

ANALYSIS OF PATIENT SAFETY STANDARDS IN NON-COVID IPD AT THE MISSION HOSPITAL, DURGAPUR



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(I) INTRODUCTION

IOM defined the safety of the Patient as “the prevention of harm to patients.” Emphasis is laid on care delivery of system that

- (1) to avert mistakes;
- (2) learning from the fault that do occur; and
- (3) safety culture is laid on every individual which are segment of the health-care system including organizations, patients and health-professionals.

Types of Errors :-

- 1) Adverse Health care Events
- 2) Health care Near Miss Events
- 3) Adverse Drug reaction
- 4) Medication Error
- 5) Sentinel Error

Accreditation :-

- In 1998, the Joint Commission International Accreditation (JCI) was founded in the United States to meet the growing demand for accreditation.
- ISQua (International Society for Quality in Health Care) was set up as an umbrella organization to deliver certifications to other accredited organization.
- In the year 2006, NABH was founded & refers to National Accreditation Board for Hospitals and Healthcare Providers.
- JCI (Joint Commission International) in the year 2006 developed IPSG (International Patient safety Goals).

(II) RESEARCH QUESTIONS

- a) What are the Patient Safety Quality Indicators in non-COVID IPD.
- b) What are the Patient Safety Devices in non-COVID IPD.

(III) OBJECTIVES

- To assess the compliance of Patient-Safety Quality Indicators in the non-COVID IPD as per NABH and International Patient Safety Goals.
- To assess the compliance of Patient-Safety devices in non-COVID IPD

(IV) METHODOLOGY

Method – Quantitative & Qualitative

Study design – Retrospective, Observational and descriptive study

Duration of Study :- 22nd March to 21st June 2021 (3 months)

Study Setting :- The Mission Hospital, Durgapur

Sample Size :- Purposive sampling

Objectives	Samples	Data Collection	Tool	Technique
Objective 1	- CAUTI - Patient fall - Pressure Bed sores - IPD files of prescription error - Hand Hygiene Compliance	- Secondary data - Secondary data - Secondary data - Primary data - Primary data	Checklist Checklist	- Survey through observation - Survey through observation
Objective 2	- Patient Id band - Crash Cart trolley - Nurse Call-bell - Electrical board near Patient beds	- Primary data - Primary data - Primary data - Primary data	Checklist Checklist Checklist Checklist	- Observation - Observation - Observation - Observation

Inclusion Criteria :-

- Non-COVID General wards are included.
- Open file audit for prescription.
- Doctors, Nurses, Physiotherapist & GDA staff of non-COVID IPD for hand hygiene
- Patient safety devices of general wards are included

Exclusion Criteria :-

- COVID Isolation Ward, OPD, CCU, MICU, ITU, HDU & Pediatric ward are excluded
- Closed file audit is excluded.
- Patient safety devices of OPD, CCU, MICU, ITU, HDU & Pediatric ward are excluded

(V) RESULTS :-

(5.1) Patient Safety Quality Indicators

(5.1.1) Inpatient Fall Rate :

Fig 5.1.1 depicts that 5.85 fall per thousand patient bed days occurred in the month of December and 14.13 fall per thousand patient bed days occurred in the month of March

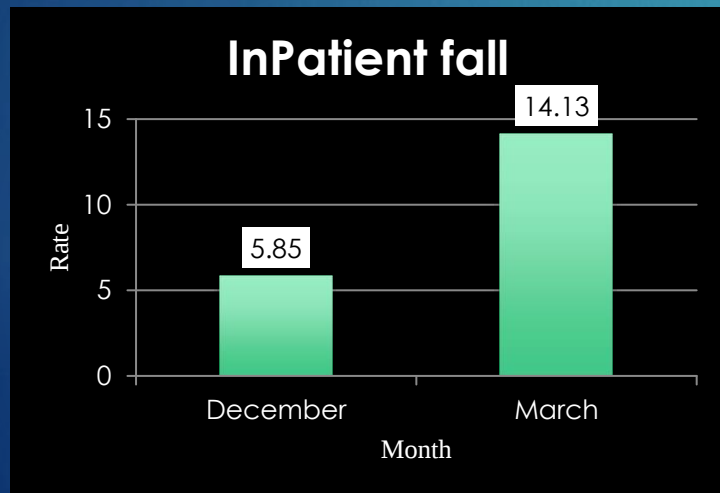


Fig. 5.1.1 : Inpatient Fall rate

(5.1.2) Catheter Associated Urinary Tract Infection Rate :

Fig. 5.1.2 - The total study population was 3487 and 11872 had catheter days

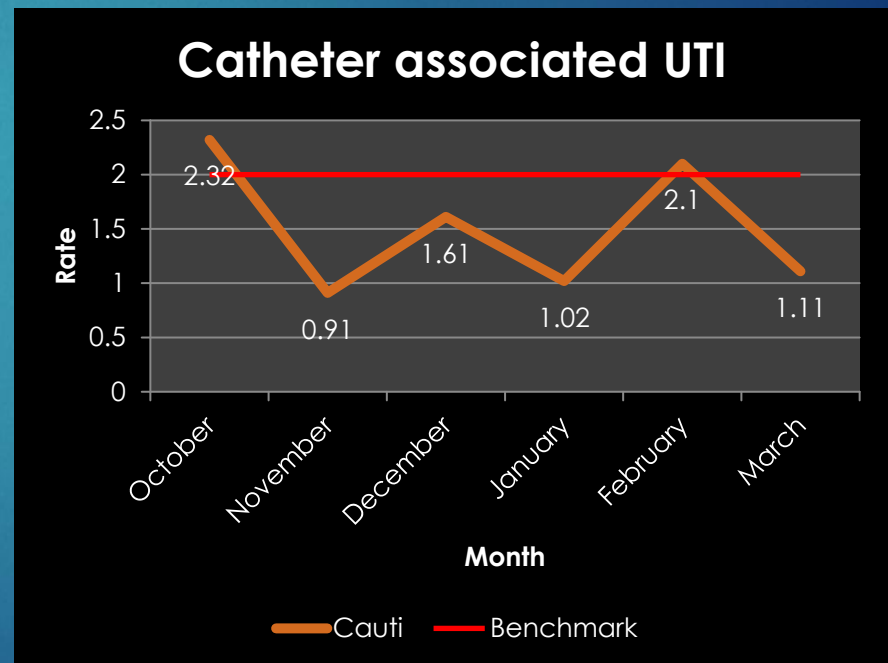


Fig 5.1.2 : Cauti Infection Rate

(5.1.3-1) Hospital associated Pressure Ulcer rate :

Fig. 5.1.3-1 depicts that 10.68 per thousand patient bed days Pressure Ulcer occurred in the month of October whereas 3.73 per thousand patient bed days in the month of November, 3.9 per thousand patient bed days in the month of December, 3.16 per thousand patient bed days in the month of January, 5.29 per thousand patient bed days in the month of February, 3.43 per thousand patient bed days in the month of March.

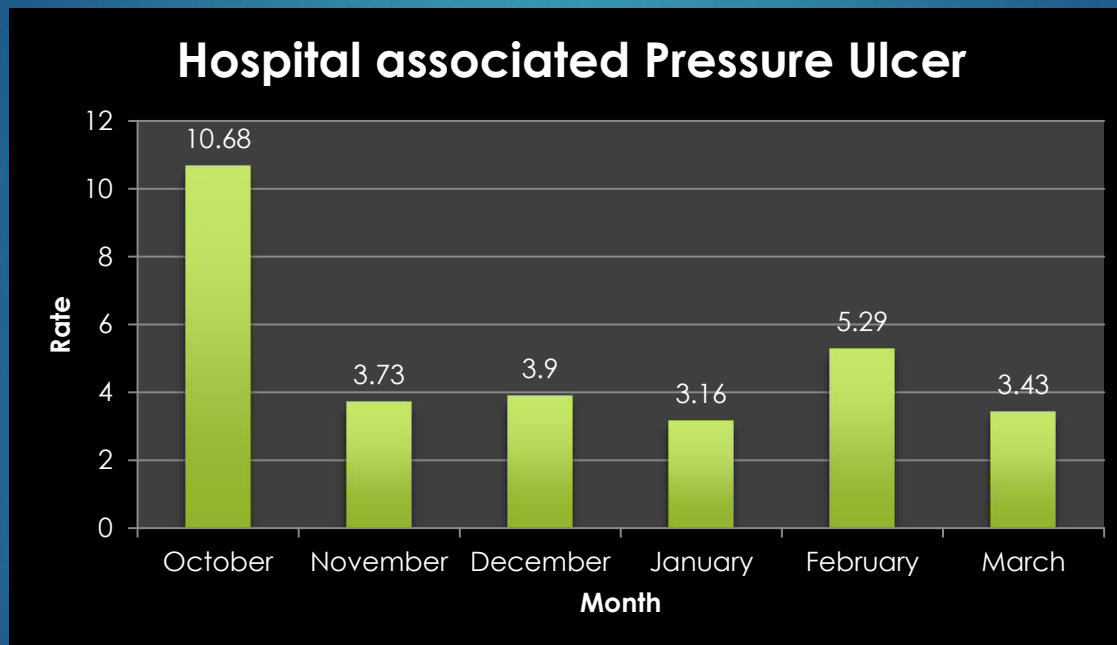


Fig 5.1.3-1 Hospital associated Pressure Ulcer

(5.1.3-2) Pressure Ulcer Location and Stage wise :

Fig. 5.1.3-2 depicts that in both buttock 3 patient suffered from stage 1 ulcer while in left buttock 4 patient to stage 1 & 1 patient to stage 2. In right buttock, 1 patient to stage 1 & 2 patient to stage 2 ulcer. In sacrum region, 3 patient suffered from stage 1 & 2 patient suffered from stage 2 ulcer, In right hand forearm, only 1 patient suffered from stage 2 ulcer. None of the patient suffered from pressure ulcer neither stage wise 3 & 4 nor location wise.

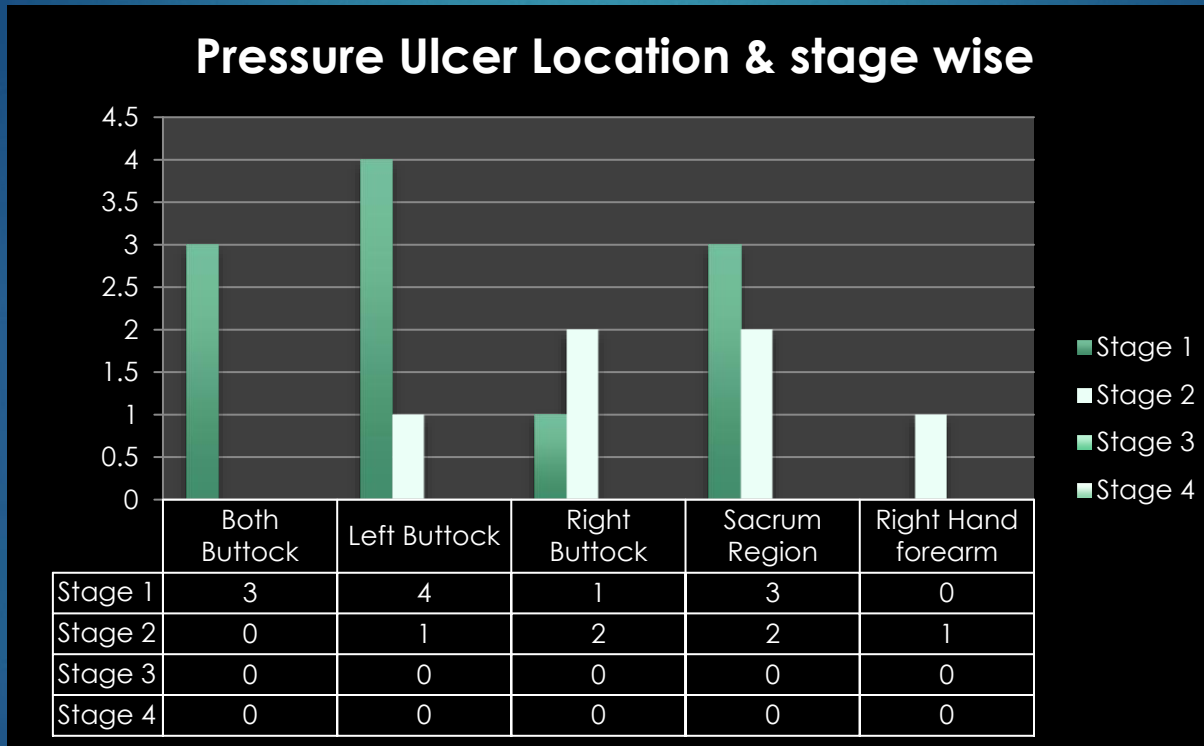


Fig 5.1.3-2 : Location & stage wise pressure ulcer

OBSERVATION

(5.1.4-1) Hand Hygiene Compliance:-

Fig. 5.1.4-1 depicts that the overall opportunity in the month of April is 537 out of which 374 is the compliance & 163 is the non-compliance whereas in the month of May 530 is the total opportunity out of which 352 is the compliance and 178 is the non-compliance.

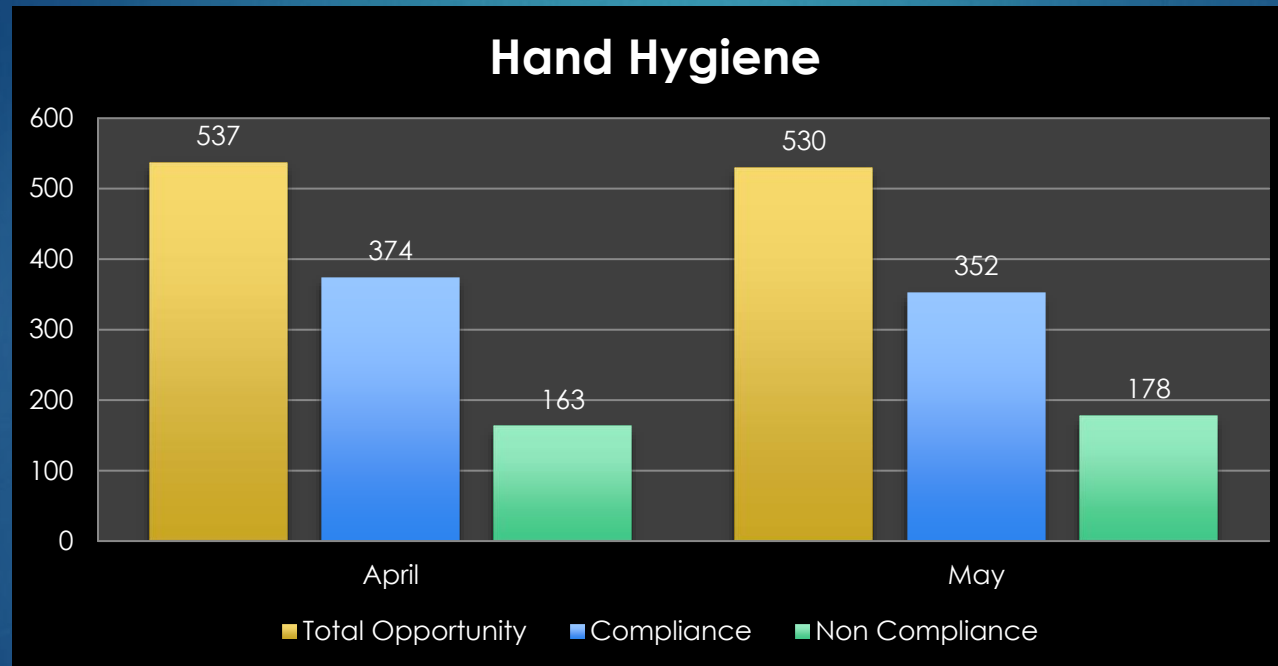


Fig 5.1.4-1 : Hand Hygiene Compliance of overall participants

(5.1.4-2) Percentage Compliance of Hand Hygiene of participants

Fig. 5.1.4-2 depicts that the compliance rate of doctors is 62.8%, Nurses 72.8%, GDA 64.3%, Physiotherapist 66.7% in the month of April whereas in the month of May compliance rate for doctors is 65.5%, Nurses 68.2%, GDA 60.9%, Physiotherapist 61.5%.

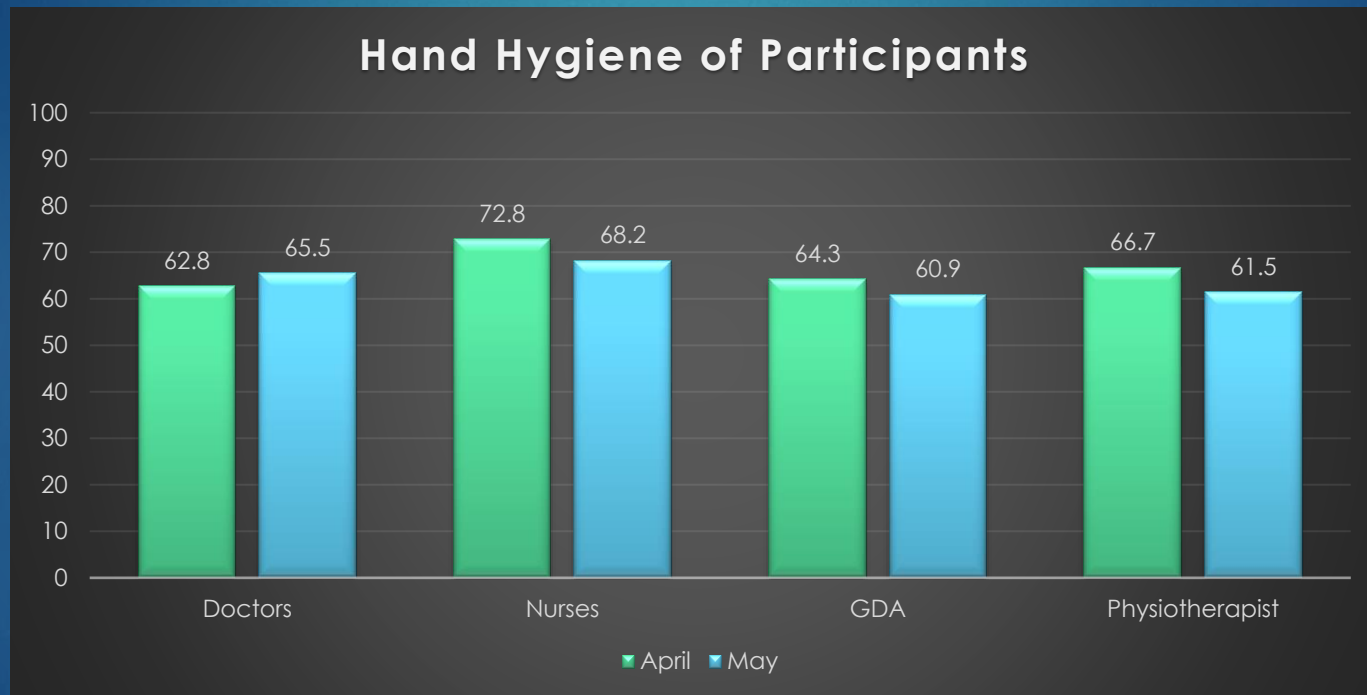


Fig. 5.1.4-2 : Hand Hygiene compliance of individual participants

Reasons for Non-compliance of Hand Hygiene

Table 5.1.4-2 : Reasons for not following Hand Hygiene

Table 5.1.4-1 :
Characteristics of participants

Participants	Number	Percentage
Doctors	12	21.8%
Nurses	26	47.3%
Physiotherapist	5	9.1%
GDA	12	21.8%
Total	55	

Respondents	Never	Rarely	Often	Every time
I forgot	49.1% (27)	27.3% (15)	18.2% (10)	5.5% (3)
Due to skin damages & irritation	47.3% (26)	32.7% (18)	10.9% (6)	9.1% (5)
Non accessibility of sink or the alcohol-based hand rub	49.1% (27)	25.5% (14)	21.8% (12)	3.6% (2)
Hand hygiene is not important for every patient	49.1% (27)	29.1% (16)	9.1% (5)	12.7% (7)
Due to lack of time	38.2% (21)	32.7% (18)	23.6% (13)	5.5% (3)
Hand Hygiene not practiced by other colleagues	56.4% (31)	12.7% (7)	9.1% (5)	21.8% (12)
Patients get offended by my washing hands	34.5% (19)	41.8% (23)	14.5% (8)	9.1% (5)

AUDIT

(5.1.5) Prescription Audit

5.1.5-1) Name of drug (clear & legible)

Fig. 5.1.5-1 shows that in the month of April 37.3% compliance, 34.7% partial compliance & 28.0% non-compliance in the name of drugs occurred in the medicine card whereas in the month of May 34.7% Compliance, 38.7% partial-compliance & 26.7% non-compliance were depicted.

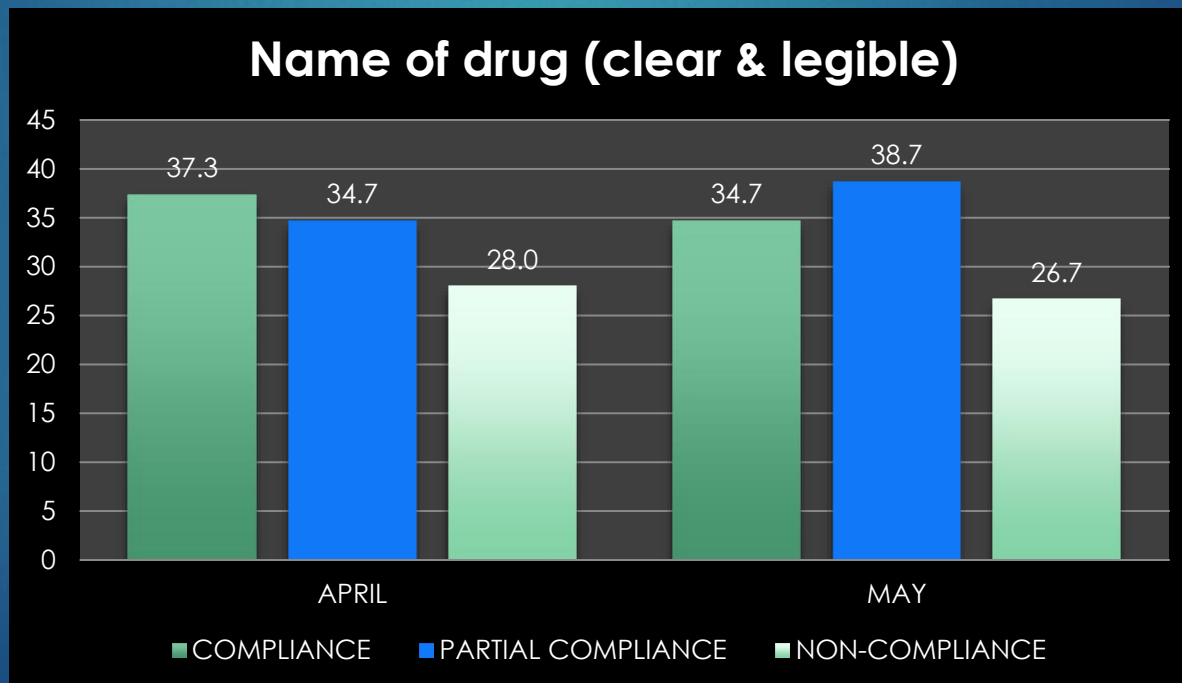


Fig .5.1.5-1 : Name of drug (clear & legible) in the medicine card

5.1.5-2) Name of drug in block letters –

Fig. 5.1.5-2 depicts that in the month of April 44% compliance, 36% partial-compliance & 20% Non-compliance occurred with the drugs name in block letters in the medicine card whereas in the month of May 36% Compliance, 32% Partial-compliance & 32% non-compliance were observed during audit.

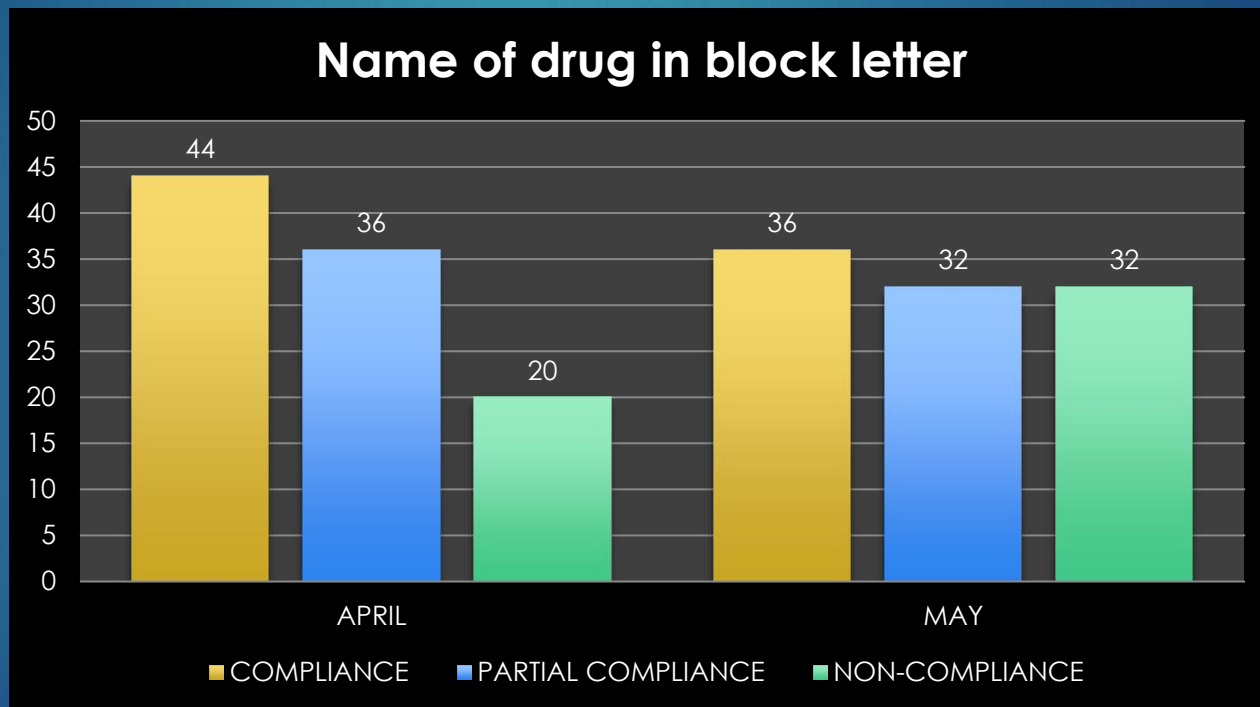


Fig 5.1.5-2 : Name of drug in block letters in the medicine card

5.1.5-3) Numerical dose & unit of measure run together

Fig. 5.1.5-3 depicts that in the month of April 28.0% compliance, 37.3% partial-compliance, 34.7% non-compliance occurred in Numerical dose & unit of measure while in the month of May 24.0% Compliance, 40.0% partial-compliance & 36.0% non-compliance.

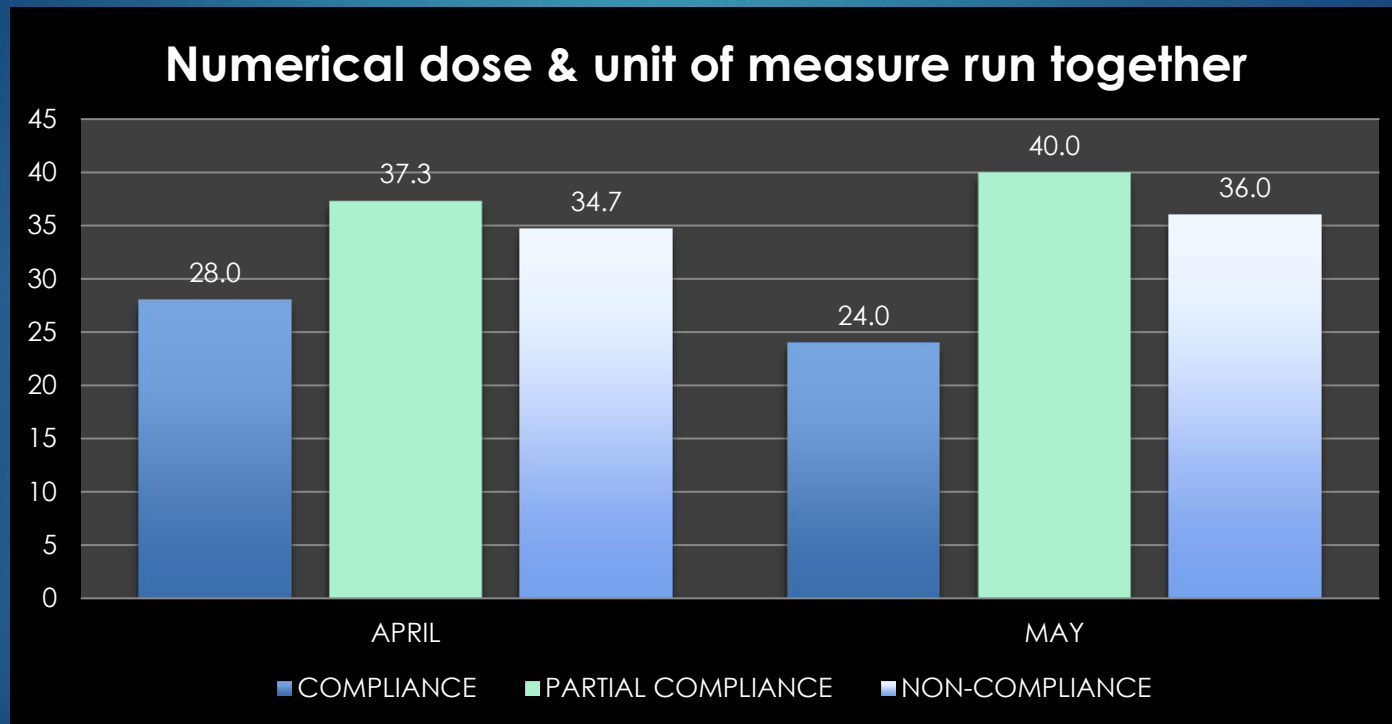


Fig 5.1.5-3 : Numerical dose & unit of measure run together

5.1.5-4) Error prone drug abbreviations

Fig. 5.1.5-4 depicts that 53.3% compliance, 38.7% partial-compliance & 8.0% non-compliance of error prone drug abb. occurred in the month of April while 60.0% compliance, 26.7% partial-compliance & 13.3% non-compliance in the month of May.

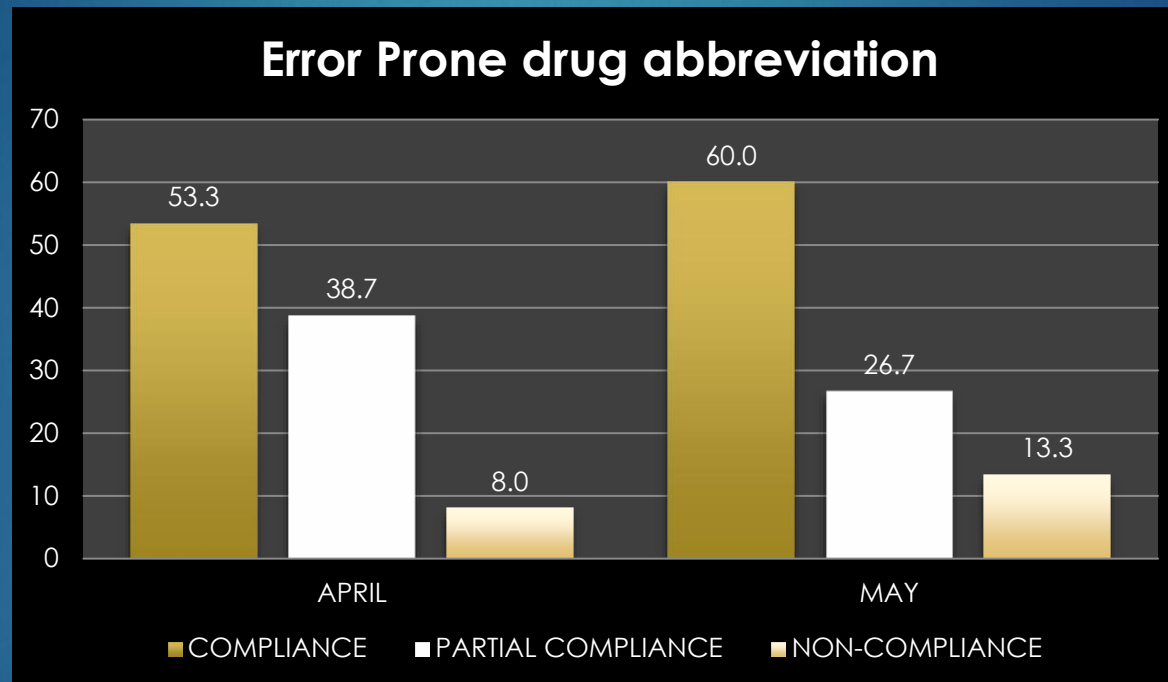


Fig. 5.1.4-4 : Error prone drug abbreviation in the medicine card

5.1.5-5) Route & Frequency

Fig 5.5 depicts that in the month of April 68.0% compliance 22.7% partial compliance, 9.3% non-compliance occurred in route & frequency whereas in the month of May 72.0% compliance, 14.7 partial-compliance & 13.3% non-compliance.

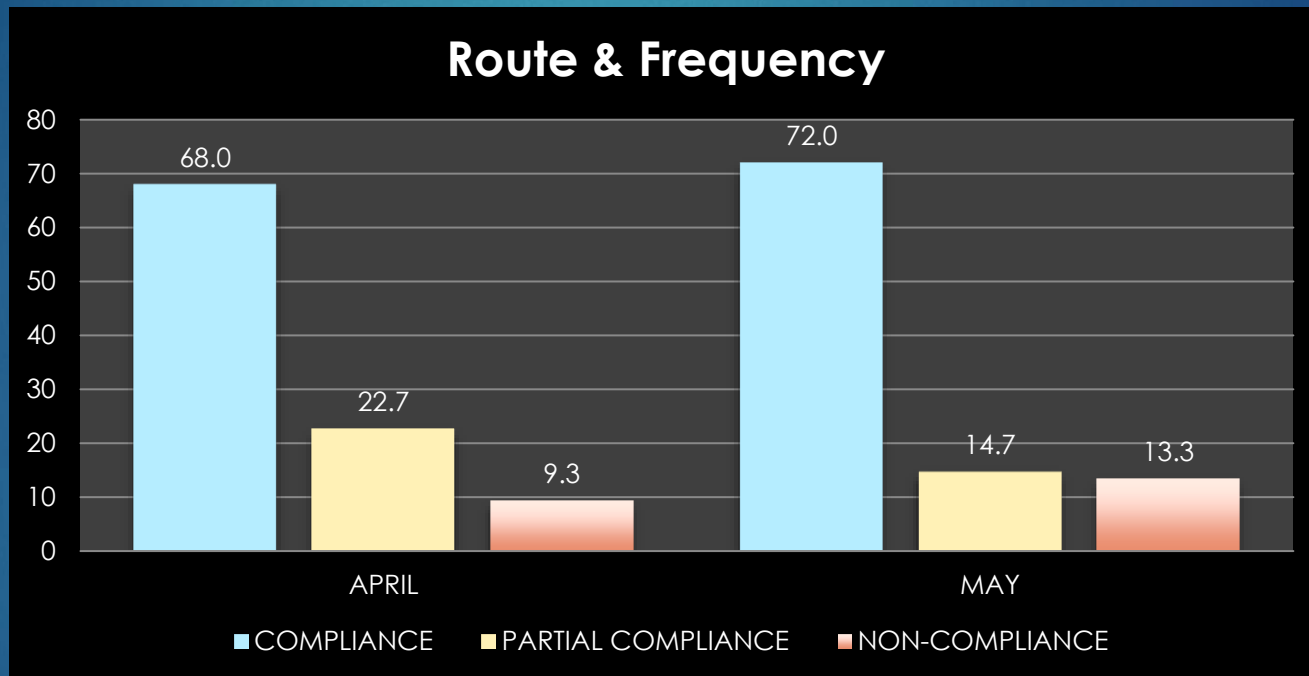


Fig 5.1.5-5 : Route & frequency administered in the medication card

5.1.5-6) Prescribers signed & stamped:

Fig 5.1.5-6 depicts that 56.0% compliance, 22.7% partial compliance & 21.3% non-compliance of prescribers signed & stamped in the medicine card in the month of April followed by 43.3% compliance, 23.3% partial compliance & 33.3% non-compliance in the month of May.

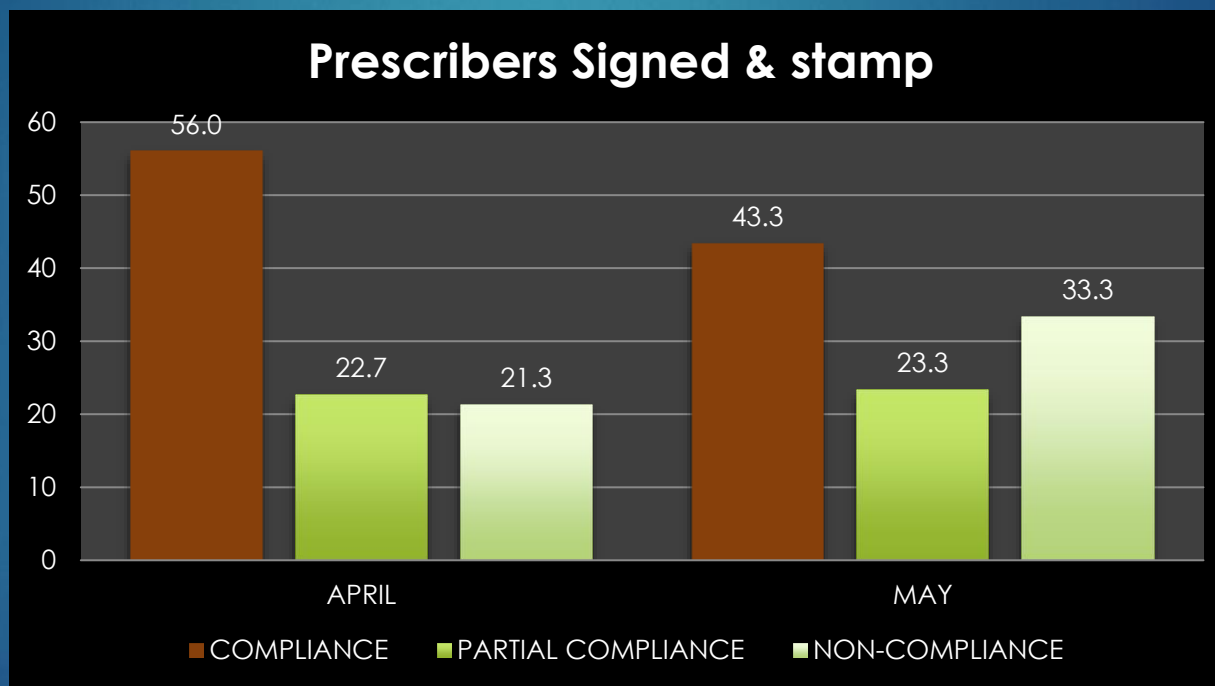


Fig. 5.1.5-6 : Prescribers signed & stamped in the medicine card

(5.2) Patient Safety Devices :

5.2.1-1 Crash Cart trolley :-

Fig 5.2.1-1 depicts 10% compliance & 90% non-compliance with cart lock & key followed by 90% compliance & 10% non-compliance with the availability of defibrillator while 70% compliance & 30% non-compliance with the defibrillator in working mode followed by 60% compliance & 40% non-compliance with the expired drugs in the cart & 80% compliance & 20% non-compliance with the documentation of crash cart trolley.

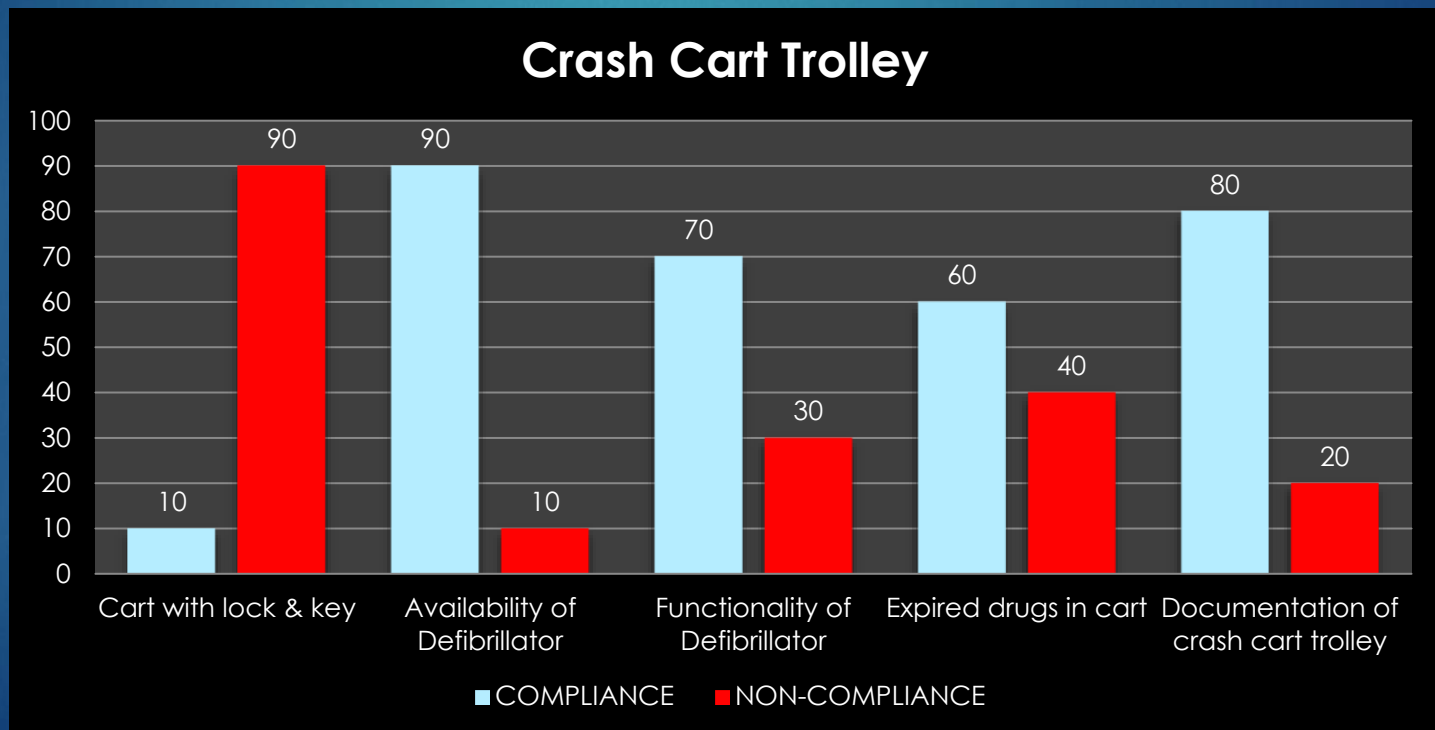


Fig. 5.2.1 : Compliance & Non-compliance of Crash Cart Trolley

Fig. 5.2.1-2 depicts that 62% compliance & 38% non-compliance with the 1st drawer elements (n=26) followed by 84% compliance & 16% non-compliance with the 2nd drawer (n=19), 64% compliance & 36% non-compliance with the 3rd drawer (n=63), 88% compliance & 12% non-compliance with the 4th drawer (n=12), 84% compliance & 16% non-compliance with the 5 drawer (n=26), 90% compliance & 10% non-compliance with the 6 drawer (n=6) followed by 92% compliance & 18% non-compliance with the crash cart upper portion (n=16) followed by 86% compliance & 14% non-compliance with the down drawer (n=30)

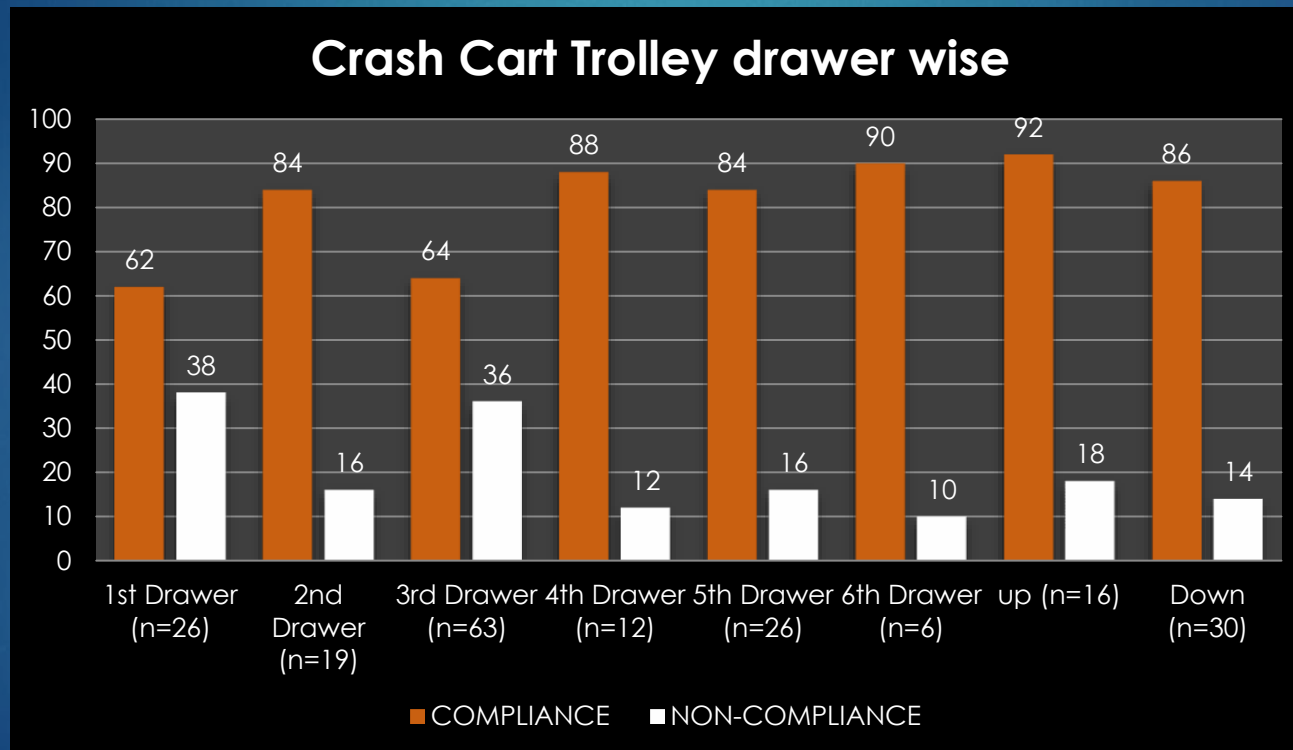


Fig. 5.2.1-2 : Compliance & Non-compliance of Crash Cart trolley drawer wise

5.2.2 - Patients Identification band :-

Fig. 5.2.2 depicts that 8% compliance & 92% non-compliance with the availability of white color band followed by 81.0% compliance & 19% non-compliance with the availability of orange color (vulnerable) band while 79.3% compliance & 20.7% non-compliance with the patient details clear & legible on band.

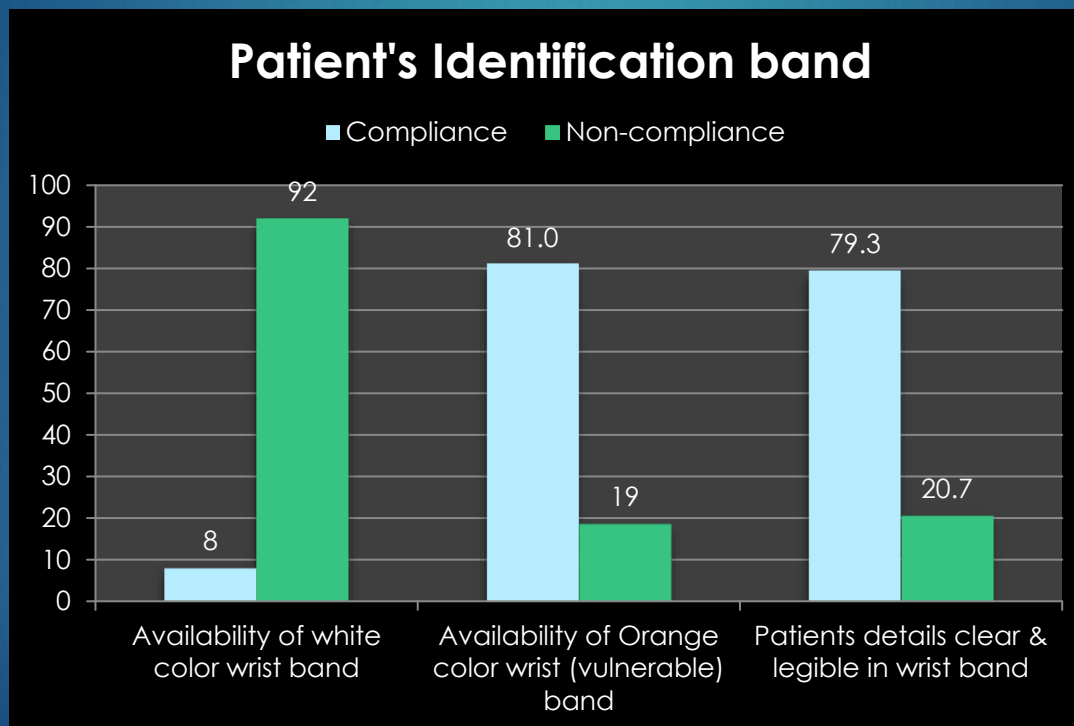


Fig. 5.2.2 : Patient's Identification band

5.2.3 Nursing Call bell –

Fig. 5.2.3 depicts that 80% compliance & 20% non-compliance with the availability of nursing call bell.

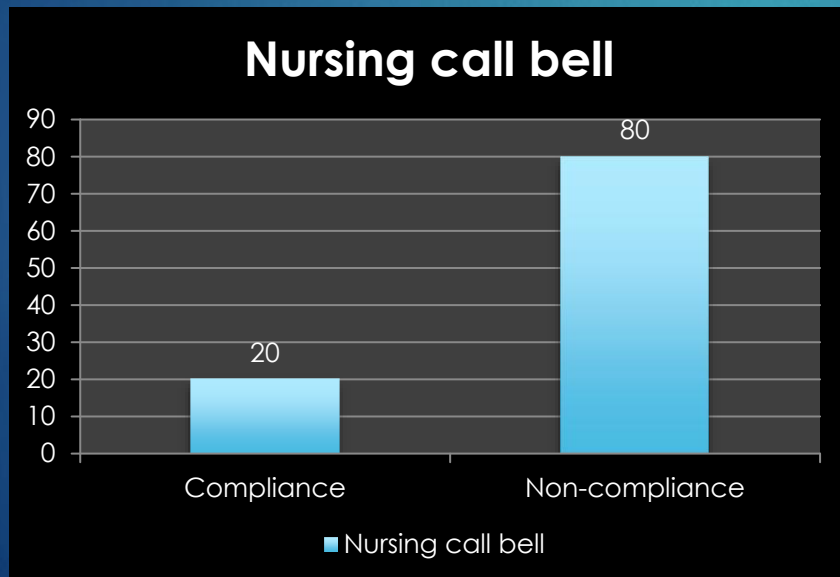


Fig 5.2.3 : Availability of Nursing Call bell

5.2.4 Electrical board near patient beds–

Fig. 5.2.4 depicts 90% compliance & 10% non-compliance with the electrical board near patient beds followed by 78% compliance & 22% non-compliance of electrical board in working condition.

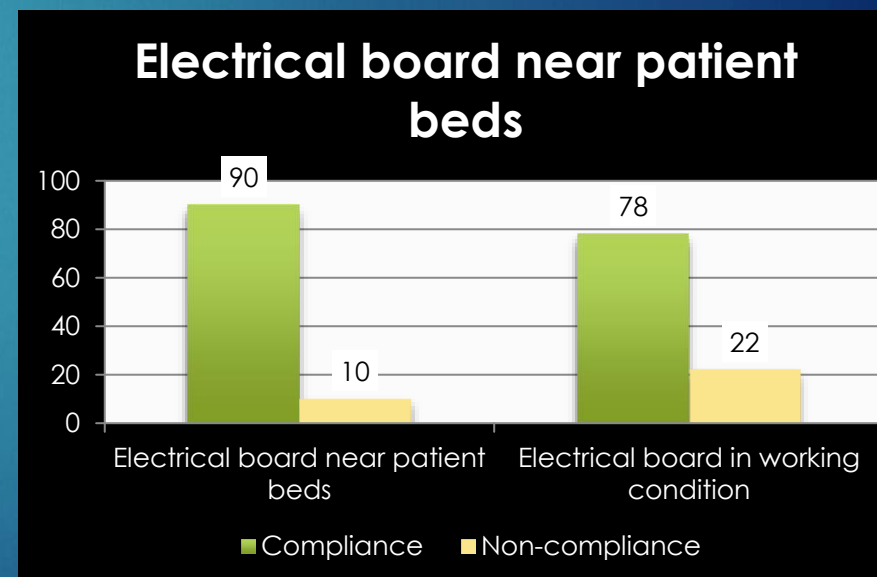


Fig. 5.2.4 : Electrical board near Patient beds -

Root cause analysis of Inpatient fall :-

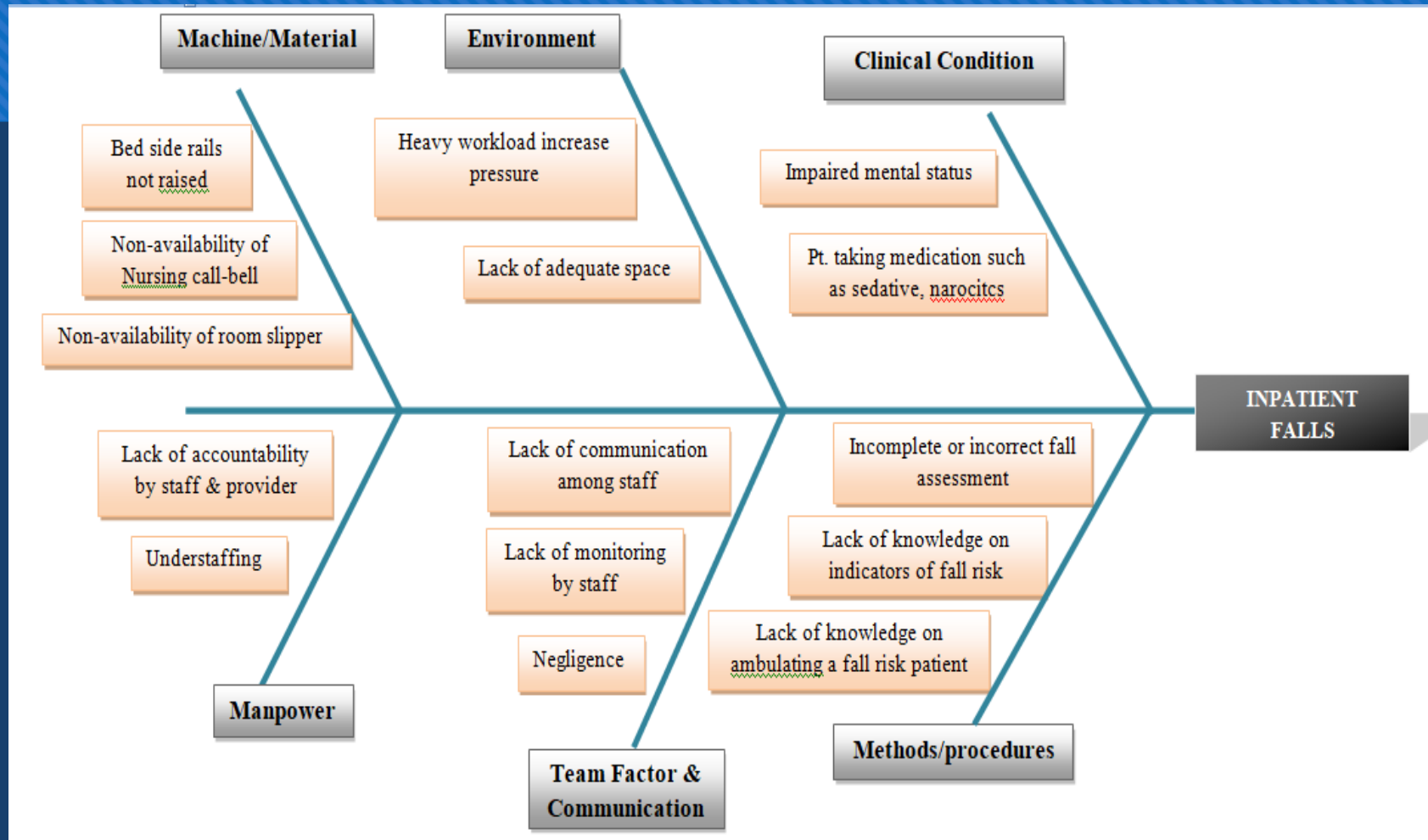


Fig. 6.1: Ishikawa diagram for Inpatient Falls

Root cause analysis of Hand Hygiene :-

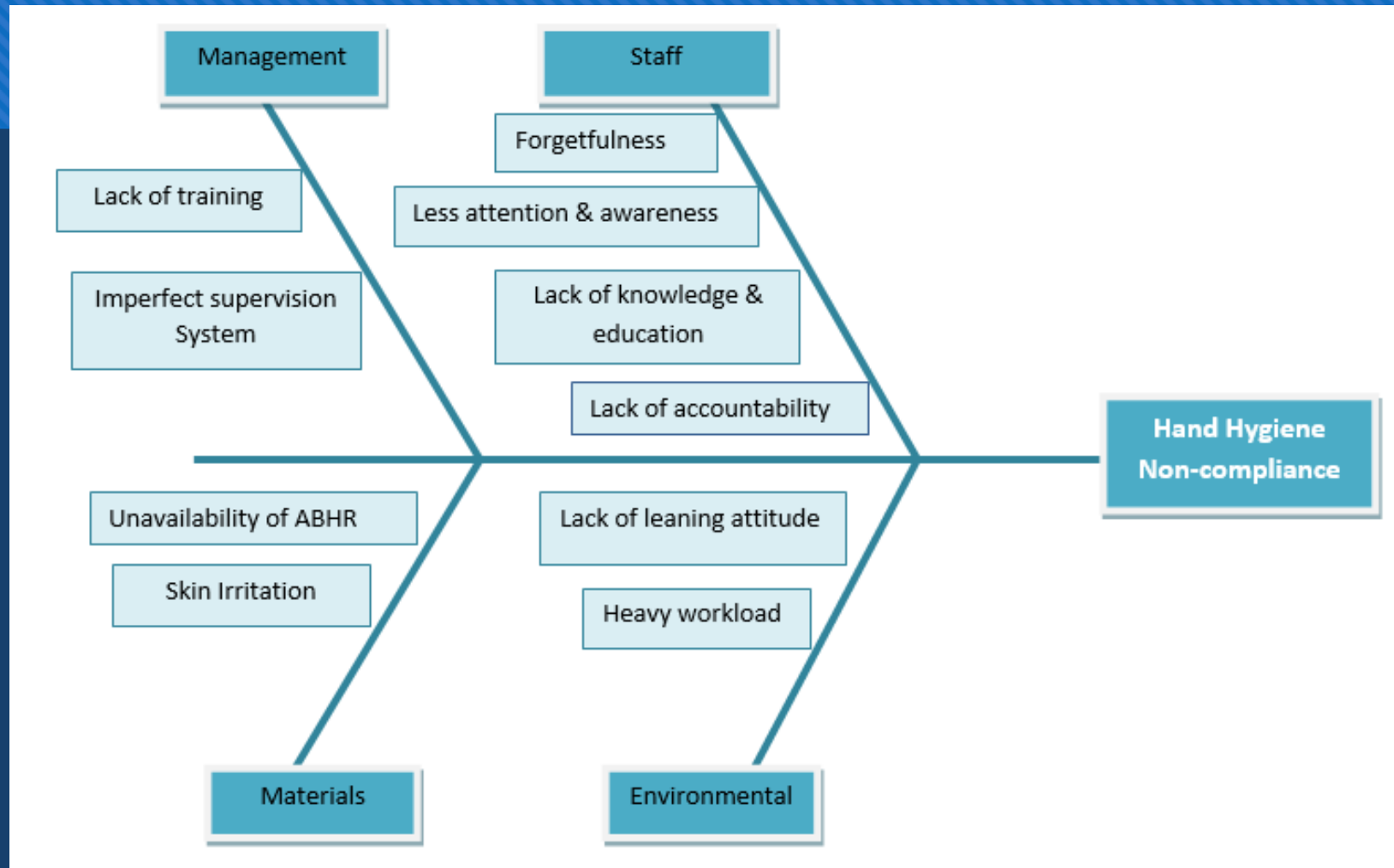


Fig. 6.2 : Ishikawa diagram for Hand-Hygiene non-compliance

(VI) RECOMMENDATIONS:

- ✓ Regular internal audits must be conducted.
- ✓ The audit data must be synergies & regular training must be implemented to improve the quality & good prescribers practice.
- ✓ Audits must be on fixed date & time & non-compliance with the expired medications & missing audits should be monitored.
- ✓ Complete documentation of file, registers must be recorded and monitored.
- ✓ Corrective and preventive actions (CAPA) must be done at the sight
- ✓ Staff must be acknowledge about SOP, hospitals policy & protocols.
- ✓ Education and training to the health care providers regarding 5 moments of HH
- ✓ Electronic hand hygiene monitoring systems must be implemented.
- ✓ Consideration of Electronic Medical Records.
- ✓ Bar codes and scanners technologies must be implemented in the patient ID band.
- ✓ Benchmarking for all standards must be revised & it should be maintained.

(VII) CONCLUSION:

Healthcare organizations emphasis on continuous improvement for the patient safety in the organization environment. Training regarding education & knowledge should be utmost preference to magnify the understanding of staff. It is the responsibility of the hospital to sensitize the staff regarding the patient safety and trained them. Staff must be adhere with the standards, protocols and policy of the hospital.



FIRST DO NO HARM

Thank you