Comparison of NABH and AB-PMJAY Quality Standards for Accreditation in a Tertiary Care Medical hospital

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How to cite this article: Susmit Jain, Greenal Lodha. Comparison of NABH and AB-PMJAY Quality Standards for Accreditation in a Tertiary Care Medical hospital. Indian Journal of Public Health Research and Development 2023;14(1).

Abstract

Background: Quality Improvement (QI) is the organised approach to design and apply constant development in performance. QI in hospitals increase patient satisfaction, staff satisfaction as well as the quality of care provided by an organisation. In India quality of hospitals is assessed by different standards which primarily included those laid down by National Accreditation Board for Hospitals & Healthcare Providers (NABH), which were introduced in 2006 by Quality Council of India (QCI). In 2018, National Health Authority (NHA), introduced Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB – PMJAY) Quality Certification standards, in collaboration with Quality Council of India (QCI), for enhancing patient satisfaction and improving quality standards across the hospitals.

Objectives: The study was carried out with the objective to compare the AB-PMJAY Gold standard with NABH 5th Edition, and to identify challenges faced by hospitals for ensuring compliance to these standards.

Methods: The study design was descriptive cross sectional and was carried in a multi-specialty hospital in Rajasthan in 2022. The study was carried out with the objective to find out similarities and differences in AB-PMJAY and NABH standards. All the 5 chapters (Key Inputs, Clinical Service, Support Services, Patient Care, Health Outcomes) and 53 quality standards of AB-PMJAY were included in the study. Similarly, all the 10 chapters of NABH 5th Edition, including all 100 standards and objective elements were 651 were included in the study. The study was carried out in quality department of a hospital for preparing the hospital team for NABH and AB-PMJAY accreditation.

Results: It is found that AB-PMJAY broadly covers all the quality standards of NABH. Some of the challenges identified in implementation of NABH standards were that it requires more documentation, skilled staff, training need with skilled trainer/coordinator, and the NABH standards are very elaborative and descriptive. The challenges in implementation of AB-PMJAY Gold standards were that to achieve them, hospital have to make improvement in their structural, procedural, and clinical outcomes. The similarities of the standards were that both AB-PMJAY and NABH are constituent board of Quality Council of India (QCI), and both have common target of improving patient's safety and quality of care. The differences include that in more documentation is required

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in NABH in compared to AB-PMJAY, NABH requires skilled staff, it is more descriptive and elaborative, and hospitals require certified NABH co-ordinator for implement NABH standards. NABH comprises of indicators and AB-PMJAY says to do things. There are more financial resources required in implementation of NABH.

Conclusion: The hospital's with NABH's full accreditation can directly apply for AB-PMJAY Gold quality certification.

Key words: Quality Improvement, Patient Safety, National Accreditation Board for Hospitals & Healthcare Providers (NABH), Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB – PMJAY)

Introduction

Quality in healthcare has been defined by Institute of Medicine (IoM) as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes[1,2]. The domains of quality include patient experience, safety, effectiveness, efficiency, equity and timeliness[2]. Patient satisfaction is an important measure in assessing quality of healthcare provided by a hospital[3,4].

Quality Improvement (QI) is the organised approach to design and apply constant development in performance. QI includes setting standards, measuring quality and quality improvement[2]. QI in hospitals increase patient satisfaction, staff satisfaction as well as the quality of care provided by an organisation[5,6,7].

Accreditation is process to assess the quality, by external agency, to see whether the entity follows quality standards as laid by accreditation agency[8,9]. Accreditation provides achievable standards that help in improving quality of a organization[10].

In India quality of hospitals is assessed by different standards which primarily included those laid down by National Accreditation Board for Hospitals & Healthcare Providers (NABH), which is a constituent board of Quality Council of India (QCI)[11]. NABH standards were introduced in 2006[12] by QCI and currently fifth edition of the same was introduced in April 2020[13]. NABH standard focus on patient safety and quality of the delivery of services by the hospitals.

NABH standards are divided into 10 chapters viz. Access Assessment and Continuity of Care (AAC), Care of Patients (COP), Management of Medication (MOM)[14], Patient Rights and Education (PRE), Hospital Infection Control (HIC), Patient Safety and Quality Improvement (PSQ) earlier Continuous Quality Improvement (CQI), Responsibilities of Management (ROM), Facility Management and Safety (FMS), Human Resource Management (HRM) and Information Management System (IMS). In these 10 chapters, 5 are patient centered and 5 are healthcare organization management centered. In these chapters there are 100 standards, which are assessed by 651 objective elements[15].

Health has been fundamental human right as per WHO, hence Universal healthcare programs have been launched by Government of India[16]. Universal Health Coverage (UHC) ensures that all people have access to needed health services of sufficient quality without financial hardship[16]. In 2018, Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB – PMJAY) was introduced which provides health insurance coverage to economically weaker population of India. It provides health insurance to 10 crore households or 50 crore Indians an insurance coverage of Rs. 5 lac per family per year for medical treatment in private and public empanelled hospitals. AB-PMJAY is implemented by National Health Authority (NHA), which is autonomous organization under the control of the Ministry of Health and Family Welfare.

NHA introduced AB PMJAY Quality Certification standards, in collaboration with Quality Council of India (QCI), for enhancing patient satisfaction and improving quality standards across the hospitals. These standards are divided into three levels- Bronze, Silver, and Gold. The highest standard is Gold standard and to achieve this, healthcare organization need to improve the nature of care. AB-PMJAY standards are divided into 5 chapters- Key Inputs, Clinical Services, Support Services, Patient Care and Health Outcomes[17].

With this backdrop, the current study was carried out with the **objective** of comparing AB-PMJAY Gold standard with NABH 5th Edition, and to identify challenges faced by hospitals for ensuring compliance to these standards.

Materials and Methods

The study design was descriptive cross sectional and was carried in a multi-specialty hospital in Rajasthan in 2022. The study was carried out with the objective to find out similarities and differences in AB-PMJAY and NABH standards. All the 5 chapters (Key Inputs, Clinical Service, Support Services, Patient Care, Health Outcomes) and 53 quality standards of AB-PMJAY were included in the study. Similarly, all the 10 chapters of NABH 5th Edition, including all 100 standards and objective elements were 651 were included in the study. The study was carried out in quality department of a hospital for preparing the hospital team for NABH and AB-PMJAY accreditation.

Results and Discussion

The comparative analysis of each chapter of AB-PMJAY with NABH has been mentioned below in Figure 1-5.

COMPARATIVE ANALYSIS OF NABH AND AB-PMJAY

Comparative Analysis of Chapter 1, Key inputs of AB-PMJAY with NABH

Chapter-1 of AB-PMJAY quality certification deals with **Key Inputs (KI)**, there are 10 standards, naming KI 1 till KI 10. They were compared to NABH 5th Edition standard. This has been shown in Figure 1.

Chapter 1 - Key inputs (KI) of AB-PMJAY	NABH 5th Edition standard
KI 1	FMS 1, FMS 2
KI 2	COP 3 A
KI 3	FMS 1 B
KI 4	PSQ 2
KI 5	FMS 2
KI 6	HRM 9, HRM 10
KI 7	FMS 4A
KI 8	FMS 7
KI 9	COP 5
KI 10	HRM 3, HRM 4

Figure 1 Comparison of Chapter 1 - Key inputs of AB-PMJAY with NABH

KI 1 standard states that the Physical facility of the building and hospital environment shall be developed and maintained for safety of patient, visitors, and staff, could be compared with FMS 1, FMS 2 of NABH. FMS 1 states that the Organisation has a framework set up to give a sheltered and secure condition, and FMS 2 states that the organization's environment and facilities operate in a planned manner to ensure safety of patients, their families, staff and visitors and promote environment friendly measures. KI 2 states that there should be proper space for ambulance and movement of patient. It could be compared to COP 3 A of NABH standard which states there should be adequate access and space for the ambulance(s). KI 3 states that there should be no physical barriers for patients and the environment should be friendly for patients with disabilities. It could be compared to FMS 1 B of NABH which states that patient-safety devices & infrastructure are installed across the organisation and inspected periodically. KI 4 states that the indoor and outdoor areas of the facilities should be well-lit. It could be compared to PSQ 2 of NABH which states that the organization implements a structured quality improvement and continuous monitoring programme.

KI 5 states that basic amenities should be provided for all patients, hospital staff and visitor. It could be compared to FMS 2 of NABH which states that the organisation's environment and facilities operate in a planned manner to ensure safety of patients, their families, staff and visitors and promote environment friendly measures. KI 6 states that the hospital should ought to guarantee that all clinical staff is sufficiently accredited according to the legal standards. It could be compared to HRM 9, HRM 10 of NABH standard. HRM 9 states that process for Medical Professional permitted to provide patient care without supervision and HRM 10 states that there should be process for credentialing and privileging Nursing Professionals, permitted to provide patient care without supervision. KI 7 states that the facility has functional equipment & instruments as per the requirement of organization, whereas FMS 4A of NABH states that the organization should plan for utility and engineering equipment in accordance with its services and strategic plan. KI 8 states that fire detection and firefighting equipment should be installed as per fire safety norms along

with staff training, whereas FMS 7 of NABH states that the organization has plans for fire and non-fire emergencies within the facilities. KI 9 states that staff involved in direct patient care shall be trained in Cardio Pulmonary Resuscitation (CPR)and Basic Life Support (BLS) along with the display of the same in all critical areas whereas COP 5 of NABH states that documented strategies and systems should manage the consideration of patients requiring cardio-pulmonary resuscitation. KI 10 states that yearly preparing arrangement ought to be set up for all staff covering all preparation needs, could be compared to HRM 3 and HRM 4 of NABH. HRM 3 states that there is an on-going programme for professional training and development of the staff, whereas HRM 4 states that staff are adequately trained on various safety-related aspects.

Comparative Analysis of Chapter 2, Clinical Services (CS) of AB-PMJAY with NABH

Chapter-2 of AB-PMJAY quality certification deals with **Clinical Services**, there are 11 standards, naming CS 1 till CS 11. They were compared to NABH standard which are mentioned in Figure 2.

Chapter 2 - Clinical Services (CS) of AB-PMJAY	NABH 5th Edition standard
CS 1	PRE 1
CS 2	AAC 6, AAC7, AAC8
CS 3	COP 8
CS 4	AAC 9, AAC 10, AAC 11
CS 5	COP 9
CS 6	COP 14
CS 7	MOM 3
CS 8	MOM 6, MOM 8
CS 9	HIC, HIC 2
CS 10, 11	COP 13

Figure 2: Comparative Analysis of Chapter 2, Clinical Services of AB-PMJAY with NABH.

CS 1 states that patients privacy should be maintained in Out Patient Department (OPD) and In-Patient Department (IPD). It could be compared to PRE 1 of NABH which states that the organisation protects and promotes patient and family rights and informs them about their responsibilities during care. CS 2 states that the Lab diagnostic services, whether in house or outsourced, should be as per the scope of services. It could be compared to AAC 6, AAC7 and AAC8 of NABH. AAC 6 states that Laboratory services are provided as per the scope of services of the organisation, AAC 7 states that there is an established laboratory quality assurance programme and AAC 8 states there is an established laboratory safety programme. CS 3 states that blood bank services if available shall be as per the statutory/ regulatory norms. It could be compared to COP 8 of NABH which states that transfusion of blood and blood components is done safely, and documented policies and procedures define rational use of blood and blood components. CS 4 states that the hospital should adhere to the Radiation safety precautions as per the regulatory norms. It could be compared to AAC 9, AAC 10 and AAC 11 of NABH. AAC 9 states that imaging services are provided as per the scope of services of the organisation, AAC 10 states that there is an established quality assurance programme for imaging services, and AAC 11 states that there should be an established safety program in Imaging services. CS 5 states that Intensive Care Unit (ICU) services should be available as per the scope of services along with the required Infrastructure and Manpower, whereas COP 9 of NABH states that the organisation provides care in intensive care and high dependency units in a systematic manner. CS 6 states that OT complex should be available as per the regulatory requirements, which could be compared to COP 14 of NABH which states that surgical services are provided in a consistent and safe manner. CS 7 and CS7 could be compared with MOM 3, MOM 6 and MOM 8 of NABH. CS 7 states that medicines that looks alike and sounds alike should be identified and kept separately to avoid any dispensing and administration errors. CS 8 states that policies and procedures for identification, self-dispensing and administration of all high-risk medicine should be documented and implemented. MOM3 of NABH states that documented policies and procedures guide the storage of medication, MOM 6 states that medications are dispensed in a safe manner, and MOM 8 states that patients are monitored after medication administration. CS 9 states that the facility has defined and established antibiotic

policy, which could be compared to HIC and HIC 2 of NABH. HIC states that the organization has an effective antimicrobial management programme through regularly updated antibiotic policy, and HIC 2 states that the organisation provides adequate and appropriate resources for infection prevention and control. CS 10 and CS 11 could be compared to COP 13 of NABH standard. CS 10 states that Pre-operative, Intra-operative and post-operative assessment should be done and documented by appropriately qualified staff in standardized format, and CS 11 states that Pre-Anaesthesia assessment, type of anaesthesia and post anaesthesia status should be documented. COP 13 of NABH states that anaesthesia services are provided in a consistent and safe manner.

Comparison of Chapter 3, Support Services (SS) of AB-PMJAY with NABH

Chapter-3 of AB-PMJAY quality certification deals with **Support Services**, there are 10 standards, naming SS 1 till SS 10. They were compared to NABH standard which are mentioned in Figure 3.

Chapter 3 – Support Services (SS) of AB-PMJAY	NABH 5th Edition standard
SS 1	HIC
SS 2	FMS 4
SS 3	FMS 2 d
SS 4	FMS 2 e
SS 5	FMS 6
SS 6	ROM 3 c
SS 7	HIC 1,HIC 1a,HIC 2, HIC 2d
SS 8	HIC 4d
SS 9	HIC 4e, 4c, 4f, HIC 7, COP 2, COP 3
SS 10	HRM 8

Figure 3- Comparison of Chapter 3, Support Services of AB-PMJAY with NABH.

The first standard SS 1, in chapter three, support services, states that Hospital should be clean and have well managed flooring, which could be compared with HIC of NABH which deals with infection prevention and control and biomedical waste management. SS 2 states that temperature control and ventilation should be maintained in patient care and nursing area, which could be compared to FMS 4 of NABH which states that the organisation has a programme for the facility, engineering support services and utility system. SS 3, SS 4 could be compared with FMS 2 d and FMS 2 e. SS 3 states that the hospital should have an arrangement of water storage and should be tested periodically as per requirement. SS 4 states that the hospital should have 24 hours supply of electricity, either through direct supply or from other sources. FMS 2 d of NABH states that potable water and electricity are available round the clock, and FMS 2 e of NABH states that alternate sources for electricity and water are provided as backup for any failure / shortage. SS 5 states that medical gases and vacuum shall be made available all the time and sorted safely. Compressed air should be made available as per requirement. It could be compared to FMS 6 of NABH which states that the organisation has a programme for medical gases, vacuum and compressed air. SS 6 states that the facility should adhere to the practices specified under statutory compliances as per the scope of services - Licenses with Certificate number, date of issue and date of expiry, which could be compared with ROM 3 c of NABH which states that the leader is responsible for and complies with the laid-down and applicable legislations, regulations and notifications. SS 7 could be compared with HIC 1,HIC 1a, HIC 2, HIC 2d of NABH. SS 7 states that the hospital should ensure that appropriate Infection control practices are being followed along with hand hygiene practices. HIC 1 of NABH states that the organisation has a well-designed, comprehensive and coordinated Hospital Infection Prevention and Control (HIC) programme aimed at reducing/eliminating risks to patients, visitors and providers of care. HIC1a states that the hospital infection prevention and control programme is documented, which aims at preventing and reducing the risk of healthcare associated infections in the hospital. HIC 2 states that the organisation provides adequate and appropriate resources for infection prevention and control. HIC 2d states that adequate and appropriate facilities for hand hygiene in all patient-care areas are accessible to healthcare providers. SS 8 could be compared to HIC 4d of NABH. SS 8 states that hospital should ensure Bio-medical waste management practices as per the statutory norms (BMW amendment rules 2018). HIC 4d states that Biomedical waste (BMW)

is handled appropriately and safely. SS 9 could be compared with HIC 4e, HIC 4c, HIC 4f and HIC 7, COP 2 and COP 3 of NABH. SS 9 states that Hospital should ensure that services i.e. (Laundry, Housekeeping, Dietary, security, Ambulance, Mortuary, Central Sterile Supply Department (CSSD) etc. are available (in-house or outsourced). HIC.4e states that the organisation adheres to laundry and linen management processes, HIC.4c states that the organisation adheres to housekeeping procedures, HIC.4f states that the organisation adheres to kitchen sanitation and food-handling issues, COP 2 states that emergency services are provided in accordance with written guidance, applicable laws and regulations, COP 3 states that ambulance services ensure safe patient transportation with appropriate care, and HIC 7 which states that infection prevention measures include sterilisation and/or disinfection of instruments, equipment and devices. SS 10 states that sexual abuse and grievance handling procedure should be available, whereas HRM 8 of NABH states that process for disciplinary and grievance handling is defined and implemented in the organisation.

Comparison of Chapter 4, Patient Care (PC) of AB-PMJAY with NABH

Chapter-4 of AB-PMJAY quality certification deals with patient care services, there are 11 standards, naming PC 1 till PC 11. They were compared to NABH standard which are mentioned in Figure 4.

Chapter 4 – Patient Care (PC) of AB-PMJAY	NABH 5th Edition standard
PC 1	AAC 1
PC 2	AAC 1d
PC 3	AAC.1. b
PC 4, PC 5	AAC.2
PC 6	AAC 3
PC 7	PRE 4
PC 8	PRE 6
PC 9	PRE 3
PC 10	MOM 4
PC 11	IMS 3, IMS 4

Figure 4 Comparative Analysis of Chapter 4, Patient Care of AB-PMJAY with NABH

The first standard SS 1, in chapter four, patient care, states that hospital should have uniform and user-friendly signage system in English and in the local language understood by Patient / family and community. This could be compared with AAC 1 of NABH which states that the organization defines and displays the healthcare services that it provides. PC 2 states that all signage's those are required by law should be displayed at all strategic locations, whereas AAC 1d states that the organization defined healthcare services are prominently displayed. PC 3 states that contact information of key medical staff and specialist should be readily available in the emergency department, which could be compared to AAC.1. b which states that each defined healthcare service should have diagnostic and treatment services with suitably qualified personnel who provide out-patient, in-patient and emergency cover. PC 4 states that service counters for the enquiry are available as per the patient load and are duly managed by hospital staff for the registration of patients, PC 5 states that hospitals should have established procedure for admission on patients which could be compared to AAC 2 of NABH which states that the organisation has a well-defined registration and admission process. PC 6 states that referral of patients to another facility along with the documented medical information, in case of non-availability of services and/or beds which could be compared to AAC 3 which states that there should be an appropriate mechanism for transfer (in and out) or referral of patients. PC 7 states that general consent and Informed consent should be taken during the admission and before any procedure/surgery and Anaesthesia/Sedation, whereas PRE 4 of NABH states that informed consent is obtained from the patient or family about their care. PC 8 states that user charges are displayed and communicated to patients effectively at the time of registration, admission to the ward and in case of a change in medical and surgical plan, which could be compared to PRE 6 of NABH which states that patients and families have a right to information on expected costs. PC 9 states that patient should be properly educated on additional care as deem required and all the vital information should be recorded for continuity of care, whereas PRE 3 of NABH states that the patient and/or family members are educated to make informed decisions and are involved in the care planning and delivery

process. PC 10 states that hospitals should ensure that all medications and associated instruction are written in prescription whereas MOM 4 of NABH states that medications are prescribed safely and rationally. PC 11 states that medical record should be retained as per the policies of hospitals based on national and local law, which could be compared to IMS 3 and IMS 4 of NABH. IMS 3 states that the patients cared for by the organisation have a complete and accurate medical record. IMS 4 states that the medical record reflects continuity of care.

Comparison of Chapter 5, Health Outcomes (HO) of AB-PMJAY with NABH

Chapter-5 of AB-PMJAY quality certification deals with **Health Outcomes**, there are 11 standards, naming HO 1 till HO 11. They were compared to NABH standard which are mentioned in Figure 5.

Chapter 5 – Health Outcomes (HO) of AB-PMJAY	NABH 5th Edition standard
HO 1	
HO 2	
HO 3	PSQ3b
HO 4	PSQ3a
HO 5	PRE 7
HO 6	AAC 3
HO 7	
HO 8	PSQ3c
HO 9	PSQ3a
HO 10	FMS 3 , IMS.5
HO 11	PSQ3d

Figure 5 Comparative Analysis of Chapter 5, Health Outcomes of AB-PMJAY with NABH

HO 1 refers to recording Monthly Out Patient Department (OPD) and In-Patient Department (IPD) census, HO 2 refers to Mortality Rate and Average length of stay, HO 3 refers to measuring Infection Rates - Surgical Site, Urinary Tract, Bloodstream, Ventilator Associated Pneumonia (VAP)/ Hospital Acquired Infection (HAI) which could be compared with PSQ3b of NABH which states that the organisation identifies and monitors the key indicators to oversee infection control activities. Also in NABH Key Performance Indicators, in annexure, include measuring Catheter associated Urinary tract infection rate, Ventilator associated Pneumonia rate, Central line – associated Blood stream infection rate, Surgical site infection rate. HO 4 refers to measuring transfusion reaction (if applicable) whereas PSQ3a of NABH refers to measuring percentage of transfusion reactions. HO 5 refers to bed occupancy, HO 6 refers to percentage of patient satisfaction, which can be compared with PRE 7 of NABH which states that the organisation has a mechanism to capture patient's feedback and to redress complaints, PRE 7 b states that the organisation has a mechanism to capture feedback from patients, which includes patient satisfaction. In NABH Key Performance Indicators in annexure, PSQ3c refers to measuring waiting time for out- patient consultation, PSQ4c which refers to waiting time for diagnostics. HO 7 refers to percentage of employee satisfaction, HO 8 refers to holding up time-OPD and release, HO 9 refers to reporting of adverse events, whereas in NABH Key Performance Indicators in annexure, PSQ3a refers to percentage of surgeries where the organisation's procedure to prevent adverse events like wrong site, wrong patient and wrong surgery. HO 1O refers to reporting of Thefts / Security related incidents, whereas FMS 3 of NABH states that the organisation's environment and facilities operate to ensure the safety of patients, their families, staff and visitors, and IMS 5 states that the organisation maintains confidentiality, integrity and security of records, data and information. HO 11 refers to reporting of Needle stick injuries, whereas ABH Key Performance Indicators in annexure, PSQ3d refers to Incidence of needle stick injuries /1000 in-patient days to be collected monthly.

Challenges, similarities, and differences between AB-PMJAY and NABH

The similarities of the standards were that both AB-PMJAY and NABH are constituent board of Quality Council of India (QCI), and both have common target of improving patient's safety and quality of care.

The differences include that in more documentation is required in NABH in compared to AB-PMJAY, NABH requires skilled staff, it is more descriptive and elaborative, and hospitals require

certified NABH co-ordinator for implement NABH standards.

The challenges identified in implementation of NABH standards were that it requires more documentation, skilled staff, training need with skilled trainer/coordinator, and the NABH standards are very elaborative and descriptive. The challenges in implementation of AB-PMJAY Gold standards were that to achieve them, hospital have to make improvement in their structural, procedural, and clinical outcomes.

Conclusion

It is concluded that AB-PMJAY broadly covers all the quality standards of NABH. From the comparative analysis of both AB-PMJAY and NABH it is also concluded that the scope of NABH is very wide and descriptive. NABH comprises of indicators and AB-PMJAY says to do things. There are more financial resources required in NABH and the quality budged need to be maintained and regularly updated. Many standards of AB-PMJAY standards are also covered in NABH. The hospital's with NABH's full accreditation can directly apply for AB-PMJAY Gold quality certification.

Ethical clearance- Due considerations of confidentiality and privacy of information has been undertaken in this study.

Source of funding- Self.

Conflict of Interest - Nil

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