

**INITIATION OF TRACER METHODOLOGY AS
CONTINUOUS QUALITY IMPROVEMENT TOOL IN SUPER
SPECIALTY HOSPITAL**

**Internship Training
at
Medanta-The Medicity, Gurgaon**

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**Under the guidance of
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**MBA Hospital & Health Management
2013–15**


**Institute of Health Management Research
Jaipur
2015**

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr Suruchi Maheshwari** student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone dissertation/internship training at Medanta The Medicity, Gurgaon from 16th February to 30th April.

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

The dissertation/internship is in fulfillment of the course requirements.

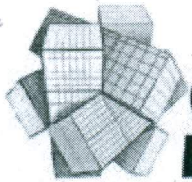
I wish her all success in all his future endeavors.



Col. (Dr.) Ashok Kaushik
Dean, Academics and Student Affairs
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Date 04.05.15

INTERNSHIP COMPLETION LETTER

This is to certify that Dr. Suruchi Maheshwari, student of MBA (Major in Hospital & Healthcare Management), Batch 2013 -15 Indian Institute of Health Management Research, Jaipur has successfully completed her internship with us.

- Project Title - Initiation of Tracer Methodology as a Continuous Quality Improvement tool
- Project Duration - 16th Feb 2015 to 31st March 2015

During the period of her internship programme with us she was found to be punctual, hardworking and inquisitive.

For GLOBAL HEALTH PVT LTD

Monica

MONICA MUDGAL

SENIOR VICE PRESIDENT & HEAD - HUMAN RESOURCES

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled A Study on “Tracer Methodology as a Continuous Quality Improvement Tool” in a Super Specialty Hospital, Gurgaon and submitted by **Dr Suruchi Maheshwari** Enrollment No. 1510 under the supervision of Prof Suresh Joshi for award of MBA Hospital and Health Management of the university carried out during the period from 16th February to 30th April embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.


Signature

Acknowledgement

I, Dr Suruchi Maheshwari, a student of PGDHM 18 batch at IIHMR Jaipur, would like to sincerely express my heartfelt gratitude to:

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1. Acronyms/Abbreviations

- BP: Blood Pressure
- CABG: Coronary Artery Bypass Graft
- Cath Lab: Catheterization Laboratory
- DSA Lab: Digital Subtraction Angiography Lab
- ERCP: Endoscopic Retrograde Cholangio Pancreatography
- EUS: Endoscopic Ultra Sound
- GHPL : Global Health Care Private Limited
- Hb : Haemoglobin
- IPD : In- Patient Department
- JCI: Joint Commission International
- MLC : Medico-Legal Cases
- OPD: Out-Patient Department
- OT : Operation Theatre
- POCU: Pre Operative Cardiac Unit
- PTCA: Per Cutaneous Transluminal Coronary Angioplasty
- RH +ve : Rhesus Factor Positive
- RH -ve : Rhesus Factor Negative
- RBC : Red Blood Cell
- SNTD: Signature Name Date Time
- UG Floor: Upper Ground Floor
- WB: Whole Blood
- RFA: Request For Admission
- TPA: Third Party Administration
- ACR: Admission Control Room

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5.1 Introduction

There are few industries in modern society as complex and unique as health care. By definition, the provision of health care exists to help prevent, treat, and manage illness and to help promote and preserve the well-being of patients, residents, and clients. And as anyone who works within health care can attest, serving the healthcare needs of patients, clients, and residents presents unique challenges and concerns. Health care has to deal with the challenges that Mother Nature provides, such as the constant mutation and emergence of illness, and the challenges human nature provides, such as public health problems and unavoidable human error. As a result, the system of health care delivery can be complex with unplanned or unexpected variation, human error, systems breakdowns, and so on, all of which can result in adverse outcomes and unplanned (and unwelcome) medical errors. This does not mean, however, that health care systems cannot and have not been able to streamline their systems and processes to effectively reduce risks to the safety and well-being of patients, clients, or residents.

Health care is also notable for its openness to studying and adopting any viable improvement methodologies that will help it meet its improvement goals, regardless of whether the concept is developed inside or outside the health care industry. It is not unusual to see a health care organization employing improvement methodologies that have emerged in other career fields, such as the automobile, engineering, or aerospace industries. Six Sigma, lean thinking, failure mode and effects analysis, and root cause analysis are all methodologies that emerged in other fields, but have been moderately and even widely adopted by health care with positive results. And there are examples of other methodologies that may have originally emerged as methodologies used in specific scientific research that have also been adopted by the broader health care field, and are evolving to fit the unique needs and challenges of the field itself. One such concept is *tracer methodology*.

Tracer methodology is a flexible, straightforward management tool that allows an organization to assess and closely examine its systems and process of care delivery. This is accomplished by following the path of those systems in question, by observing the process as it is demonstrated by staff, or by observing the care experiences of those individuals who receive care, treatment, or services from the organization. It was employed by The Joint Commission as an assessment methodology when the accrediting body launched its revamped accreditation process in 2004. Since its inception by The Joint Commission, the use of tracer methodology has evolved further within the health care field. Before 2004, organizations were eager for knowledge about the new accreditation process and, in particular, how tracer methodology would be used by surveyors during their next on-site survey.

Tracer methodology has its roots in science. Tracing is used by scientific researchers as a way to study a scientific process; they often “trace” a chemical, biochemical, or other naturally occurring scientific process by placing another substance (typically a chemical substance) in that process in order to study the process’s sequence. Tracing has led to some significant breakthroughs in many areas of scientific research since its use emerged as a methodology in the early twentieth century. The use of tracer methodology in health care as currently used by The Joint Commission is based on this scientific approach, yet it uses patients, clients, or residents as its “substance” to look at systems and processes of care, treatment, and services in an

organization rather than studying a scientific, naturally occurring process as is done in such fields as chemistry, biology, and biochemistry.

The Joint Commission adopted the use of tracer methodology in its new accreditation process; it was unveiled in pilot testing in 2002 and 2003 and then was launched formally as part of the new survey process in 2004. As organizations began to undergo the new process, surveyors' use of tracer methodology began to anecdotally emerge as one of the most significant (and welcome) changes in the accreditation process. Organizations noted that tracer methodology focused on actively observing and following systems and processes of care, treatment, and services and how they related to the care recipient's experience in the organization. This practice was a big change from what often happened prior to 2004 when surveyors spent most of their time at an organization studying formal policies and procedures and other documentation related to the structure of the organization. At that time, surveyors made a determination of an organization's potential to provide quality care based on these policies and procedures.

There are two types of tracers: *individual tracers* and *system tracers*. During individual tracers, surveyors trace the care of patients by observing and talking to staff in the geographic area in which the individual received care. This may be the emergency room, radiology, surgery, recovery room, a long term care facility, a patient's home, or any other areas. Surveyors interact with staff members to discuss standards issues and how their performance directly relates to patient care. In this way, tracer methodology actively engages physicians, nurses, and other clinical and nonclinical staff in the survey process. This methodology allows all members of an organization to see directly how standards compliance issues can translate into potential vulnerabilities for patient quality and safety. *System tracers* focus on important processes or functions that span an organization. Like individual tracers, system tracers may include visits to departments or areas directly involved in the process that is being discussed. JCI's current system tracers are medication management, infection control, and use of data. These tracers provide a forum for discussion of important topics related to the safety and quality of care at the organization level. Surveyors use system tracers to examine organization structure and how it impacts care and to understand how various health care systems are integrated with one another. For example, a medication management system tracer will provide information about how medications are selected, stored, prescribed, and dispensed; the pharmacy's role in verification and patient education; medication errors; and so on. Use of a data tracer will show how information is collected, safeguarded, and provided to caregivers when needed, and how data are used in many different decision and education processes.

Tracer methodology is designed to evaluate the integration of the following related factors:

- Standards of care
- Organizational processes
- Care and services provided
- Staff understanding of systems and procedures.

Tracer methodology looks for good practices as well as opportunities for improvement. Conducting a successful tracer examines process design and looks for risk points, opportunities for improvement, and processes that support safe practice. In other words, tracers show that a process has been designed well enough to produce its intended effect: safe, high-quality care. Beyond the on-site survey, tracer methodology can play an important role in helping

organizations meet their improvement goals. Tracer methodology is part of a continuous systems improvement process. It is not just the current idea that is in vogue, but a dynamic process that should become part of the culture of any accredited organization. It is also a long-term commitment that requires investment in training, development of knowledge, visibility, and recognition from leaders. Finally, tracer methodology is a continuous systems readiness activity that can take several years to reach maturity in an organization.

5.2 Literature review

There could not be found study similar topic in which whole hospital compliance check is done, but individual standards studies could be found. These are stated as follows-

- In a *BMJ* editorial in March 2000, Leape and Berwick called handwritten medical notes a 'dinosaur long overdue for extinction.'¹ Six and a half years on, the dinosaur is alive and well. In 2002, a report in this *Journal* revealed that 15% of case histories were illegible.² In 2005, three surgeons audited the legibility of 40 randomly selected operative notes from an orthopedic ward in a large British hospital.³ Two nurses, two physiotherapists and two medical house officers were asked to rate the legibility of the notes as 'excellent', 'good', 'fair', or 'poor'. Only 24% were rated 'excellent' or 'good', and 37% were deemed 'poor'.⁶
- In clinical records many items are handwritten and difficult to read. We examined clinical histories in a representative sample of case notes from a Spanish general hospital. Two independent observers assigned legibility scores, and a third adjudicated in case of disagreement. Defects of legibility such that the whole was unclear were present in 18 (15%) of 117 reports, and were particularly frequent in records from surgical departments. Through poor handwriting, much information in medical records is inaccessible to auditors, to researchers, and to other clinicians involved in the patient's care. If clinicians cannot be persuaded to write legibly, the solution must be an accelerated switch to computer-based systems⁷.
- Reviews of observational studies in acute care hospitals show that fall rates range from 1.3 to 8.9 falls/1,000 patient days and that higher rates occur in units that focus on eldercare, neurology and rehabilitation. When this initial protocol was developed in 2008, best reported performance in fall rates was in the range of 2.5-3.5 falls/1,000 patient days, with injury rates as low as 0.1/1000 patient days.⁸
- Falls are the commonest patient safety incident in NHS hospitals - accounting for around 35% of reported incidents. They are a problem for individual patients, their families and for staff who care for them and are an area increasingly focused on in quality initiatives and in the new outcomes framework for the NHS. The NW falls audit is an excellent example of bottom up initiative from a region driven by practitioners and institutions rather than external targets. Not only will it be a fantastic template for other regions wishing to tackle this problem but the 'no blame' approach and commitment to continuous learning is welcome.⁹
- Noncompliance with hand hygiene recommendations is widely recognized as the most important modifiable cause of hospital-acquired infections. Indeed, in their 2008 Patient Safety Goals The Joint Commission requires that, as the primary means of preventing hospital-acquired infections, hospitals comply with World Health Organization and/or Centers for Disease Control and Prevention hand hygiene guidelines. Unfortunately, rates of compliance with hand hygiene recommendations are unacceptably low in most hospitals. Results from most studies suggest that overall hand hygiene compliance rates are below 50%.¹⁰

- Hospitals collected baseline data on compliance and causes from February through July 2009. Baseline compliance across all participating hospitals and units was 47.5%. Initial data from the eight hospitals revealed 41 different causes of hand hygiene noncompliance.¹¹

5.3 Rationale

Organization got JCI accreditation on August 2013, so the level of compliance with the hospital standards and policies were highest at that time. Since then organization leadership thinks that level of compliance have gone down. JCI accreditation license validity is for 3 years and so by end of 2016 organization is expecting the reaccreditation audit by JCI. Thus for these reasons governance and leadership decided to start this program of tracer methodology which mimics the way JCI does the audits in entire hospital for the following reasons-

- As a tool for continuous quality improvement
- For finding gaps in the standards and policies
- To view hospital process from the lens of patients.
- To rectify hospital's policies in accordance to JCI guidelines and standards

5.4 Research Question

Are departments/institutions abiding with the norms and standards laid down?

5.5 Objectives

- To understand norms and standards laid by hospital for various departments/institutions.
- To assess the non compliances of various departments/institutions for these norms/standards.
- To make suggestions to overcome these non compliances.

5.6 Research methodology

Research is the systemized efforts to gain new knowledge. A research methodology defines the purpose of the research, how it proceeds, how to measure progress and what constitute success with respect to the objective determined for carrying out the research study. The appropriate research design formulated is detailed below. A scientifically carried out research project has a defined frame work for data collection. This frame work constitutes the research design. It determines the data collection method, sampling method the field works and so on.

5.6.1 Research design-

Qualitative descriptive study

5.6.2 Study area-

Medanta The Medicity, Gurgaon

5.6.3 Study population-

All institutes of hospital

5.6.4 Study period-

3 months

5.6.5 Sampling technique-

Purposive (non sampling technique)

5.6.6 Sampling criteria-

- **Inclusive-**
 - All institutes of hospital which have given orientation of the tracer methodology from the hospital leadership.
- **Exclusive-**
 - All institutes of hospital which have not given orientation of the tracer methodology from hospital leadership.
 - All non clinical department of hospital.
 - All policies and standards which not directly related to patient.

5.6.7 Sample size-

Total number of tracer audits done by investigators in all institutes of hospital.

5.7 Data collection

Technique- A team of 36 investigators is formed for conducting tracer audits in 9 institutes of hospital, i.e 4 in each institute. This four member team consists of four cadres of staff, Doctor, nurse, administrator and Medical Administrator. They are provided with a guiding checklist tool for their audits and they are supposed to conduct **face to face interview** with the associated stakeholders and also observe the functioning of the process and would submit their report in word format with their finding in it. Therefore following methods were used-

- Personal interview- unstructured questionnaire (Annex-1)
- Observation – observation checklist (Annex-2)

Formal classroom training is given to all investigators in which the purpose of study and way to conduct the tracer has been taught. Following was the broad prospect one need to follow in order to conduct the tracer audit.

Process to follow in tracer methodology audits is as follows-

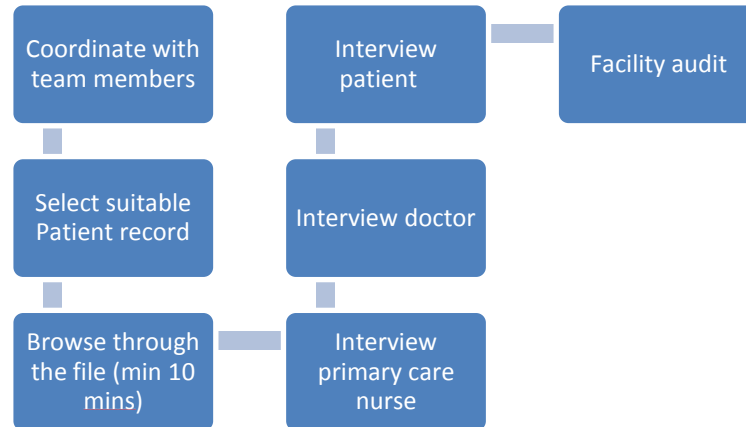


Fig.10

5.8 Data analysis

The exception report sent by all institutional team would be coded into JCI standards and further analysis is done after coding each finding into JCI standard. (Annex-3)
Analysis is done by graphs and charts.

5.9 Findings

1. Total no of tracer audits done across all institutes of hospital- 35
2. Total non compliance among following standards.

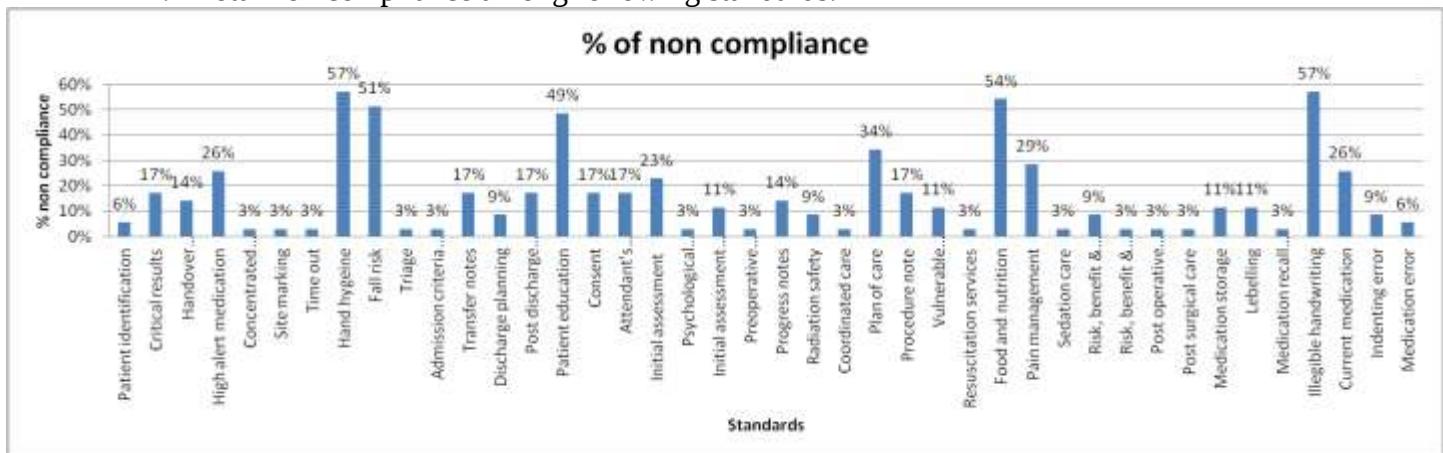


Fig.11

From fig.2 we can observe that in 35 tracer audits, illegible handwriting is most non compliant (51%) standard followed by hand hygiene and food and nutrition (46%) and then fall risk prevention (34%). Overall this fig shows the non compliance of standards of JCI which were reported by investigators in their exception report.

3. Ranking of all institutes on the basis of compliances to the standards.



Fig.12

Fig .3 shows the ranking of various institutes of hospital on the basis of compliances found. According to this graph Gastroenterology and Gastro intestinal surgery institutes ranking first among all institutes and neurosciences institute ranking last with 76% of its total compliance.

4. Standards scoring according to JCI

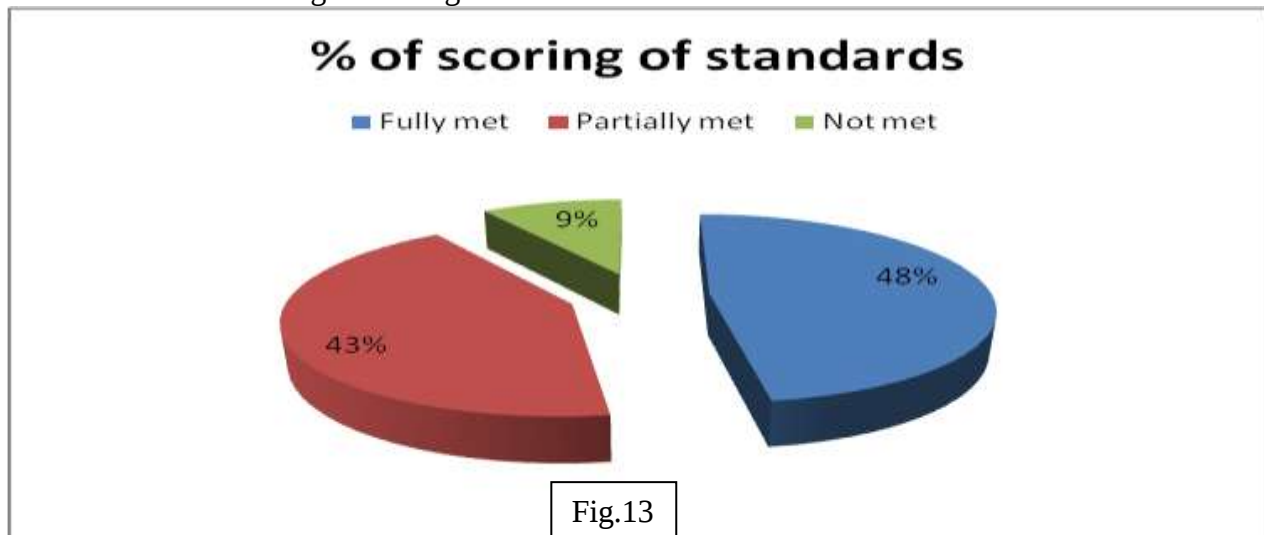


Fig.13

JCI have set scoring pattern to decide a particular standard is fully met , partially met or not met. This criteria is as follows-

- Fully Met standard- if compliance is found to be 90% and above.(i.e if there was 10 audit of a particular standard, then only 1 time it came out to be non compliant)
- Partially met standard- if compliance is found in between 50%-89%.
- Not met standard- if compliance is less than 49%.

Therefore it was found that only 7 % standards were NOT MET.

5. Not met standards.

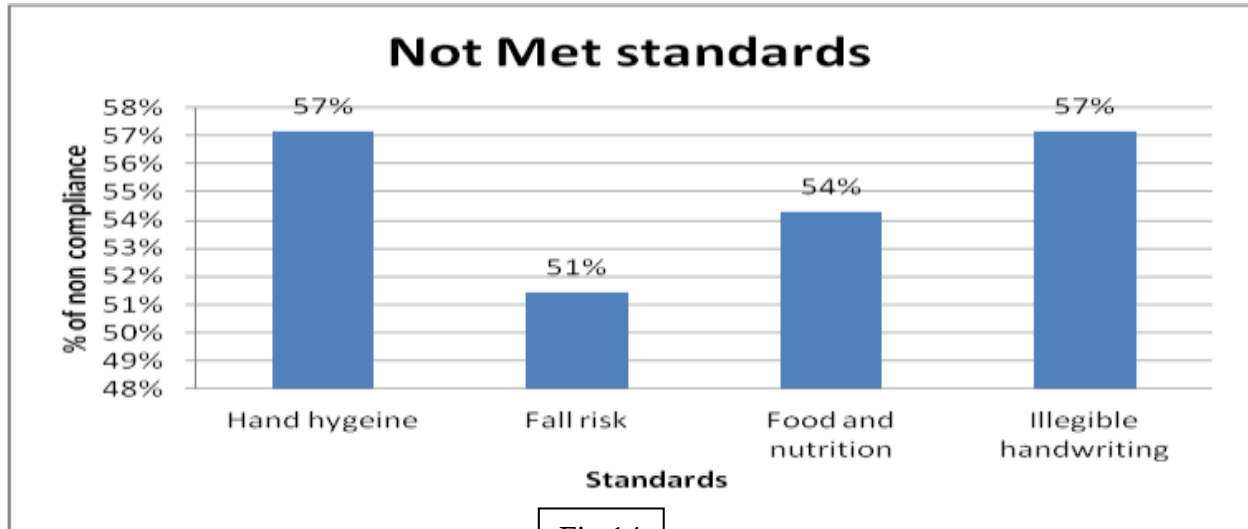


Fig.14

Fig .14 shows that hand hygiene and illegible handwriting have highest non compliance of 57% in all the 35 tracers. All these four standards are above 50% which according to JCI comes under not met standards.

6. Partially met standards.

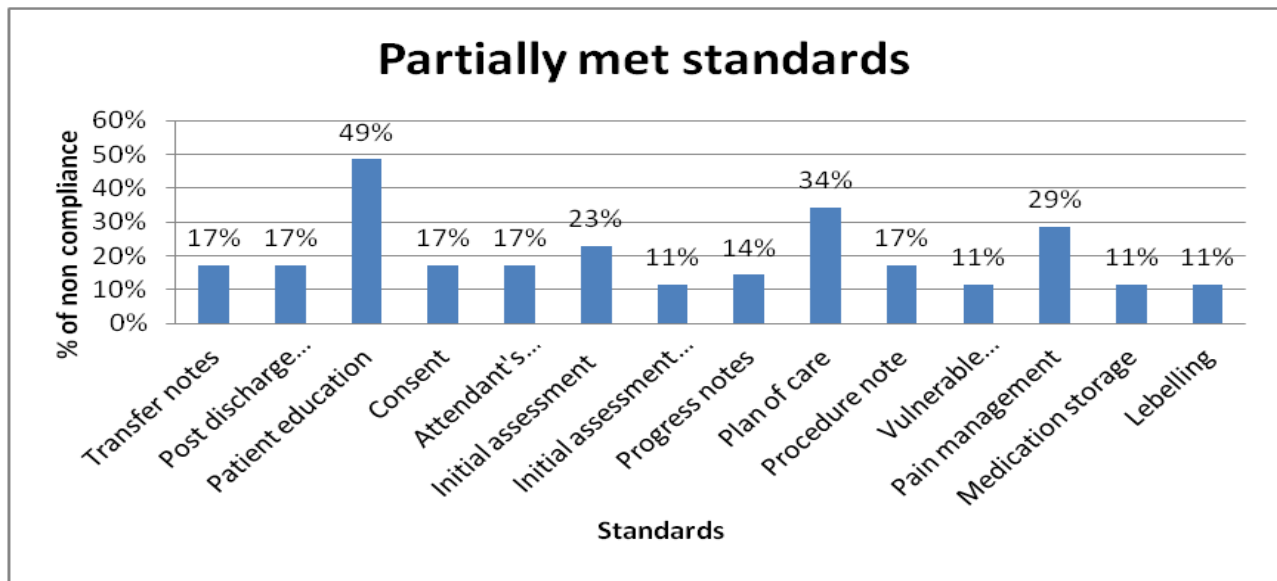


Fig.15

Fig .15 shows all the standards which have non compliance between 11% -49% which according to JCI comes in partially met standards. Among partially met standard patient education come out to be highest i.e 49%, followed by plan of care standard i.e 34%

7. Not met standards- institute wise non compliance

Institute/standard	Illegible handwriting	Hand hygiene	Fall risk	Food and nutrition	High alert medication	Pain management	Plan of care
Liver transplant	60%	60%	40%	60%	40%	20%	20%
CTVS	75%	75%	75%	25%	0%	75%	50%
Gastro & GI	60%	60%	60%	60%	40%	40%	40%
Uro, Nephro, Dialysis	100%	0%	0%	100%	100%	0%	0%
Ortho	67%	33%	67%	0%	0%	33%	0%
Neurosciences	20%	60%	80%	40%	60%	60%	60%
Onco	60%	60%	40%	60%	20%	20%	20%
Multi	50%	50%	50%	50%	50%	20%	40%
Emergency & critical care	50%	50%	0%	75%	67%	33%	33%

Table.10

- Table 10 shows non compliance of illegible handwriting across different institutes. Among them urology, nephrology and dialysis institute have highest non compliance because it has only one audit and this was one of finding in it.
- Hand hygiene non compliance across the institutes. Among which CTVS institute have maximum non compliance of 75% followed by emergency and critical care 67%.
- Non compliance of high alert medication across all institutes of hospital. Among them Urology, Nephrology & Dialysis institute comes out to be 100 %, which is due to only one audit is done there.
- Non compliance of fall risk prevention across all institutes of hospital. Among which Neurosciences come out to be highest non compliant institute with 80% of non compliance and Emergency and critical care have lowest i.e 0%.
- Pain management non compliance across all institutes of hospital. Among which CTVS institute have highest non compliance of 75% , followed by Neurosciences with 60%.
- Plan of care non compliance in all institutes of hospital. Among which Neurosciences have highest non compliance of 60% followed by CTVS 50%.

8. Errors / issues in major non compliance standards

- Types of errors in Illegible handwriting

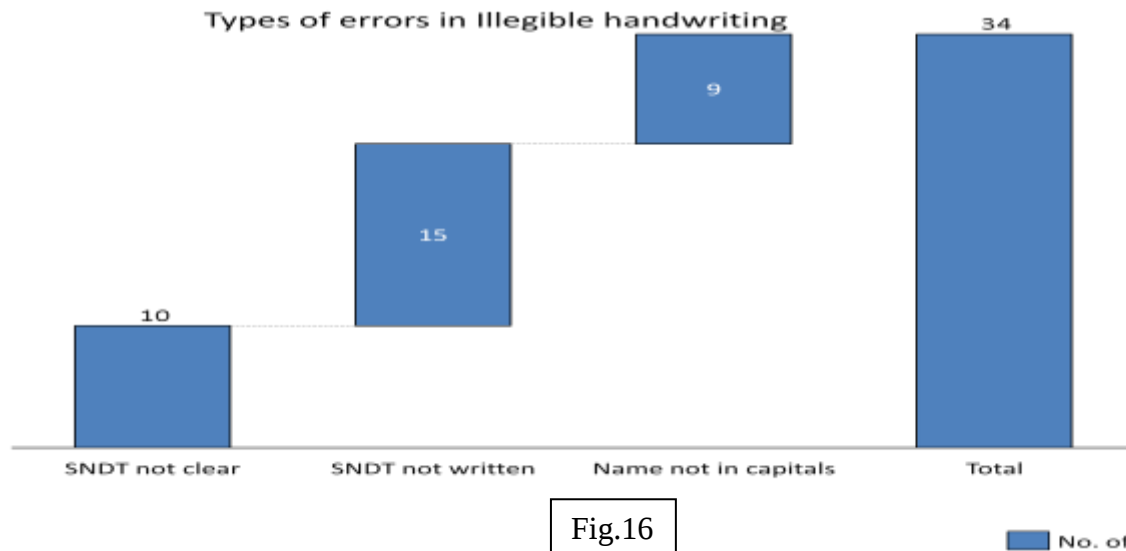


Fig .16 shows all types of errors occurred in illegible handwriting. In which SNTD (signature name date time) were not written was highest error found. Followed by SNTD not clearly written and then names not in capitals. Total errors occurred come out to be 34 in all audits of illegible handwriting.

- Hand washing non compliance among different carders of hospital

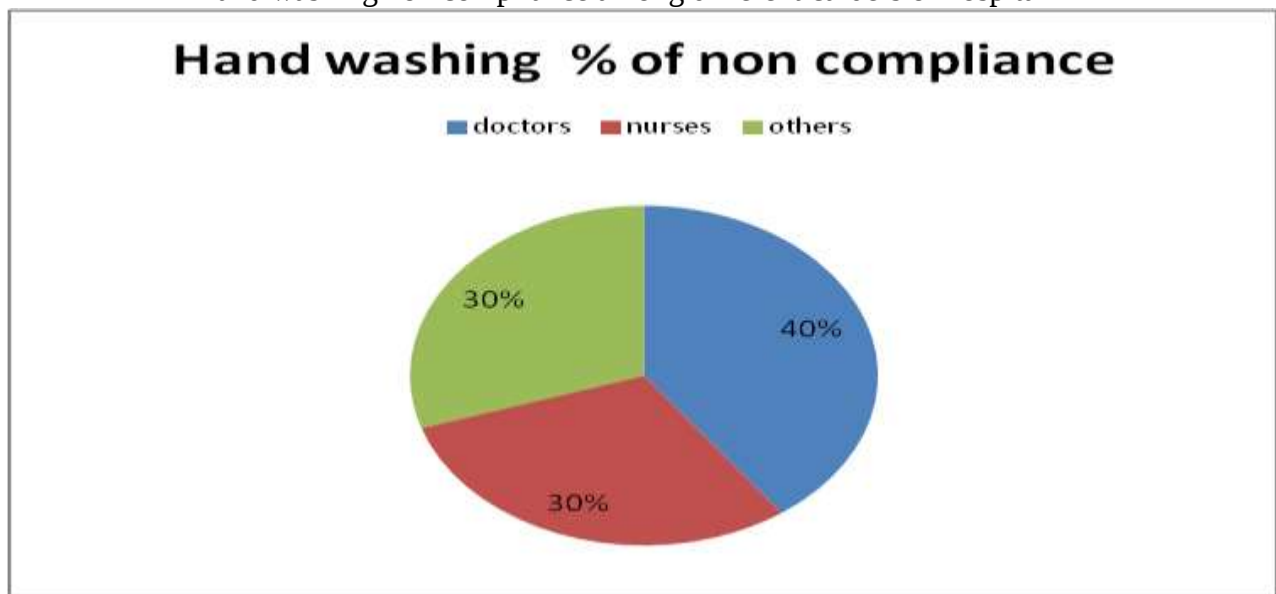


Fig.17

Fig 17 shows non compliances of 6 steps of hand hygiene among different carders of hospital, from which we can find out that doctors have maximum non compliances, which may be due to lack of training of this carder. “Others” include housekeeping staff, technicians etc.

- Moments of hand hygiene non compliance

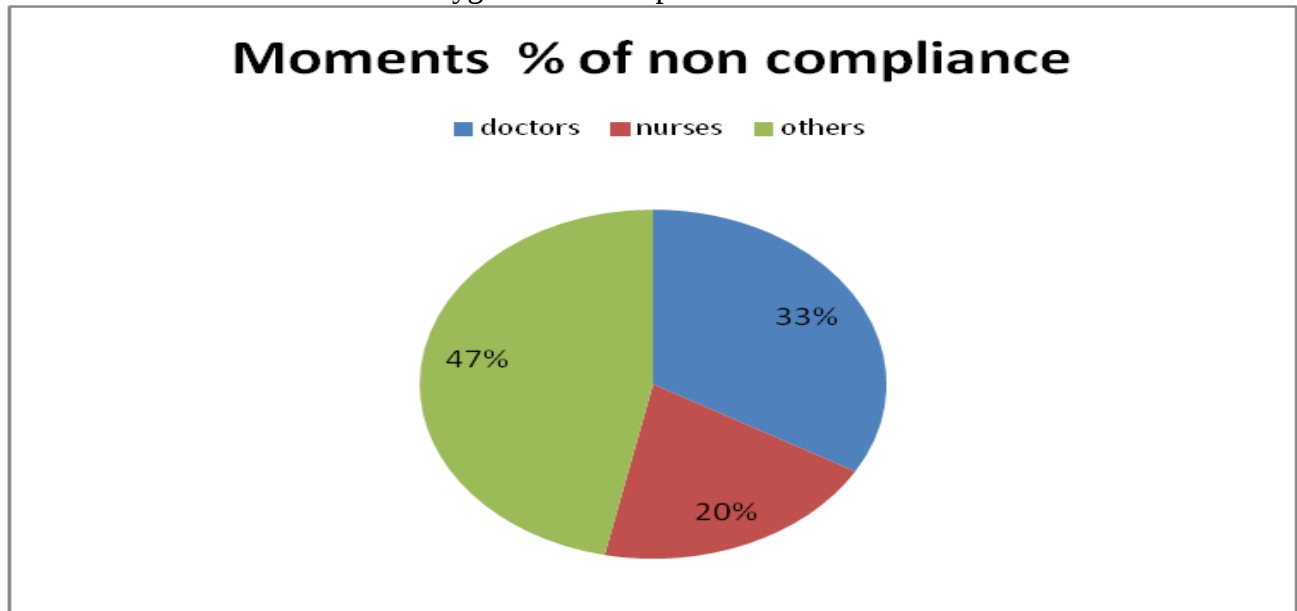


Fig.18

Fig .18 shows non compliance to 5 moments of hand hygiene among different carders of hospital. Among them others have maximum non compliance and nurses have minimum.

- Errors related to HAM

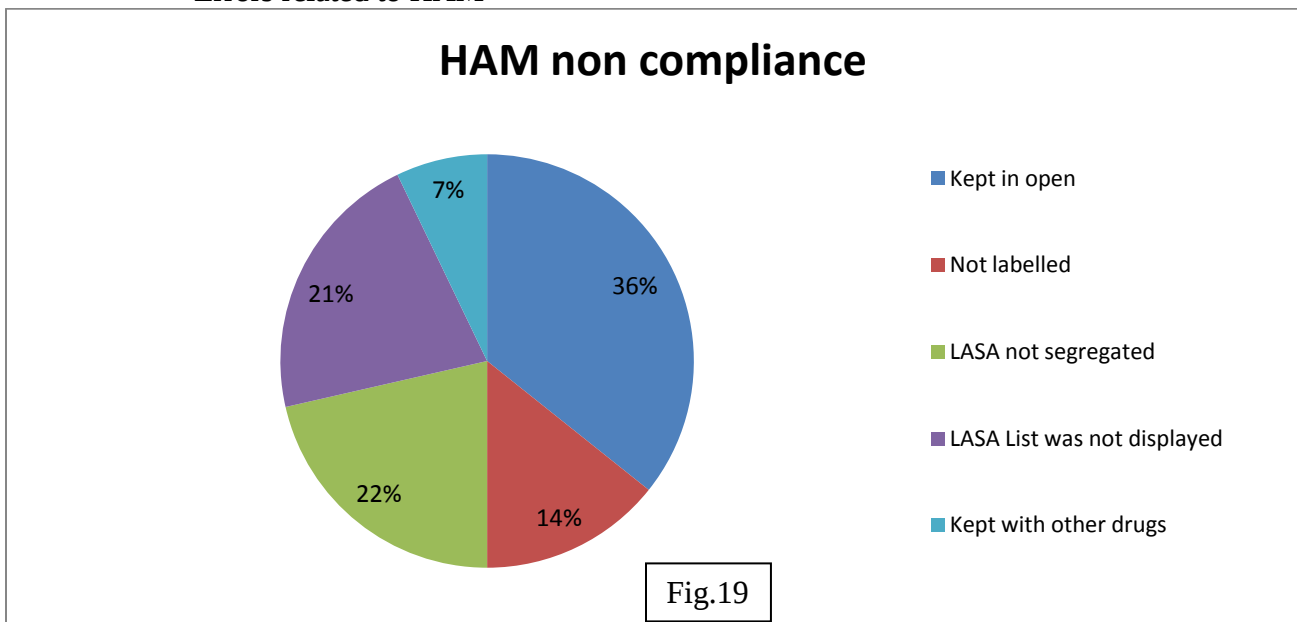


Fig.19

Fig .19 shows types of error in HAM standard, according to this pie chart LASA drugs were not segregated which is against the policy of the hospital and high alert drugs were kept with other drugs were found only in 7 % of audits.

- Errors in fall risk prevention

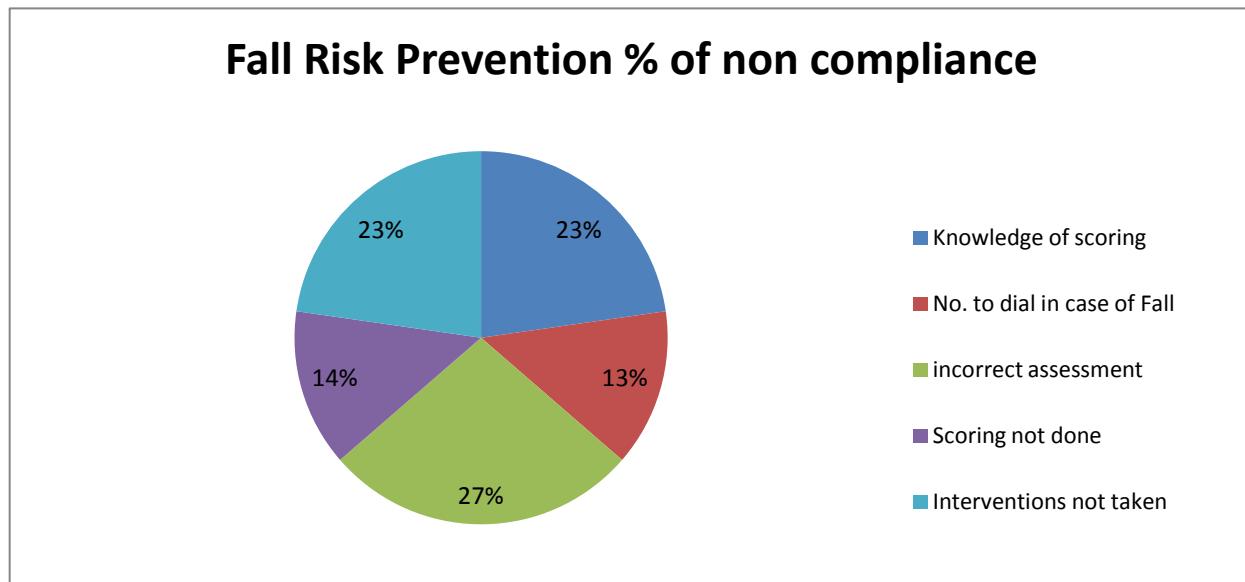


Fig.20

Fig .20 shows types of error in fall risk prevention standard. All different errors occurred in almost same frequency, among them incorrect assessment of fall risk is the highest i.e 27%.

- Errors in pain management

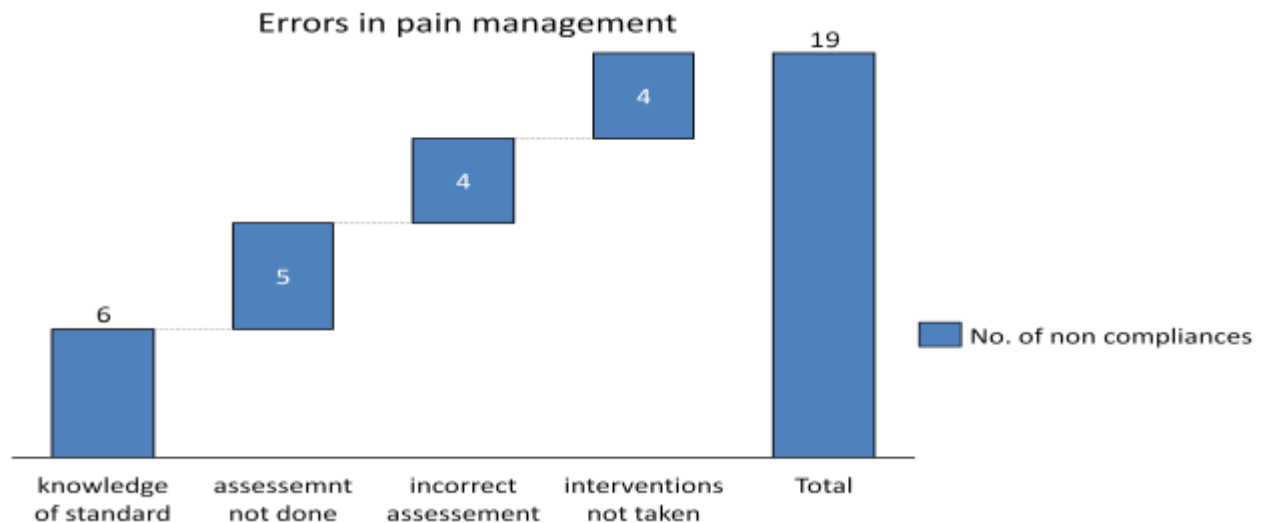


Fig.21

Fig .21 shows types of errors in pain management standard along with their number of occurrences in the audits. It came out to be that knowledge of standard is most common error which occurred 6 times in all audits followed by pain assessment not done by responsible staff come out 5 times and lastly incorrect assessment and after pain assessment many didn't did proper intervention to cure pain occurred 4 times. All together pain management prevention standard errors were 19 in numbers in all 35 audits.

- Errors in plan of care

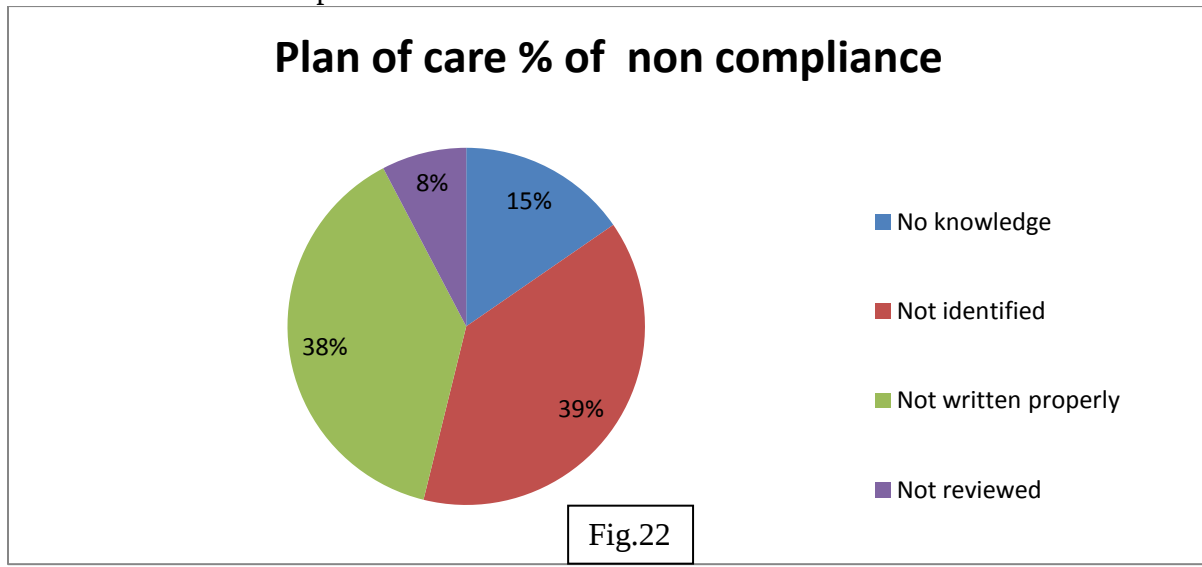


Fig .22 shows types of errors in plan of care standards along with their percentage of occurrence. Among which plan of care not identified came out to be highest followed by plan of care not written properly with 38%.

6. Discussion

Since calculating all standards compliance is significant or they have come by chance is beyond the scope of this study which is the reason only “NOT MET” standards (which have come less than 49% compliance) are considered to test whether these standards compliance rates have come by chance or in reality.

Illegible handwriting-

From the literature review, illegible handwriting non compliance among different hospitals comes out to be 15%. In this study it is 57%. This finding has $p=0.001$ (95% confidence interval) which means that it is highly significant and illegibility is really a major issue for the hospital to handle. This may be also due to heavy patient load and doctors cannot give much time on one patient and so they just write the minimum requirements.

Fall risk prevention-

In this study percentage of non compliance of fall risk prevention standard is 51% and from studies tells us that approximately 35% of non compliance is usually prevalent in different hospital setup. This finding has $p=0.024$ (95% confidence interval) which again means it is highly significant and is beyond the set benchmark. So further interventions need to be taken to reduce this as it has hazardous effect on patient safety.

Hand hygiene-

Non compliance of hand hygiene in this study is 57% and from literature review hand hygiene non compliance is usually 52.5% in different studies conducted. This finding has $p= 0.2909$ (95% confidence interval) which means that this standard non compliance is similar with other hospitals studies but still focus is needed to improve upon it as hand hygiene ultimately leads to overall cost burden to the organization as well as patient by increasing hospital acquired infections.

High alert medications-

Non compliance with this standard is 9% and several similar studies showed it to be 5%. To which $p= 0.4247$ (95% confidence interval) which means non compliance is similar to other studies done in the past.

Following types of biases may have occurred in the study-

Interviewer bias-

Interviewer bias refers to a systematic difference between how information is solicited, recorded, or interpreted. Interviewer bias is more likely when they are auditing their working institute. They may hide or modify certain findings in order to make their department more compliant. They may also modify findings because they would only be held responsible for non compliance, so in order there can be lack of integrity in some interviewer. Interviewer bias can be minimized or eliminated if the interviewer is made to do audit of institute in which they are not working.

Reporting bias-

Reporting bias refers to the fact that interviewer may be unwilling to write unfavorable results, believing that such findings may negatively reflect on their personal abilities or on the efficacy of their product. Thus, positive results are more likely to be submitted for publication than negative results.

Selection bias-

Selection bias can exist when procedures for subject or case selection or factors that influence a subject's participation affect the study's outcome. Because it is not possible to study an entire population for whom an individual patient tracer is intended, the most appropriate study sample is one that most closely reflects the characteristics of the population of interest. The choice of study case will ultimately affect the generalizability and usefulness of findings.

Response bias-

Response bias may exist when missing data are present nonrandomly for study standards (eg, as some institute have given profound findings, but some institutes did not) who were otherwise still included in the analysis. The results may be biased by the subject group for whom more complete data are available. Their compliances, thus, may be disproportionately represented.

7. Limitation of study

- If a team gives more number of finding then it would come out to be most non compliant institute.
- If a team gives less findings then there would be ambiguity in the exact status of compliance of that particular institute because it may be possible that institute have less number of non compliance but at the same time there is also a possibility that investigators are not keen enough to observe non compliances

8. Recommendations and conclusions

1. Some standards like critical results and plan of care needs policy correction.
2. Hand hygiene, fall risk prevention and pain management standards have non compliance due to lack of knowledge of staff which requires training of staff regarding these standards.
3. For illegible handwriting of doctors, they are advised to write in capitals the name of drugs in Medication Administration Record.
4. For SMDT illegibility, doctors need training to write them.
5. Fall risk prevention interventions should be available with the staff.
6. High alert medications should be stored according to policies of the hospital.

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10. Annexures

10.1 Unstructured interview guidelines.

Introduction

Firstly we will introduce ourselves to the interviewee and state our purpose. Brief the interviewee about the research project. We would take his informed consent, which is as stated below:

“The information you give us is completely confidential, and we will not associate your name with anything you say in the interview. We would like to tape the interview so that we can make sure to capture the thoughts, opinions, and ideas we hear from you. No names will be attached to the discussion and the tapes will be destroyed as soon as they are transcribed. You may refuse to answer any question or withdraw from the study at anytime.”

Note- An incorrect answer should always receive comments or recommendation for follow up.

Tracer team member-

Staff interviewed-

Unit/ location-

Topics- Verbal orders, Handover communication, interdisciplinary communication, Patient & Family education, Discharge planning

S no.	Tracer questions	Correct answer	Incorrect answer	Follow up needed	Comments / Notes
1	In what situation verbal orders are permitted? What do you do in case of verbal orders?				
2	How does the hand over of the patient done? How do you ensure complete hand over is done or not?				
3	How continuity and coordination of care process is done if patient is shifted from one dept to other? Who all are responsible for it?				
4	What education is provided before admitting the patient to hospital? On what parameters patients are assessed before educating them? Who all responsible for providing the education? How do you ensure that education is given to patient?				
5	What education is provided to the patient before starting any procedure? How do you ensure education is given to patient?				
6	How communication is carried out in case of International patients or patient with language barrier?				
7	What patient education do you provide in relation to discharge planning? How do you communicate this to the patient & family?				
8	Discharge summaries are in english. What do you do if a patient does not understand english? how do you ensure that such patients are able to execute their discharge instructions at home?				

Any other pertinent findings/ Remarks-

10.2 Checklist for Emergency Department

PATIENT TRACER AUDIT (emergency)			
Patient details			
Name:			
UHID:			
Sex:			
Bed no:			
Date of admission:			
Diagnosis:			
SR. NO	PRIORITY FOCUS AREA	OBSERVATION	REMARKS
DOCTOR'S			
1	How do you screen the patients in emergency? What is the evidend based triage criteria that you use?		
2	what is the procedure of transferring the patient to other facility and also show documentation for the same?		
3	What is the process for admitting emergency patient to inpatient department?		
4	Is staff trained to use triage criteria? How do you know?		
5	what is the time limit for patient needing admission who are boarded in ED? What do you do when patient overstay?		
6	How do classify as a patient as MLC? what do you do in MLC cases?		
7	What is the policy for brought dead patients?		
NURSE'S			
1	How do you identify patients?		
2	Show me how to use defib?		
3	How do you identify vulnerable patients?		
4	How do you manage brought dead patients?		
5	How pain scoring of patient is done? How often do you reassess the pain after giving pain medications?		
6	What is the holding period for patient in emergency?		
7	What happens if patient falls?		
8	what are sentinel events and how are they reported here?		
9	what is the process if near miss event occurs?		
10	what kind of care do you provide to ventilated patient?		
11	In which all condition you will follow verbal order ?		
12	What is the process of handing over of patient?		
ADMIN'S			
1	What is your hand hygiene compliance?		
2	What is the holding period for patient in emergency?		
PREVENTION & CONTROL OF INFECTION			

1	What all conditions require hand washing?		
2	Steps of hand washing?		
3	How often you change the PPE?		
4	What is BMW? What is the policy on disposal of BMW?		
5	What is the policy on needle stick injury?		
MEDICATION MANAGEMENT AND USE			
1	How do you indent articles from pharmacy/ CSSD/ Medical store?		
2	what should be done when medication room temp is above the acceptable level?		
3	What is the process if medication error occurs? Who can fill the medication error form?		
4	What is the policy for storage of high alert medication?		
5	How do you store narcotics?		
6	What is the policy for storage of LASA?		
7	What is the frequency of checkin carsh cart?		
8	If you receive verbal order what you will do ?		
POST DISCHARGE EDUCATION			
1	What is the policy for patient being discharged LAMA?		
2	Please show me the emrgency discharge summary/ case summary?		
3	What all is documented while discharging a patient from the emergency?		
4	Do you have follow up plan for patients after discharge?		
GENERAL			
1	Are there written adverse event (AE) policies and procedures specific to transplant?		
2	What is the policy for patient being discharged absconding?		
3	Where you put sharp items?		
4	what measures are taken to protect patient possessions from theft or loss?		
5	What is the policy on checking the HAZMAT kit/blood spill kit?		
6	What is the spill management policy on drugs/HAZMAT/body fluids?		
7	Does the hospital provide fire and disaster management training?		
8	How to ensure patient privacy?		
9	Where are the fire exits?		
10	What are the steps for fall prevention?		
11	Does the staff know the emergency codes?		
12	What is the policy on reporting of critical results?		
Patient Record			
1	Is the writing legible?		

2	Are any abbreviations used and are these the accepted ones?		
3	Check for the MAR document?		
4	Have the doctors orders been followed?		

10.3 Checklist of Liver Transplant audit

PATIENT TRACER AUDIT (LIVER TRANSPLANT)			
Patient details Name: UHID: Sex: Bed no: Date of admission: Diagnosis:			
SR. NO	PRIORITY FOCUS AREA	OBSERVATION	REMARKS
DOCTOR'S			
1	What types of organs & tissues are part of your hospital's program?		
2	Which selection criteria are used for organ/tissue recipients?		
3	What criteria do you use for selection of living donors?		
4	What are the criteria for accepting international patients ?		
5	Who are the members of legal authorization committee & what is the purpose of the committee?		
6	How the authorization relates to patient?		
7	Do you have the minutes of meeting for the authorization committee meeting?		
8	Where do you keep the authorisation form?		
9	Who gives the pre operative counselling for recipient & donor		
10	Where do you document that you have given counselling to the patient ? Are you writing it in the PFE form?		
11	Are you doing pair exchange donor transplantation?		

12	Where is doctors plan of care with measurable goal?		
13	Where do you document patients history?		
14	Who fills the PAC form?		
15	Where is the plan for anesthesia?		
16	Show me the surgical consent for liver recipient & donor		
17	Who will take the consent and inform the patient?		
18	Show me the surgical safety checklist		
NURSE'S			
1	What is the nurse patient ratio for liver transplant recipient & donor?		
2	If you have a patient in your room, how do you identify the patient?		
3	Do you identify the patient using the blue label on the door?		
4	How do you identify the patients at risk?		
5	Have the nurses done specialized training for taking care of liver transplant patient's?		
6	What special post operative care you give to liver transplant recipient patient & donor?		
7	Do you have pre evaluation(pre work up)for liver transplant recipient & donor?		
8	Is there any special instruction for documentation for transplant patient?		
9	Show me the nursing Initial assessment form?		
10	Please explain pre operative checklist.		
11	How do you prepare the nursing care plan?		
12	Show me the measurable goal		
13	Do you have Clinical pathway?How do you follow the clinical pathway?		
PREVENTION & CONTROL OF INFECTION			

1	What is the policy of handwashing?		
2	What is your hand hygiene compliance?		
3	How often you change the PPE?		
4	When you leave a patient room, where do you throw the PPE?		
5	How you maintain the positive & negative room temperature?		
6	What kind of infection control strategies you are using?		
7	Where is the care bundle checklist? How care bundle compliance is audited & data maintained		
8	What is BMW?		
9	How often do you change the BMW?		
10	How do you know that the patient is in contact precaution?		
11	If there is a needle stick injury, what is the process?		
12	Who is accountable for needle stick injuries and post exposure prophylaxis?		
13	It is recommended to stick signage boards for positive pressure as well as negative pressure isolation rooms.		
14	Do you have an isolation process for an infectious patient?		
MEDICATION MANAGEMENT AND USE			
1	What is your medication process?		
2	How is the appropriateness of a medication prescription reviewed?		
3	What is the process of indenting medication from pharmacy?		
4	Process of medication administration		
5	Show the MAR document.		
6	How often you check medication expiry and when you change it?		
7	How you keep high alert medication?		

8	How you separate high alter medication from routine medications?		
9	What is your policy before starting immunosuppressive drugs?		
10	Show the narcotic drug and narcotic policy.		
11	Do you have a register to keep record of narcotics?		
12	After administering narcotic drug, where you will document it?		
13	How you separate LASA medications ?		
14	Show the list of LASA medications ?		
15	In which all condition you will follow verbal order ?		
16	How do you monitor the medication room temperature?		
17	Where do you keep insulin?		
18	How many days you can use insulin once opened?		
19	How long you keep the insulin pen ?		
20	Do you have a glucometer?		
21	Where is the expiry of glucostrips?		
22	How long the glucometer strips are stored once it is opened?		
23	How do you check fridge temperature?		
24	How often do you check fridge temperature?		
25	If you receive verbal order what you will do ?		
26	What all condition you will follow verbal order ?		
27	What is the policy on stat orders?		
28	How do you clean medication cupboard?		
29	Show me the pain scoring.		
30	Pain score is 4/10, What medication did you administer?		

31	How often do you reassess the pain after giving pain medications?		
32	What happens if patient falls?		
33	What are the interventions you will take for preventing fall?		
34	Do you have the crash cart medication list?		
35	Who checks the crash cart?		
36	When do you check the crash cart?		
DIETICIAN			
1	What is your Nutrition screening criteria ?		
2	When would you do nutritional assessment & make care plan ?		
3	Timeframes for nutrition assessment and re-evaluation of nutritional risk		
4	How you ensure whether patient is getting High protein & high neutropenic diet ?		
PHYSIOTHERAPIST			
1	Do you have physiotherapy progress sheet?		
2	Who will mobilise the patient?		
3	How you document the need for physiotherapy?		
POST DISCHARGE EDUCATION			
1	Please show me the discharge summary?		
2	Who gives the post discharge orders for infection control measures & diet orders to the patient?		
3	Do you document it somewhere ?		
4	What is the protocol for post discharge medications orders ?		
5	Where it is documented that teaching has been given for the patient regarding use of pen insulin?		
6	Do you have follow up pain for patients after discharge?		

7	How do you follow up the international patient after discharge?		
8	Where is the study material for all the post discharge education given ?		
GENERAL			
1	What is the process if medication error occurs?		
2	Who can fill the medication error form?		
3	Are there written adverse event (AE) policies and procedures specific to transplant?		
4	Do you keep staff belongings in CU?		
5	What all things you keep in CU?		
6	Show me the cleaning agents.		
7	How you get these solutions?		
8	Do you have spill kit? Show me that.		
9	What you do with Hypochlorite?		
10	How frequently you change the date of hypochlorite?		
11	Where you put sharp items?		
12	How do you store mops?		
13	When do you recheck the HAZMAT kit?		
14	Who checks the HAZMAT kit?		
15	Does the hospital provide training regarding fire and disaster management?		

10.4 Exception Report format for data collection reporting by investigators.

Observations	Responsibility	Suggestion
Patient: Mr. Dharmander, UHID – MM00646494, Neurosurgery – Dr. Aditya Gupta; Diagnosis: Road traffic accident and poly- trauma		
MEDICAL RECORDS 1. Patient not assessed for allergies, adverse reactions and restraints (Dr Sanjeev) 2. It is not known if the doctor performed a systemic examination of this patient at the time of admission (Dr Sanjeev) 3. Current medications have not been documented in IP initial assessment form(Dr Sanjeev) 4. It is not known if the doctor has assessed the past medical history of the patient (Dr Sanjeev) 5. Unapproved abbreviations used: NBM-nil by mouth, CLW- closure of wound(Dr Sanjeev) 6. No measurable goals recorded (Dr Sanjeev) 7. In 2 of 2 instances checked, Time not written in progress notes 8. Doctor's name not mentioned in MAR, 2 of 2 forms checked 9. MLC stamp used for an outside MLC case 10. Speciality specific surgical consent forms being used 11. Per- operative monitoring chart lacks fluid summary 12. Post- operative shifting details missing	Neurosurgery team Doctor Doctor (Neurocritical care) Doctor Doctor	
FALL PREVENTION 1. Assigned staff unaware why the patient is at high risk for fall as per Modified Morse fall risk tool. However, all relevant interventions had been applied.	Nursing supervisor-	
CARE OF PATIENT – PAIN MANAGEMENT 1. Patient has arrived with a h/o RTA, intubated with ENT bleed but pain scoring in ER not done has been repeatedly experiencing pain but throughout the duration, pain score is recorded at 0/10 or 2/10.	Nursing supervisor	
CONSENTS 1. Reason for obtaining surgical consent from attendant (not patient) not mentioned	Doctor (Neurocritical care)	
CARE OF PATIENT – CARE DELIVERY OF ALL PATIENTS 1. Output route and amount of this patient on RT not documented in ER. 2. RTA with polytrauma patient on RT feed has been planned to require no wound care, physical therapy,	Nursing Neurosurgery team	

referral to GP at the time of discharge		
CARE OF PATIENT – FOOD & NUTRITION THERAPY 1. It's unclear to the doctor which document to refer for initial diet assessment. (Blank diet assessment in IP history form) 2. Nutrition screening done incorrectly in IP initial assessment (Un-conscious patient marked as fully mobile)	Dietician Nursing supervisor-	
MEDICATION 1. Medication drawer in patient room was found open 2. Medication(Liquigel) route missing in 2 of 2 MARs checked	Nursing supervisor-	
INFECTION CONTROL 1. The patient is on contact precautions but mask not available 2. Bed side bins overflowing 3. Pedals not working of bins in Medication room 4. ?Betadine spill on ceiling- above patient bed 5. NS 500 ml new bottle found in the sink of the medication room 6. CU room left open	Nursing supervisor-	
PATINET AND FAMILY EDUCATION 1. Not known if the family was counselled for -Actions taken and prognosis during ICU stay of the patient- 3 of 3 forms checked	Neurosurgery team	

10.5 Dates on which Tracer Audits were done.

		Dates on tracer audits done					
Sno	Topics/Specialities	FEBRUARY(11)		March(24)			
		3rd	4th	1st	2nd	3rd	4th
1	Transplant - Liver, Kidney, BMT	17.2.2015	27.2.2015		12.3.2015		24.3.2015 25.3.2015
2	CTVS, Thoracic & Vascular			7.3.2015		16.3.2015 20.3.2015	30.3.2015
3	Gastro & GI (covers Endoscopy)	17.2.2015	24.2.2015	4.3.2015	13.3.2015		25.3.2015
4	Urology & Nephrology (covers dialysis)		24.2.2015				
5	Orthopedics		25.2.2015		10.3.2015	18.3.2015	
6	Neurosciences		28.2.2015		11.3.2015		24.3.2015 26.3.2015 27.3.2015
7	Oncology (Medical, Radiation, Head & Neck, Breast)	21.2.2015	25.2.2015		13.3.2015	18.3.2015	25.3.2015
8	Multi-specialty (Respiratory, Plastic, Int. Med., Gynec, ENT, Dental, Ophthal, Endocrine)	19.2.2015	26.2.2015	5.3.2015		19.3.2015	
9	Emergency & Critical care			2.3.2015	12.3.2015	21.3.2015	