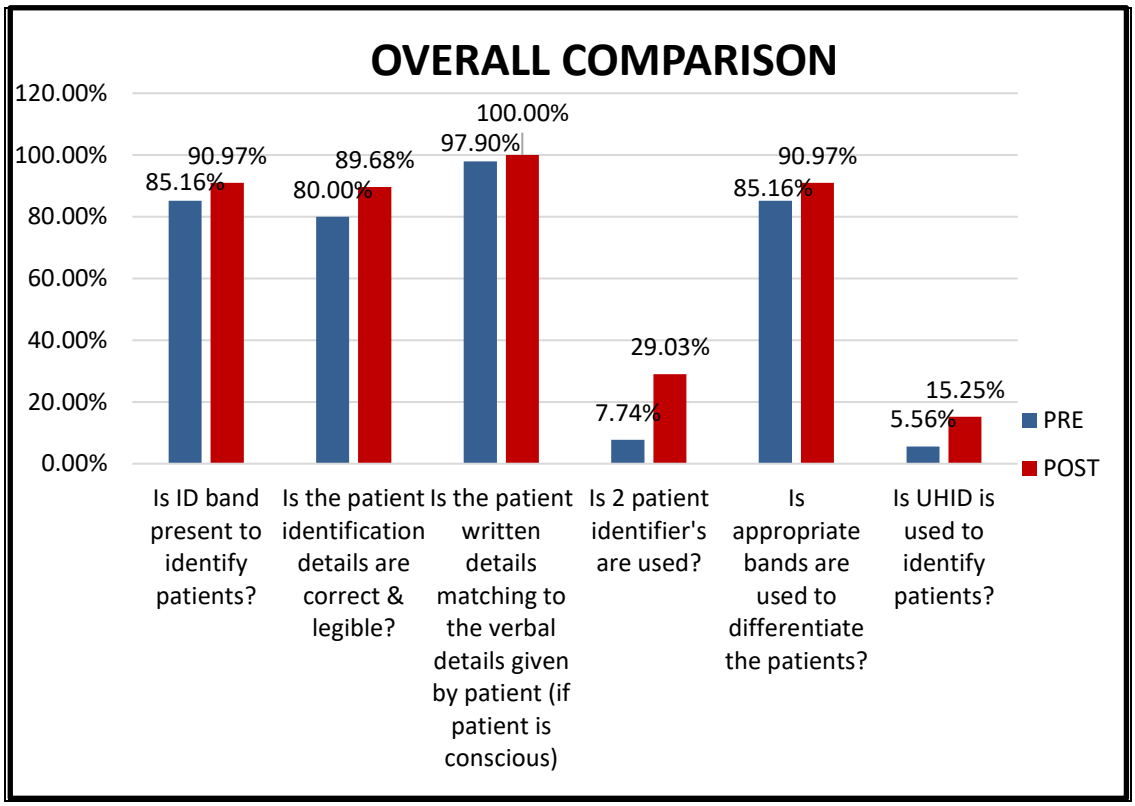

Figure 5.13: Comparison of Overall Compliances of Pre-Intervention and Post-Intervention Studies

There was improvement in the compliance rate of all parameters.

Presence of identification bands increased by six percent from 85% to 9l%.

Legibility of patient ID band also improved from 80% to 89%.

The major concern which was patient identification using two identifiers also improved from 8% to 29% but there is a long way to go.

Patient Identification with UHID increases from 5.56% to 15.25%.

Chapter 6

Discussion

DISCUSSION

The process of identifying patients correctly is a very important practice and an important IPSG goal. This investigation provides a circumstance for differentiation and process improvement. The increasing load of work in the hospital makes it significance to attain well organized process for identifying patients correctly and providing quality care to them.

This study was done to check if the patients were identified at different moments of patient identification using 6 parameters.

This study was conducted in two phases pre-intervention and post-intervention.

The compliance rates for both the phases were calculated and plotted on a graph.

As a part of intervention, a meeting, an awareness drive was conducted and training was given to the nursing staff.

When the comparison was made between pre-intervention study and post-intervention study, it was observed that:

- There was an improvement in the overall compliance of patient identification.
- The compliance for presence of ID bands increased from 84% to 94% and compliance for details being correct and legible also increased from 78% to 92%.
- The compliance for patients being identified also increased from 6% to 31%.

Various recommendations were given to improve the process further which proved to be helpful through other studies like use of the posters on every door, cubicles and right training given to hospital staff, patients and their relatives.

<u>Reasons for absence of ID bands</u>

The following reasons were found to be responsible for the absence of ID bands: Patient: It was found that the patient removes the ID band himself/ herself.

Staff: The nurses were also found responsible for the absence of ID bands. The nurses were not bothered to check the ID bands.

Reason for no patient identification using two identifiers

While doing study, it was found that patients were not being identified using two identifiers at 6 moments of patient identification. The reasons were studied and has been presented in the form of Fish-Bone diagram.

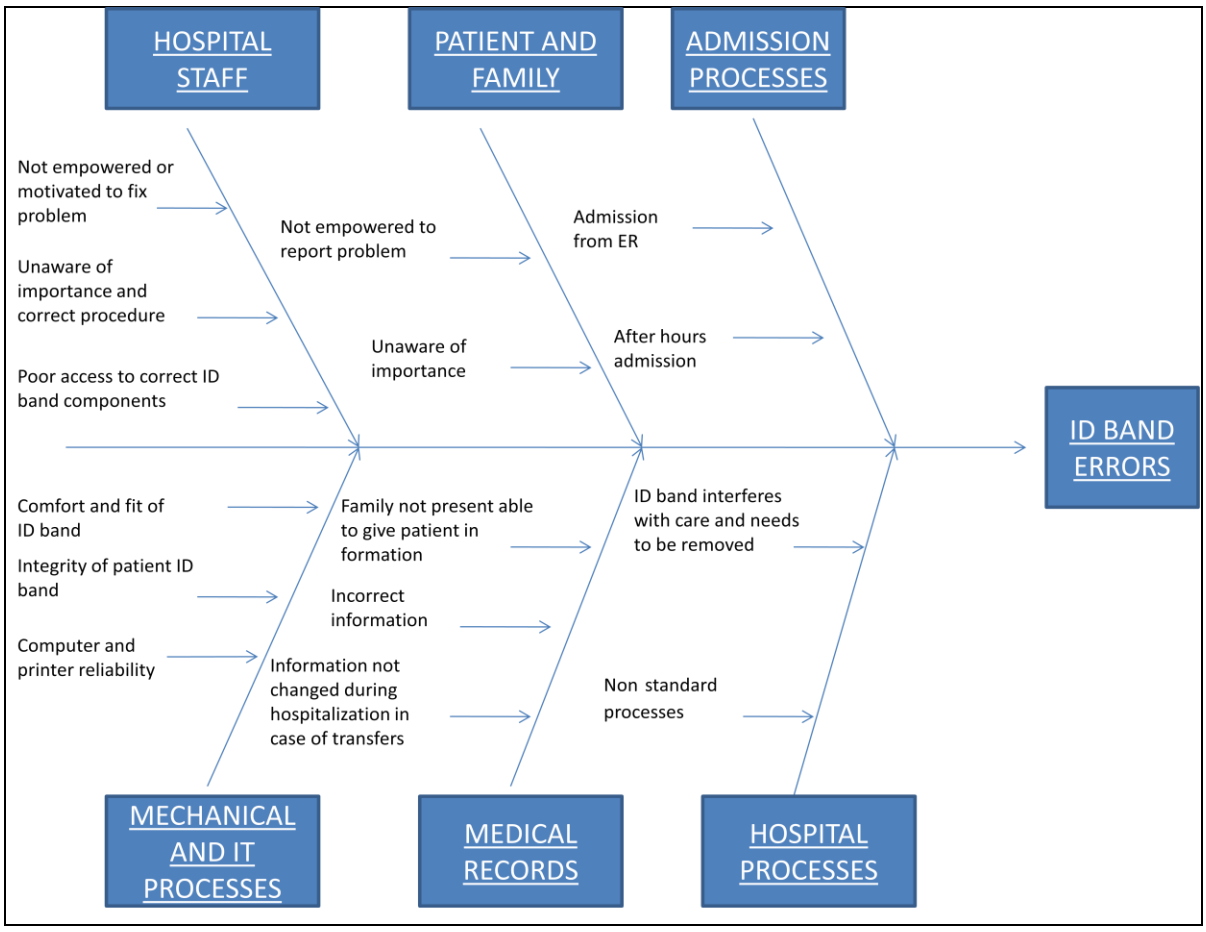

Figure 6.1: Fish bone diagram

The main reasons were:

The nurses were not motivated enough to check the ID band every time.

The nurse-patient ratio was also the reason. The nurses were handling 5-6 patients at a time which made them reluctant to adopt the practice.

Care of the patients. According to the nurses, they have been taking care of the patients for a long time which made them familiar with the patient. This was also the reason which did not make them the need to check the ID bands.

Chapter 7

Conclusion

CONCLUSION

This study was conducted to check the compliance rate of IPSG goal 1 Patient identification. After the regular training of nurses and informal interviews there is improvement in the safety standard. After educating patients and their attendants there is improvement in the safety standard. It was a successful study which helped to improve the process thus improving the safety of patients and quality of care given to them. Right and special identification of patients is important for patient care and safety, resource concerns, addressing cost and enhancing data sharing and interoperability. UPIs, algorithms and biometric identification are some tools and techniques of patient identification that have been executed globally, resulting in no single solution with a 100% match rate each system faces their own opportunities and challenges. The variety of health data, velocity and volume is expected to continue to grow, as is demand for new data streams to be incorporated into the EHR. Relatively exchange and share data, electronic records, and achieve interoperability is increasing. The ability to amalgamate new data into the medical record without special, distinct identifiers will become troublesome. To play a role in increasing existing and appearing approaches to patient identification opportunities exist for researchers and clinicians.

Chapter 8

Recommendations

RECOMMENDATIONS

Recommendations 1: There is overall compliance of goal 1 of IPSG and it could be seen and analyzed from the study i.e. by doing few changes in some of the elements we could achieve 100% compliance with patient identification that variations could be training and motivation of the clinical staffs and they should understand the policies and procedures for goal 1 IPSG.

Recommendations 2: Policy Changes: Stop the line Rules.

Stop the process, test, receive medication or blood product, or undergo a procedure if the patient is not wearing an identification band.

Recommendations 3: Resizable identification bands: So that the patient from every age group can wear that.

Recommendations 4: Involve patients in patient identification: Ask patients to recall their name and UHID before undergoing any treatment.

Recommendations 5: Regular audits should be done to ensure patient safety.

Recommendations 6: Certain innovative activities like campaigns should be carried out to create awareness about International Patient Safety Goals.

Chapter 9

Supplementary

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Appendix

Sno.	Audit	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:
1.	Is ID band present to identify patient?							
2.	Is the patient identification details are correct and legible?							
3.	Is the patient written details matching to the verbal details given by patient (if patient is conscious)?							
4.	Is 2 patient identifier's is used?							
5.	Is appropriate bands are used to differentiate the patients							
6.	Is UHID used to identify the patients?							

Figure 10.1: Before providing any treatment or procedure

Sno.	Audit	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:
1.	Is ID band present to identify patient?							
2.	Is the patient identification details are correct and legible?							
3.	Is the patient written details matching to the verbal details given by patient (if patient is conscious)?							
4.	Is 2 patient identifier's is used?							
5.	Is appropriate bands are used to differentiate the patients							
6.	Is UHID used to identify the patients?							

Figure 10.2: Before administering blood or blood components

Sno.	Audit	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:
1.	Is ID band present to identify patient?							
2.	Is the patient identification details are correct and legible?							
3.	Is the patient written details matching to the verbal details given by patient (if patient is conscious)?							
4.	Is 2 patient identifier's is used?							
5.	Is appropriate bands are used to differentiate the patients							
6.	Is UHID used to identify the patients?							

Figure 10.3: Before administering medications

Sno.	Audit	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:
1.	Is ID band present to identify patient?							
2.	Is the patient identification details are correct and legible?							
3.	Is the patient written details matching to the verbal details given by patient (if patient is conscious)?							
4.	Is 2 patient identifier's is used?							
5.	Is appropriate bands are used to differentiate the patients							
6.	Is UHID used to identify the patients?							

Figure 10.4: Before taking samples or other specimen for clinical testing

Sno.	Audit	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:	UHID:
1.	Is ID band present to identify patient?							
2.	Is the patient identification details are correct and legible?							
3.	Is the patient written details matching to the verbal details given by patient (if patient is conscious)?							
4.	Is 2 patient identifier's is used?							
5.	Is appropriate bands are used to differentiate the patients							
6.	Is UHID used to identify the patients?							

Figure 10.5: Before shifting from one unit to another