Analysis the Gaps in adopting quality system of NIMS MEDICAL COLLEGE AND HOSPITAL with reference to NABH standard

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ABSTRACT

Quality Management Systems and Accreditation are versatile tools to ensure equity in healthcare services and the meeting the increasing aspirations of people. Gap Analysis is a tool that helps an organization to compare its actual performance with expected/laid down standards. Gap analysis refers to a study where hospital compare the present policy, procedure, SOP's, infrastructure with defined laid down standards of accreditation body, National Accreditation Board for Hospitals (NABH). It reveals the areas of improvement in the existing service system. The Gap analysis of the hospital studied (name not disclosed) was carried out for NABH re-accreditation. A medical record enables healthcare professionals to plan and evaluate a patient's treatment and ensures continuity of care among multiple providers. With this background the current study was carried out in order to maintain complete medical records at the hospital. A descriptive cross-sectional and prospective study was carried out and 900 patient files were studied for audit study. Data was collected through observation, semi-structured interviews, and with Audit tool with a structured checklist. Secondary data was collected from Files of the in-patients in various departments of the hospital and Computerized Patient Record System (CPRS) of the hospital. The observations of gap-analysis revealed that major non-compliance was due to lack of documented procedures and policies. The observations of audit study revealed that there was more than 90% compliance in pre-operative investigations, blood transfusion notes, venous thromboembolism (VTE) Assessment, while lesser compliance was observed in Referral consults, Pre-operative, Operative, Post-operative Notes, Face sheet, admission request, Doctor's progress notes, Informed consent, Anaesthesia records etc. It was recommended that Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS) training should be given to all the staff, Medication stock should be evaluated in every shift by the nursing team leader, Essential Posters like Material Safety Data Sheet (MSDS) should be placed at appropriate places, appropriate signage should be displayed, doctors need to be sensitized regarding complete filling of informed consents, Nursing needs to be trained for mandatory pain assessment, etc.

Keyword: - *National Accreditation Board for Hospitals (NABH), Gap Analysis, Medical Record Department (MRD), Continual Quality Improvement (CQI)*

1. INTRODUCTION

Quality Management Systems and Accreditation are versatile tools to ensure equity in healthcare services and the meeting the increasing aspirations of people. Optimum/ideal state of patient care can be achieved by the healthcare institution that focuses on compliance with accreditation standards of NABH and like bodies. Gap Analysis is a tool that helps an organization to compare its actual performance with expected/laid down standards. Gap analysis refers to a study where hospital compare the present policy, procedure, SOP"s, infrastructure with defined laid down standards of accreditation body, National Accreditation Board for Hospitals & Healthcare Providers (NABH). NABH accreditation system was established in 2006 as a constituent of Quality Council of India (QCI). The first edition of standards was released in 2006 and after that the standards has been revised every 3 years. Currently the

5th edition of NABH standards, released in February 2020 is in use. The NABH accreditation is currently a voluntary scheme but the QCI plans to cover all the hospitals in India, both, in the voluntary sector and the Government Hospitals. The advantage to the hospital would be its national recognition as a Quality Care hospital. The Health Insurance sector, various industries and Companies, National and International Funding Agencies, etc will subsequently utilize only these NABH accredited hospitals for their health needs.

Gap (or "needs") Analysis in the studied hospital was carried in 2023 for accreditation against 5th Edition of NABH. Document reviews, physical observation of the departments and informal interviews from the staff members were taken and various gaps were found. Gaps were intimated to the concerned persons of the departments along with their dates of closure. Various actions were taken to close the gaps with the help of findings and suggestions given by the study.

2. REVIEW OF LITERATURE

Few studies have been carrier out on gap analysis for NABH accreditation. Some of them, which were referred in the study are mentioned below:

A study entitled "Analysis of Health Record Documentation Process As Per The National Standards Of Accreditation with special emphasis on Quaternary Care Hospital" was done Dr.Nihar Prakash Kale,Mis Veena Singh, Mr Faizan Ali, Mr Sagar, Mr Abhishek , Mr Aadit, Miss Sarika, Miss Deepanshu. The aim of the study was to review the health records and evaluate them to find the incongruity in the documentation of patient"s data by doctors, nurses and other healthcare providers involved in the documentation process. The study was conducted in NIMS Medical College and Hospital in Jaipur. A total of 1400 patients files reviewed and primary data collected by checking the patient files at nursing stations, wards and critical areas. A documentation review audit tool was then prepared (as per objective elements mentioned by NABH) taking into consideration the important aspects of documentation in the health records. The files were checked as per the parameters mentioned in the audit tool. Possible suggestions and recommendations were also reported.

A study entitled Impact of Accreditation on the Quality of Healthcare Services: a Systematic Review of the Literature was done by Mr. Sijo Joy and Mr Nimesh Roy. The aim of this study was to evaluate the impact of accreditation programs on the quality of healthcare services. The study concluded that there is consistent evidence that shows that general accreditation programs improve the process of care provided by healthcare services.

After review of literature, it was concluded that for NABH accreditation, a self-assessment for identifying gaps should be done. The current study focusses on NABH gap analysis for a multi specialty hospital.

3. NEED/IMPORTANCE OF THE STUDY

Gap Analysis is a very extensive, major and important activity after the decision for going ahead with quality accreditation has been taken by the top management of a healthcare facility. Gap Analysis is a very powerful tool to kill the ambiguity in the decision of going ahead with quality accreditation as a lot of clarifications and objectivity in decision making is built in by this activity. The implementation of NABH standards is an excellent way to promote organizational development, sustaining and improving the culture of patient centered high quality care and patient safety. The ultimate beneficiary is the patient – as it results in improved patient satisfaction and clinical outcomes and consequent reduction in adverse events. The standards provide a basis for internal and external benchmarking and also provide direction for continuous upgrading of the levels. Compliance also reduces the risks of complaints, malpractice, organizational disrepute, and improves disaster preparedness. Staff benefits result with higher professional satisfaction,

team environment, improved confidence and professional reputation.

4. STATEMENT OF THE PROBLEM

What are the gaps and compliance of the hospital to 5th Edition NABH & Hospital Medical Quality Standards?

5. RESEARCH OBJECTIVES

The study was carried keeping in mind following objectives:

1. To evaluate Hospital‟s compliance to 4th Edition NABH & Hospital Medical Quality Standards. 2. To assess the gaps in the compliance.
3. To suggest methods for the closure of the gaps.

6. RESEARCH METHODOLOGY

Type of Study: Non-experimental, cross-sectional and observational (which is done in two parts i.e. present status of the department and compliance against NABH standards).
The departments of hospital which were studied included:

- Oncology Day-care Centre
- Front Office & Out Patient Department (OPD)
- Radiology Department
- In-patient (IP) and Out-patient (OP) pharmacy
- Emergency and ambulatory day care
- Laboratory and sample collection
- Nuclear medicine
- Food & Beverage (F&B), Dietetics
- Labor room, neonatal intensive care unit (NICU) and Nursery
- Cardiac Catheterization Laboratory (Cath Lab) & Critical Care Unit (CCU)
- Operation Theatre (OT)-1st Floor & OT 2nd Floor
- Medical Intensive Care Unit (MICU)
- Surgical Intensive Care Unit (SICU)
- Biomedical Engineering Department including Civil & Electrical Services
- Physiotherapy Department
- Medical Records Department (MRD) & IT Department
- Security
- Mortuary
- Blood Bank
- House keeping
- 2nd Floor Ward

Study respondents: Duty Doctors, Nurses, customer care staff and staff of the departments.
Sampling Technique: Random Sampling
Type of data – Both Quantitative & Qualitative data was collected.

Methods of data collection: Document Review, Physical Observation, Informal Interviews – semi-structured interviews (Duty Doctors Nurses, customer care in-charge, and Staff of the departments). **Instruments and Tools used**: Checklists of NABH standards.

7.0 RESULTS & DISCUSSION

Following tables mention the gaps/observations observed, responsible persons were identified for their closures and the required actions were taken for their closure.

7.1 Oncology Day Care

It offers specialized cancer care to patients requiring preventive, palliative and end of life care with Outpatient (OP) counselling sessions) & includes Radiation day care center. The gaps identified and action taken has been mentioned below in Table 1.

Table -1: Oncology Day-care Centre Gaps Identified and action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Medication for the patient is ordered before the preparation of the medication chart. There is a verbal order given which can cause medication errors.	The briefing was done to the junior doctors about the medication for the patient which is ordered before the preparation of the medication chart.
2.	Junior Resident present in the department is not BasicLife Support (BLS) trained.	BLS training was given to the Junior Residents.
3.	Expired patient medication was found in the Refrigerator of Admixing Lab.	The expired patient medication which were found in the refrigerator of Admixing Lab were Discarded.
4.	Material safety data sheet (MSDS) of Ravisol was not available in Brachytherapy (form of radiotherapy) Unit.	MSDS of Ravisol was available in the Brachytherapy Unit.
5.	Scope of Services was displayed only in English and not in the vernacular language.	Scope of services was updated in the vernacular language and standees were made for displaying the same in the department.
6.	Records of Discarded Lead Aprons in all departments were not available with the Radiation Safety Officer (RSO).	Proper Records of Discarded Lead Aprons in all departments are now available with the RSO.

7.2 Front Office & Out Patient Department (OPD)

Table -2: OPD and Front Office Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Display for the following was missing: Scope of Services of Hospital Scope of Services for paediatric patients Scope of High Risk Obstetric Patients. Vision, Mission and Values of Hospital All these need to be displayed in English as well as vernacular language.	Display of the scope of the services near the entrance was updated in English as well as in vernacular language.
2.	Hospital Directory needs to be updated.	The Hospital Directory was updated.
3.	Nutritional Screening was not done for OPD patients.	Nutritional Screening was done for OPD patients
4.	Patient Information Sheet and general consent on Patient Face Sheet to be available in Local Language.	Patient Information Sheet and General Consent on Face sheet is now available in Local Language.
5.	The records of pus swab culture were not properly maintained in dressing room.	The records of pus swab culture were properly maintained in dressing room.
6.	Patients were not transported safely in OPD, as manypatients were transported without safety belt.	Patients are being transported safely and safety belts were tied properly.
7.	Stretchers without locks on wheels and side rail wereidentified.	The stretcher which did not have the locks on wheels and those having no side rails were discontinued from use in transporting the patients.
7.	Consultants were not mentioning the next follow up date on OPD Prescriptions.	Consultants have started the practice of mentioning the next follow up date on OPD Prescription.
8.	Staff needs to be re-trained on Hospital Wide policies viz. policy for prevention of sexual harassment (POSH), Emergency Codes, Scope of services.	Staff was re-trained on Hospital Wide policies viz. POSH, Emergency Codes, Scope of services.
9.	Expired Medication was found in hypoglycaemia (low blood sugar) kit, 25 % Dextrose.	Expired Medication which was found in hypoglycaemia kit, 25%

		Dextrose was cleared from the kit.
10.	Old version documents of year 2007 were used in Treatment Room.	Old version documents of year 2007 used in Treatment Room were upgraded to the latest version.

7.3 Radiology Department

Table -3: Radiology Department Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Expired ETO (ethyline oxide) Biopsy Gun was foundin Ultrasound Room.	Expired ETO Item (Biopsy Gun) was removed from the ultrasound room.
2.	There were no proper records for testing the lead aprons and of discarded aprons.	The records for testing of lead aprons and the lead aprons which are discarded were maintained properly.

7.4 Outpatient (OP) Pharmacy

Table -4: Outpatient (OP) Pharmacy Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Documented policies for department like procurement, storage, drug formulary are not available in the department.	Documented policies were made available.
2.	Un-registered pharmacists were dispensing medicinesat night and were also signing the bills.	All the pharmacists were registered now who are dispensing medicines at night and signing the bills.
3.	Some discrepancies were observed in storage of High Alert Medications * : List of the drugs not available. No colour coding in Refrigerator. c) Chemotherapeutic Medications were not stored asper high-alert colour coding.	The discrepancies were removed: a) List of the drugs now available. b) High Alert Medicines were now colour coded in Refrigerator. c) Chemotherapeutic Medication now stored as per high alert colour coding.
4.	The camera at OP Pharmacy was facing only to the cash counter, it should also face towards medication storage, for taking measures for preventing	New cameras were installedwhich face all the areas.

	pilferage.	
* High-Alert Medications. High-alert medications are drugs that bear a heightened risk of causing significant patient harm when used in error. (Institute for Safe Medication Practices (ISMP))		

7.5 Inpatient (IP) Pharmacy * (Ward Pharmacy)

Table -5: Inpatient (IP) Pharmacy Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Bulk Stock was not labelled	Bulk Stock was labelled.
2.	Separate red-coloured bags for dispensing high alert medication was not used.	Separate Red coloured bags for dispensing high alert medication used.

7.6 Emergency (ER) Deptt.

Table -6: Emergency Deptt. Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Stretcher present in the ER was without locks. This	Stretcher present in the ER without
	could lead to fall of patients.	locks was discarded.
2.	Allergy Assessment (for adverse drug reaction) for not done for some patients.	Allergy Assessment for patient (150148822) was done later.
3.	Expired Ethylene Oxide (EtO) (for sterilisation - making free from bacteria) items, and Near Expiry medication was found in Refrigerator, Ambulance Bag and in Code Blue Bag.	Expired ETO Items and Near Expiry medication was found in Refrigerator, Ambulance Bag and Code Blue Bag.
4.	Clinical Pathways for various emergencies like Heart Attack (Myocardial Infarction), Gastrointestinal (GI) bleeding and Trauma to be framed and displayed in ER.	Clinical Pathways for various emergencies like Acute MI, GI Bleed and Trauma framed and displayed in ER.
5.	The nursing staff in ER was only Basic life support (BLS) trained and that too the training was imparted two years back.	The certified nursing staff was deputed in ER.

6.	Calibration and Preventive Maintenance (PM) stickers were missing on suction machine in resuscitation room.	Calibration and PM stickers were placed in suction machine in resuscitation room.
7.	Frequency for the checking of Disaster Cupboard needs to be defined.	Frequency for the checking of Disaster Cupboard is maintained.

7.7 Ambulance

Table -7: Ambulance Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Near Expiry medication was found in ambulance and also medication was not removed from ambulance after arrival.	Near Expiry medication found in the ambulance and medication was removed from ambulance after arrival.
2.	There was no defined list of medications kept for outsourced ambulances. It is done on need basis.	Defined list of medication was kept for outsourced ambulances.
3.	There is not much clarity to emergency staff regarding the ownership of the outsourced ambulances. Also expired medication were found in outsourced ambulances.	The ownership was with vendor but emergency staff of the hospital check it on regular basis.

7.8 Day Care

Table -8: Day Care Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	The list of procedures done in the observation room were required to be defined and displayed.	The list of procedures done in the observation room were defined and displayed.
2.	High Alert Medication was not stored properly in refrigerator.	High Alert Medication stored properly in refrigerator.

7.9 Nuclear Medicine

Table -9: Nuclear Medicine Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Reporting time for Routine or Emergency studies need to be defined in the department.	Reporting time for Routine or Emergency studies defined in the department.
2.	Nuclear Medicine manual was required to be updated.	Nuclear Medicine manual updated.
3.	The humidifiers in the department were found to fill with water since a week, which could be a source of infection if used.	The humidifiers in department were cleared which were filled with water since a week.
4.	There are discarded lead aprons lying in the department which needs to be disposed	Discarded lead aprons will be discarded according to the protocol and will be discarded soon.

7.10 Food & Beverages (F&B)

Table -10: Food & Beverages Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Records of surveillance cultures were not available inthe department.	Records of surveillance cultures are now available in the department.

7.11 Dietetics

Table -11: Dietetics Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Departmental Manual needs to be updated.	Departmental Manual updated.
2.	Counselling register should be maintained with patient‟s /relative‟s signature, for records.	Counselling register is now maintained with patient‟s / relative‟s signature for records.

3.	Patients were not being counselled for any food-drug interaction except for with Vitamin K. The list for food drug interactions need to be defined for the organization and patients to should be counselled for the same along with patient education pamphlets.	Patients are now being counselled for other food drug interaction along with Vitamin K. The list for food drug interactions is now defined for the organization and patients are counselled for the same along with patient education pamphlets.

7.12 Labour Room

Table -12: Labour Room Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Initial Medical Assessment of patients in Labour Room was not done. Junior Residents (JRs)/ Senior Residents (SRs) should complete the initial evaluation and documentation within 1 hr.	Initial Medical Assessment of patients in Labour Room was completed within the given time.
2.	Sharp container in Delivery Room was lying since a month.	Sharp container in Delivery Room was removed.

7.13 Neonatal Intensive Care Unit (NICU) and Nursery

Table -13: NICU and Nursery Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Staff needs to be trained on Neonatal Advanced Life Support (NALS) for the care of new-born infant.	Staff was trained on NALS.
2.	Neonates were administered Midazolam for sedation. It needs to be discussed and decided whether the consent has been taken and monitoring to be done for neonates for the same.	Only non-Ventilated Neonates are administered Midazolam for sedation decided and the consent is taken and monitoring is done for neonates for the same.

7.14 Surgical Intensive Care Unit (SICU) – 1

Table -14: SICU-1 Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Nursing staff to be Advanced Cardiac Life Support (ACLS) trained in ICU.	Nursing staff is ACLS trained in ICU
2.	Plan of care by doctor was not appropriately mentioned in ICU.	Plan of care by doctor is now appropriately mentioned in ICU
3.	ICU Chart had a column to monitor and record Sedation Score but it was not recorded by staff.	Sedation Score column is now being recorded and monitored in the ICU chart.

7.15 Old Surgical Intensive Care Unit (SICU)

Table -15: Old SICU Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Nursing staff to be Advanced Cardiac Life Support (ACLS) trained in ICU.	Nursing Staff is ACLS trained
2.	Narcotics (for relieving pain) register used in the department was obsolete and not updated.	Narcotics register being used in the department is now up to date.
3.	There was no consent taken for Cranioplasy (surgical repair of a defect or deformity of a skull) in one patient and for one patient consent was incomplete.	Consent for Cranioplasy in patient was taken. The consent for patient was completed.
4.	Staff needs to be trained on policies like Spill management, Nursing empowerment and restraint.	Staff is trained on policies like Spill management, Nursing empowerment and restraint.
5.	Material Safety Data Sheet (MSDS) for Ravisol is not available.	MSDS for Ravisol is now available.

7.16 Operation Theatre (OT)

Table -16: OT Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	The consents of Anaesthesia, Surgery, HIV and High Risk Consent in cardiac surgery were not signed.	The consents of Anaesthesia, Surgery , HIV and High Risk Consent in cardiac surgery were signed later.
2.	The sharp container in Theatre Sterile Supply Unit (TSSU) was overflowing and had a potential for sharp injury.	Briefing was done to housekeeping in regard to the sharp container in TSSU was overflowing which had a potential for sharp injury
3.	Material Safety Data Sheet (MSDS) of various hazardous material used in OT Store was not available.	MSDS of various hazardous material used in OT Store is now available.
4.	There was no distinction in usable and discarded leadaprons in OT. There was a possibility that even discarded ones are being used.	The distinction in usable and discarded lead aprons is now done in OT.
5.	Aldrete Scoring * to be displayed in Pre-Operative Area/ Post Operative Area.	Aldrete Scoring to is now displayed in Pre/ Post Op Area.
* Aldrete Score is a medical scoring system for the measurement of recovery after anesthesia (post anesthesia) which includes activity, respiration, consciousness, blood circulation and color.		

7.17 Medical Intensive Care Unit (MICU)

Table -17: MICU Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	There were no ID bands tied to few patients for their identification.	All the patients were tied with ID bands for their identification
2.	Nursing IP Assessment of patients transferred into ICU	Nursing IP Assessment of patients
	from ward is not being done.	transferred in to ICU from wardis now being done.
3.	Photocopy of Transfusion Adverse Reaction form was not present in patient‟s file where in details of blood transfusion are mentioned.	Photocopy of Transfusion Adverse Reaction form present. Never used to do, has now brought into practice.
4.	Events during cardiopulmonary resuscitation (CPR) were not recorded in CPR form, which could be for those patients in whom cardiac arrest occurred because of an unpleasant event.	Events during CPR are now being recorded in CPR form. This can be done only for those patients in whom cardiac arrest occurred because of an untoward event.
5.	Nurse was observed recapping the dirty needle, which should be avoided as the needle could pierce the cap and the finger.	Briefing to the nurse was done.
6.	All staff are not trained in Advanced Cardiac Life Support (ACLS).	All staff are ACLS trained
7.	Consents in MICU were inappropriately filled wherein, the name of procedure/name of person performing the procedure as well as patient specific risks were missing.	Consents in MICU are now appropriately filled wherein, the name of procedure/ name of person performing the procedure as well as patient specific risks are mentioned.
8.	Pain Score monitoring was missing in few patients.	Pain Score monitoring is now being done for all the patients.
9.	Material Safety Data Sheet (MSDS) was not available for Ravisol, acetone, Hydrogen peroxide.	Material Safety Data Sheet (MSDS) was available.
10.	The drug coding followed in MICU for infusions, should be displayed for staff awareness.	Drug coding displayed for staff awareness.

7.18 Ecoward (General Ward)

Table -18: Ecoward Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	The nursing assessment for the patients transferred inthe ward from ICU was not documented.	The nursing assessment for the patients transferred in the ward from ICU is properly documented.
2.	The general consent on face sheet of one patient was not signed.	The general consent on face sheet of patient was signed later.
3.	A specific format for nursing care plan to address needs of specific patients like prevention of bed sores,prevention Deep Vein Thrombosis (DVT) etc. shouldbe used in the ward.	The nursing staff is guided properly and specific nursing care plan is made according to the specific patient.
4.	Look Alike Sound Alike (LASA) medications were not segregated properly. Alprax Tablets (Alprazolam, a sedative, sleep inducing tablet, overdose could be fatal) were storedin the ward which is not allowed.	Look Alike drugs weresegregated properly.
5.	There are no blood transfusion notes or verification by doctor in case of transfusion.	It is stored when required, otherwise not.
6.	When and how to obtain urgent care was missing in discharge summary of patients.	Discharge summary of patients were updated.
7.	Material Safety Data Sheet (MSDS) for hydrogen peroxide was missing.	Blood transfusion notes were added later.

7.19 Cath Lab (Cardiovascular laboratory)

Table -19: Cath Lab Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Surgical hand-rub poster was missing on scrub station	Surgical Hand Rub poster is now there on scrub station.
2.	Staff should be made aware of radiation safety manual, and radiation protection in the cath lab mustbe a matter of primary concern.	Staff is now made aware on Cath Lab and Radiation Safety Manual.

3.	Turn Around Time for reporting of coronary angiography (CAG) was not defined in Cath Lab.	Turn Around Time for reportingof CAG defined in Cath Lab.
4.	There was lot of discarded material as well as storage material lying in the control room of Cath Lab, whichshould to be sorted and stored properly.	There was a lot of discarded material as well as storage material lying in the control unit of Cath Lab. This is now sorted and stored properly.

7.20 Coronary Care Unit (CCU) or Cardiac Intensive Care Unit (CICU)

Table -20: CCU Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	There were no blood transfusion notes or verificationby doctor in case of transfusion. Also, in consent it was not specified which product was transfused.	Pending
2.	The consent for coronary angiography (CAG) was not signed for one patient. Also, nursing assessment not documented in the same patient.	The consent for CAG was signed later for patient 150150423. Nursing IP Assessment was documented in the same patient.
3.	The consent form for „The Intra-Aortic Balloon Pump‟ or IABP, Central venous catheter or Central Line, Intubation (Insertion of an ET-endo-tracheal tube or breathing tube) and HIV was not signed by the doctor and also was not filled appropriately as person performing the procedure was missing.	The consent for IABP, Central Line, Intubation and HIV was signed by the doctor later and was filled as well.
4.	Doctors and Nurses in Coronary Care Unit (CCU) to be trained in Advanced Cardiac Life Support (ACLS).	Training in ACLS was imparted.
5.	Material Safety Data Sheet (MSDS) was not available for Diethyl ether (or simply ether).	MSDS made available.

7.21 Bio-Medical Engineering (BME)

Table -21: BME Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Audiometry test (test of hearing) to be conducted annually for the employees working in manifold room (area specifically designed to contain the medical gases) as a part of occupational health hazard.	Audiometry test has started conducting annually for the employees working in manifold room as a part of occupational health hazard.

7.22 Human Resources (HR)

Table -22: HR Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	X-ray chest reports as a part of health check at the time of admission are not available in some files.	X-Ray reports as a part of health check at the time of admission are available in all the files.
2.	Annual health check was not done for the staff who are 2 to 3 years old in the organization.	Annual health check is being done now for the staffs who are 2 to 3 years old in the organization.
3.	Format for Health check at the time of admission needs to be updated as electrocardiogram (EKG or ECG) and Mantoux test (screening tool for tuberculosis (TB)) were not done anymore.	Format for Health check up is up dated.

7.23 Operation Theatre (OT) 2nd Floor

Table -23: OT 2nd Floor Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Aldrete Score* sheet to be filled for the patients while shifting them out of recovery area to ward.	This practice has been started.
2.	Two types of Post-Acute Care (PAC) forms are used in OT.	Getting it changed and will be using one format.
* Aldrete Score is a medical scoring system for the measurement of recovery after anesthesia (post anesthesia) which includes activity, respiration, consciousness, blood circulation and color.		

7.24 Engineering & Maintenance

Table -24: Engineering & Maintenance Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Rubber Mats need to be provided in front of Electric Panel in Chiller Room.	Rubber Mats are provided in front of Electric Panel in Chiller Room.
2.	Lot of unwanted material was kept for temporary purpose in Chiller Room which could be a fire safety issue.	A lot of unwanted material kept for temporary purpose in Chiller Room which can be a fire safety issue.
3.	Audiometry test as a part of occupational health hazard should be done for the workers in chiller room and sewage treatment plant (STP) as these workers do not use ear plugs while working in these areas.	Audiometry test as a part of occupational health hazard is being done for the workers in chiller room and ear plugs have been provided to the workers working in chiller area.
4.	Safety Instructions in various areas of Engineering department should be translated in local language and should be displayed as most of the workers did not understand English.	Safety Instructions were translated in Punjabi and were displaced in various areas of Engineering department
5.	Fire equipment room‟s door was not accessible, as a lot of non functional beds and furniture was stored infront of it.	They are removed and the door is now accessible.
6.	The box for emergency key was fixed outside the door leading to terrace on 4th Floor, but there was no key in the box, hence it would not serve the purpose of putting the box for emergency key.	Key was kept inside the box.

7.25 Physiotherapy

Table -25: Physiotherapy Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	MoU with the hospital should be available with the in charge of the department.	MoU with Max Hospital is now be available in department with the In charge.
2.	The consent for physiotherapy procedures need to besigned by the patient and not by their relatives.	This Practice was started.
3.	Staff needs to be trained on BLS.	Staff is BLS trained.

7.26 Medical Records Department (MRD)

Table -26: MRD Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Turnaround-time (TAT) for retrieval of files from data/document warehouse needs to be defined in caseof emergency and routine requirement.	TAT for retrieval of files from Warehouse is now defined in case of emergency and routine requirement.
2.	WHEN TO OBTAIN URGENT CARE in discharge summary was missing in most files audited in Medical Records Department (MRD).	When to obtain urgent care in discharge summary is now there in all of the files which were audited in MRD.

7.27 Blood Bank

Table -27: Blood Bank Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Material Safety Data Sheet (MSDS) document shouldto be replaced with latest version.	MSDS document was updated to the latest version.
2.	There was no signature by the blood bank staff in request receiving register.	The Request Receiving Register
3.	Disposable Blood Collection Bags (Consumables) kept in Cartons were stored in Blood Bank on floors,which should be avoided. Blood Bags should be stored in the storage area of the blood bank.	is duly signed by the blood bank staff

7.28 House Keeping (HK)

Table -28: House Keeping Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Housekeeping SOPs (Standard Operating Procedure)need to be updated.	Housekeeping SOPs were updated.
2.	Infected linen was transported in blue or black bags as observed but should be in yellow bags as per hospital policy.	Briefing is done to the staff.
3.	There were lots of caps, masks and gloves found in OT linen and then these were mixed and thrown in one bag in the segregation area in laundry. These were later segregated as told by staff. This was not a correct practice.	Briefing was done.

7.29 2nd Floor Wards

Table -29: 2nd Floor Wards Gaps Identified and Action taken

S.No.	Observation Points (Gaps identified)	Action Taken
1.	Vulnerable patient * sign was in black colour instead of green as per policy.	Been replaced with green
2.	There was no signature by Junior Residents (JRs) in Ward medication Chart for few patients.	Ward medication Chart was signed by JRs later (150146761, 150048988).
3.	The monitoring for restraint patients was not done and also the nursing care plan did not mention anything about care of restraint patients.	The monitoring for restraint was done for patient and also the nursing care plan mentioned about care of restraint patient later(150146761).
4.	The generic informed consent for a surgery was incomplete as it did not mentioned the name of the surgery, name of the surgeon, diagnosis, etc.	The generic informed consent for a surgery was completed and the name of the surgery, name of the surgeon, diagnosis, etc. Was mentioned later. (150084890)
5.	Kidney Transplantation Investigation (KTP) sheet used	
	in Respiratory Intensive Care Unit (RICU) was without logo of the hospital.	used for KTP investigation in RICU and the provided attached sheet is being used now.
6.	Bar-code medication administration (BCMA) was not done before the patient was administered the medication.	Briefing is done
7.	Nursing staff was not aware of Nursing Manual.	They have been told and the briefing is done
8.	Discharge summaries used abbreviations such as BD (for bed time) and OD (for overdose) for patient‟s discharge medication.	Instead of abbreviations BD and OD which were written in Discharge summaries was replaced with the full forms of the same.
* Vulnerable patients is the one who is dependent for his activities of daily living and is at risk of injury to himself due to weakness and/or disability of any type. It includes the following categories of patient: The elderly (senior citizens), Babies and children, mentally challenged patients, physically challenged patients, Unconscious patients and Sedated patients.		

8. CONCLUSIONS

The hospital leadership should ensure that all deficiencies are addressed on priority. The VP Operations, Medical Superintendent, Quality Manager and Departmental Heads must ensure that they are familiar with the NABH & Hospital Medical Quality standards and the same should be thoroughly implemented. Advanced Cardiac Life Support (ACLS) and Basic life support (BLS) training should be given to all the staff. Essential Posters, like Material Safety Data Sheet (MSDS), should be placed at appropriate places. Appropriate signage should be displayed. Doctors need to be sensitized regarding complete filling of informed consents. Nursing needs to be trained for mandatory pain assessment. Trainings to be enhanced for nursing for management of vulnerable patients including marking on files. There should be appropriate documentation of surveillance mechanism, and special training sessions should be conducted for doctors and nurses regarding the importance of complete and effective documentation. The Quality Manager should work closely with all the departments to ensure they are provided with guidance and support, including trainings as required.

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