A STUDY ON EMERGENCY DEPARTMENT OF C.K. BIRLA HOSPITAL | RBH, JAIPUR

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INTRODUCTION

- A descriptive study to review the hospital quality guidelines, in which the retrospectively patient records were reviewed with the help of an observation checklist based on the NABH standards provided by the quality department at the hospital.
- The assessment of infrastructure and services provided by the staff of the hospital was carried out to find out the current level of facilitating and hindering factors.

LITERATURE REVIEW

SN.	TITLE	YEAR	AUTHOR	KEY OBJECTIVES	KEY FINDINGS
1	Strategies for improving physician documentation in the Emergency Department – a Systematic Review	October 2018	• Diane L. Lorenzetti • Hude Quan • Jason Jiang • Cynthia A. Beck	To review the physician documentation of emergency department and assess the effectiveness of appropriate approaches to improve the documentation done by the physician.	Study revealed that the improvement in the physician documentation can be achieved by implementing the EMR which would improve the level of accuracy for complete documentation.
2	An analytical study on medical waste management in hospitals	February 2018	Sutha Irin A	To identify the BMW segregation practices prevailing in the hospital and to find out whether the training program is conducted for the hospital staff	The study exposed that in both private and government hospitals the management of BMW has not received sufficient consideration which may lead to increased nosocomial infections
3	Effect of interruption on triage effect in Emergency Department	October 2019	• Kimberly D Johnson • Gordon L. Gillespie	To identify Triage interruption and determine how it affects the triage process in emergency department.	Study stated that the interruption during the process can cause delay and interfere with providing safe and effective patient care and may lead to error in assessment and documentation

RESEARCH QUESTIONS

What are the quality assurance guidelines of the hospital as per NABH standards ?

What are the current facilitating and hindering factors for the level of quality standards of structure and processes in the emergency department?

OBJECTIVES OF THE STUDY

- To review the quality assurance guidelines of the hospital (if any), NABH standards for structure and processes in Emergency department.
- To assess the quality of Emergency Department in terms of structure and process.
- To study the facilitating and hindering factors for the current level of quality standards of structure and processes.

METHODOLOGY

STUDY DESIGN	**Descriptive Study**
SETTING	**Emergency Department of C.K. Birla Hospital, Jaipur**
DURATION OF STUDY	**Three months (Feb-May 2020)**
SAMPLE SIZE	• 30% of total foot fall of patients (830) in the emergency department was taken into consideration. • A minimum of 250 samples were used for validation • **Planned:** 250 ED patient records • **Reviewed :** 110 ED patient records were reviewed retrospectively.

❖ Interview with emergency department staff and in-depth interview with senior management was planned but could not do because of ongoing Covid-19 crisis

STUDY POPULATION

- Patients coming to the Emergency Department

STUDY TOOLS

- Observation checklist was used to assess the infrastructure and services provided by the staff of the hospital.
- A data sheet was developed to record relevant information from Emergency Department register.

DATA COLLECTION PROCEDURES

- Review of the quality policy, guidelines, SOPs of emergency department of the hospital, NABH guideline.
- Reviewing of hospital manuals, policies and records
- Observation of the structure and processes.

DATA ANALYSIS

Data analysis was carried out using MS Excel. Analyses of each indicator in terms of % compliance meeting the standards. All the parameters in the self-assessment tool kit were assessed under the following categories

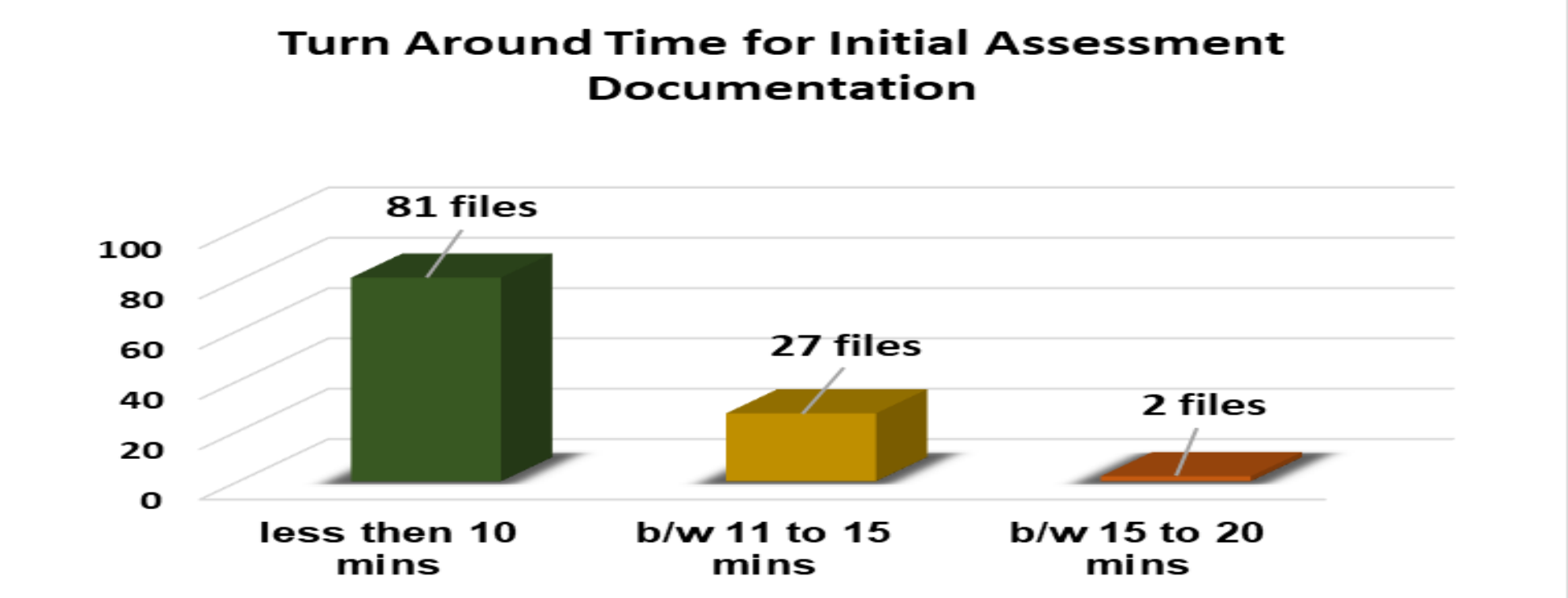
- Compliance
- Partial-compliance
- Non-compliance

RESULTS

Standard 1: Time frame for doing and documenting initial assessment

- Out of total 110 patient files audited, the initial assessment form of 29 files (26%) were showing non- compliance.
- Documentation of initial assessment was not done within the standard time 10 minutes as per the policy of the department of the hospital as well as NABH guidelines.

Percent Distribution of Turn Around Time for Initial Assessment Documentation in Emergency Department

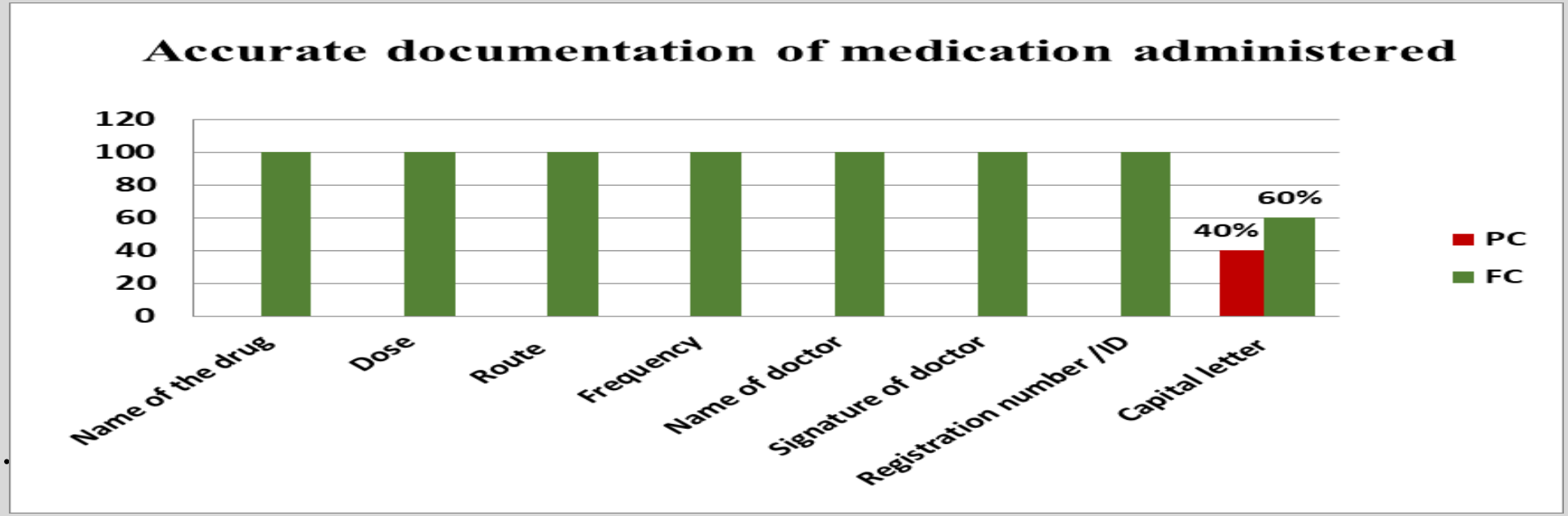


REASON OF DELAY: Shortage of staff because of the ongoing Covid-19 crisis.

Standard 2: Accurate documentation of medication administered

- Out of total 110 patient's files audited, drug chart of 44 files (40%) were showing partial compliance,
- Medications administered were not accurately documented in the assessment form.
- Drug name was not written in capital letters as per the policy of the department of the hospital as well as NABH guidelines.

Percent Distribution of Different Attributes for Accurate documentation of medication administered

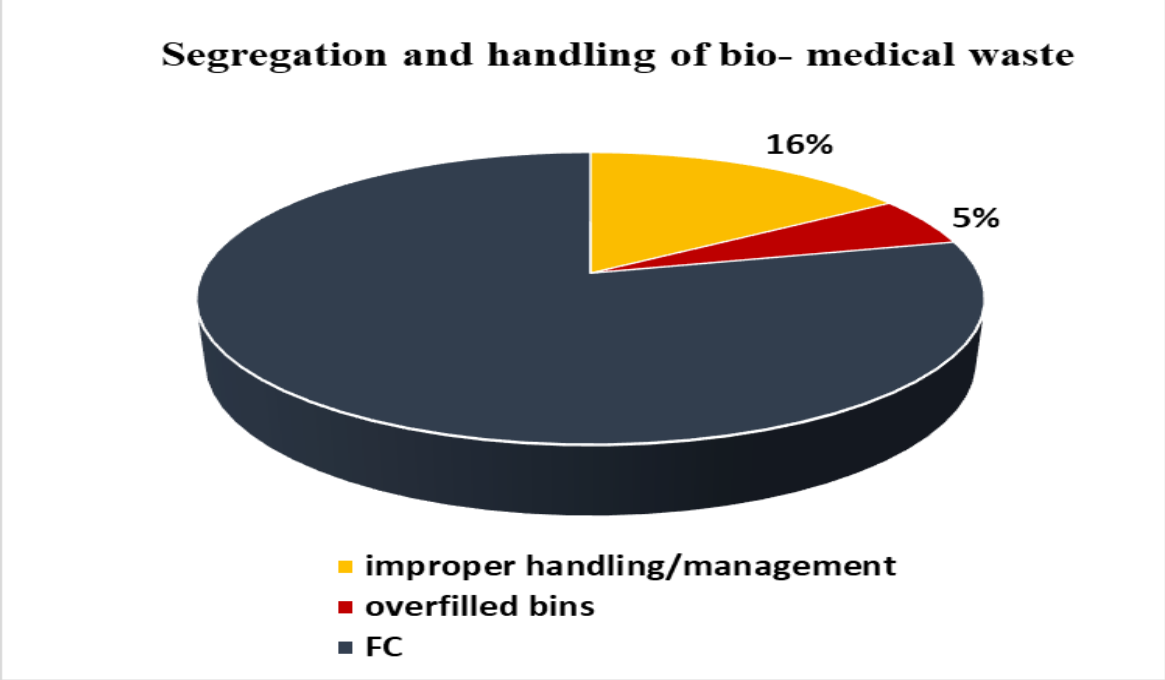


Reason : The attribute Documentation of drug in capital letter was showing partial compliance as compared to the rest of the attributes in this quality standard.

Standard 3: Segregation and Handling of Bio-Medical Waste

- Out of total 110 times audited, 23 times (21%) the observed parameter was showing partial compliance.

Percent Distribution of Segregation and Handling of Bio-Medical Waste in Emergency Department



❖ During the audit 17 times (16%) improper handling/management and 6 times (5%) overfilling of bins have been observed.

PARAMETER	SAMPLE	PC Percentage
IMPROPER HANDLING/MANAGEMENT	17	16%
OVERFILLED BINS	6	5%

Pictures Showing Improper Management of BMW in Emergency Department

- Improper management of discarded material as the pieces of swab, glove and some plastic material were lying on the floor, near the bins.
- Bins were overfilled in few of the cases

BMW Bins Displaying Unreadable Stickers

- Essential poster (e.g. bio-medical waste segregation) was missing at its appropriate place.
- Stickers displayed on the bins were unreadable as shown in the above Figure

Standard 4: Documentation of Nursing Plan of Care

❖Out of total 110 patients' files audited, the nursing plan of care in 19 files (17%) were not accurately done and was showing non-compliance

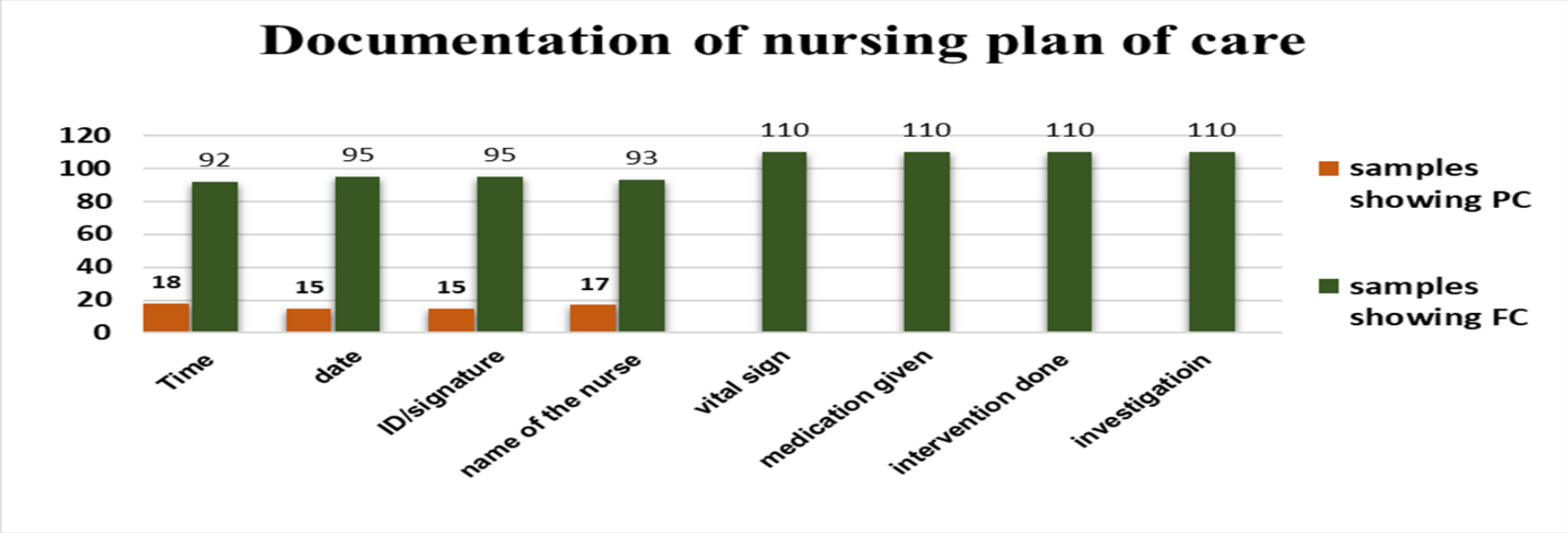
Reasons for partial compliance

❖Nursing assessment form was partially filled

❖Time ,date, sign/ID and name of the nurse were missing in few samples as per the policy of the department of the hospital as well as NABH guidelines.

❖Progress reports of nursing plan of care were missing in some cases

Compliance level of different attributes of documentation of Nursing plan of care



REASON: The attributes like time, date, name of the nurse on duty and signature/registration id no. of the nurse were showing partial compliance as compared to the rest of the attributes in this quality standard.

BESIDE ABOVE MENTIONED OBSERVATIONS, SOME OTHER RELEVANT ASPECTS

1. Admission refusal in emergency department

- ❖ Packages/services to be availed are not included in the Health Insurance Coverage.
- ❖ The service delivered/received is not as per expectation.
- ❖ The patient faces an affordability issues for availing admission to hospital.
- ❖ The primary consultants whom the patient seek for medical consultation are not available in the hospital presently.

2. Though the Patient Triaging Process of the Hospital was going as per NABH standards, but when there's

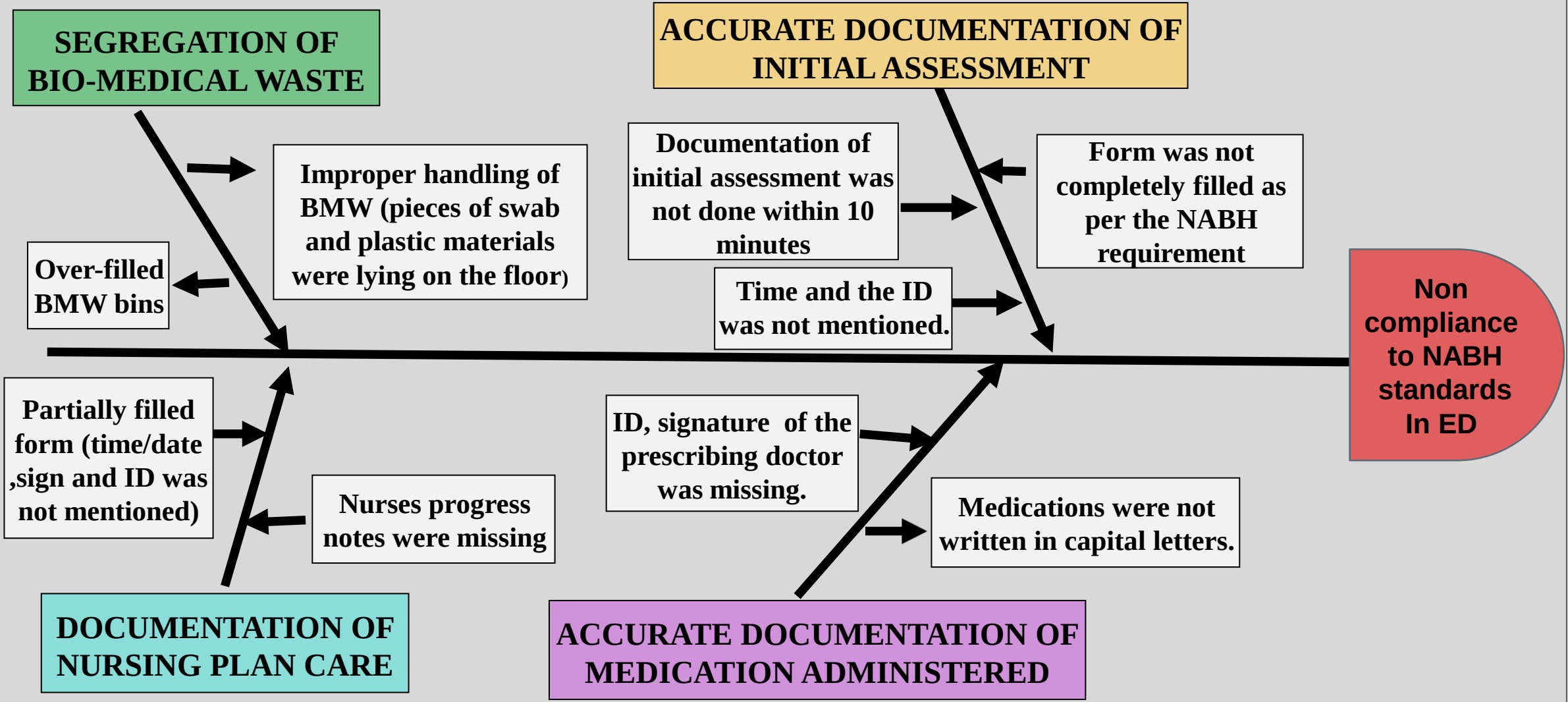
- change in the shift,
- somebody new joins the staff,
- due to the busy influx of patients

it is sometimes difficult to make sure the important information doesn't get lost in the shuffle.

Facilitating and Hindering Factors Observed

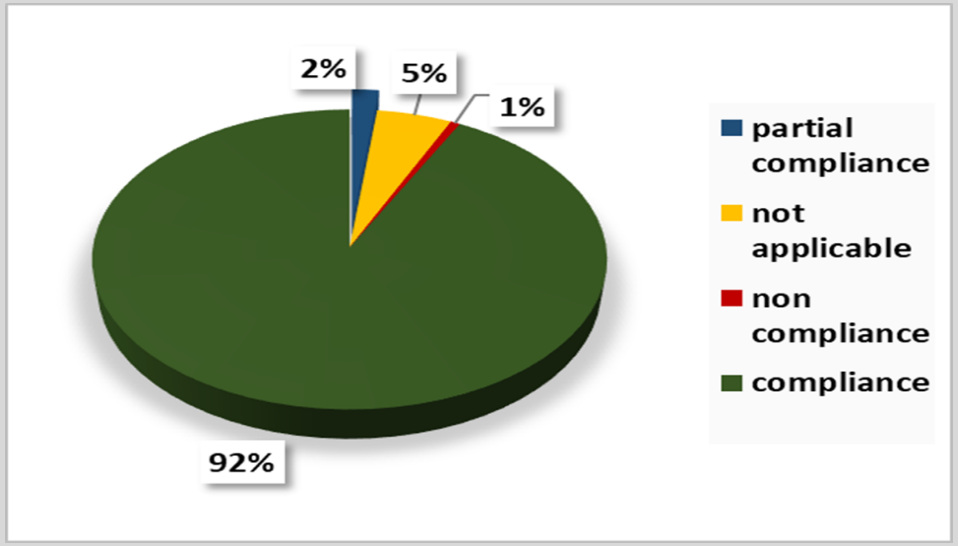
FACILITATING FACTORS	HINDERING FACTORS
• Pre-defined initial assessment as per the hospital policies	• Improper handling and management of Bio-Medical Waste
• Periodic monitoring of patient done during and after the procedure	• Incomplete documentation of nursing plan of care
• Adequate availability of PPEs, soaps and disinfectants	• Administered medicines were not written in capital letter
• Well displayed CPR protocols	• Incomplete documentation of the doctor's credentials
• Safe medication practices	• Turn around time policy for documentation of initial assessment was not followed
• Well drafted and functional disaster management plan of emergency department.	• Progress reports of nursing plan of care were missing in some cases
• Well-equipped crash cart	• Over filled BMW bins

Fish Bone Diagram Showing Root Cause and its Effect



Discussion

- As per the study conducted, 92% compliance was observed in the quality parameters of ED as per the defined policies of the hospital.
- Root cause of the identified problems remains the same in most of the tertiary care hospitals.
- As per the NABH standards, 70% compliance ideally represents good quality health care and thereby meeting the eligibility criteria for accreditation.
- The remaining 8 % non-compliance should also be taken into consideration while making the changes so as to maintain continuous quality assurance and excellence.



CONCLUSION

- This study reveals that the quality assessment guidelines of the hospital were well documented but not fully implemented.
- It was also found that there were some facilitating and hindering factors which were observed during the period of study which can be altered and minimized to a great extent by following the documented quality standards of the hospital.

EMERGENCY INTERNAL AUDIT TOOL KIT

NABH REFERENCE	Audit Point
FMS 2	Signposting and directional signages (bilingual) from approach road
FMS 2	Easy and direct access of emergency department from the approach road/main gate
HIC 5	Availability of PPEs, soaps and disinfectants; and their correct use
ROM	Displayed rights and responsibility of organization's employee
HIC 7	Re-use of instruments and equipment
HIC 8	Segregation of bio-medical waste
COP 7	Monitoring of Patients done during and after the procedure

AAC 13	Documented Discharge summary for LAMA patient
COP 2	Discharge note given during the discharge of pt. or while reffering to another hospital
COP 4	Disaster management plan of emergency dept.
MOM 6	Accurate documentation of medication administered
COP 6	Documentation of Nursing plan of care
COP 2	Availability of adequate manpower
COP 7	Documentation of clinical procedures done
COP 2	Display and documentation of triage policy
AAC	Maintenance of necessary registers (admission-discharge-transfer, stock, laundry, adverse incident register etc.)
COP 7	Well equipped Crash cart (all life-saving drugs and equipment)

COP 4	Documented Disaster management plan
COP 2	Handling of MLC cases on arrival(including capturing identification marks and police intimation)
COP 2	Documented policy on "dead on arrival"
COP 2	Documentation of procedures/policies/protocols for emergency care
COP 5	Documented policies and procedures on uniform use of resuscitation
COP 5	Training in CPR - BLS/ ALS
COP 7	Adherence to standard precautions and asepsis
MOM 3	Storage condition, inventory, expiry dates of medication
HIC 2	Instructions for hand washing displayed near every hand washing area
HIC 2	Adherence to safe injection and infusion practices
HIC 5	Availability of hand hygiene facilities
COP 4	Mock drills of disaster management (at least twice a year)
HIC 2	availability of Sterilized sets: check expiry dates, storage conditions
COP 6	Documented policies and procedures for all activities of nursing services in emergency dept.
AAC 3	In case of transfer of patients: Check stability/transfer notes/ treatment summary.

AAC 2	Availability of defined no. of beds in emergency dept.
AAC 3	Documented policies and procedures on transfer-in /transfer-out of unstable patient/ transfer out of stable patients
AAC 3	Documented policies and procedures on transfer-in /transfer-out of unstable patient/ transfer out of stable patients
AAC 3	Predefined initial assessment
COP 7	Informed consent taken by the doctor before performing the procedure
AAC 3	Check identified staff responsible during transfer
MOM	Safe medication practices (things to check before administration, monitoring, verbal orders, administering high risk medicines etc.)
AAC 4	Time frame for doing and documenting initial assessment
MOM 7	Monitoring of patient after medication administration
AAC 12	Structured clinical handover by doctors and nurses after every shift

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- Emergency Department, Calderdale & Huddersfield NHS Foundation Trust, West Yorkshire https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5051606/ strategies to reduce the amount of time patients spend in the ED in order to improve patient flow and reduce crowding in the ED.


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