



Quality Assessment of Endocrine Surgery Department in the In-patient Services using National Quality Assurance Standards in a Tertiary Care Hospital: An Observational Study

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ABSTRACT

Background: The National Quality Assurance Standards (NQAS) aim to enhance quality of the health facilities by aligning with global best practices along with addressing the specific needs of the healthcare system. Currently, NQAS applies to District Hospitals, CHCs, PHCs, Urban PHCs, and HWC-SCs. These above-mentioned standards help providers assess and improve their quality of care, with the possibility of certification.

Objectives: In the Endocrine Surgery Department of the Tertiary Care Hospital, the observational study was done to assess the compliance of the, In-Patient Department (IPD) with a customized NQAS checklist, including any recommendations for improvement.

Methodology: This observational study was conducted in the IPD of the Endocrine Surgery Department of a Tertiary Care Hospital in North India. All other departments from the hospital were excluded from the study. The Compliance for the study was evaluated by using a customized NQAS checklist, with a scoring toolkit (0, 1, 2) which was based on Observations (OB), Patient Interviews (PI), Staff Interviews (SI), and Record Reviews (RR). The scoring toolkit was as per NQAS guidelines.

Results: The NQAS compliance assessment within the IPD of the Endocrine Surgery Department focused on eight "Areas of Concern": Service Provision, Patient Rights, Inputs, Support Services, Clinical Care, Infection Control, Quality Management, and Outcomes. The overall compliance in results was found to be 84%. The highest compliance was in *Service Provision* (100%), while *Outcome* showed 0% compliance.

Conclusion: The IPD demonstrated varying levels of compliance across the eight NQAS areas. While several standards were fully compliant, others were partially or non-compliant, emphasizing the need for targeted quality improvement efforts.

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INTRODUCTION

The boon of science and technology has seeped deeply in healthcare. Leading growth have led to the genesis of various super-specialty streams both in the field of medicine and

surgery.¹ Developing society of today does not only focus on the curative aspect of healthcare but also desires an impeccable quality to it. Poor quality of healthcare can deter patients from utilizing available services.²

Quality in healthcare is closely linked to improved patient outcomes, higher organizational revenue, reduced marketing costs, and increased patient retention. It involves continuous, collaborative efforts among healthcare professionals and other stakeholders to improve system performance and patient health outcomes.³

Ensuring healthcare quality in a vast and diverse country like India is challenging. Several quality assurance programs—such as NABH, ISO 9001:2008, Family Friendly Hospital Initiatives, NQAS, Kayakalp, and LaQshya—serve as frameworks for maintaining standards. In 2013, the Ministry of Health and Family Welfare (MoHFW) introduced the National Quality Framework to standardize quality across public health facilities under the National Health Mission (NHM). NQAS also provides quality assurance guidelines for District Hospitals and one of the most integral parts of any hospital in, Inpatient Units.

The In-Patient Department (IPD) plays a critical role in diagnosis, treatment, and overall patient care. Its infrastructure and processes must ensure a safe, comfortable environment for patients, attendants, and staff.

The excellence of the IPD can make or break the hospital. Hence, it is imperative for hospitals to maintain their quality. Accreditation detailed the self-assessment process used by healthcare organizations to accurately assess the level of performance in relation to established standards and to improve ways to continuously improve.

Endocrinology and endocrine surgery are rapidly growing specialties in India, driven by expanded knowledge and increasing patient recognition.^{1,6} Adhering to NQAS guidelines is crucial for maintaining quality in such departments. This study evaluates the compliance of the Endocrine Surgery IPD with NQAS standards and identifies areas requiring improvement to enhance patient satisfaction and service delivery.

This study focuses on assessing the compliance of the In-patient Department in the Endocrine Surgery Department with National Quality Assessment Standards. It aims to evaluate all eight areas of concern along with identify areas for improvement, ultimately enhancing care and boosting patient satisfaction as well.

METHODOLOGY

Study Design and Setting

An observational study was conducted in the Endocrine Surgery IPD of a tertiary care hospital in North India. Only the selected department was included; all others were excluded.

Objectives

1. To evaluate the IPD services of the Endocrine Surgery

Department against NQAS standards.

2. To provide recommendations for improvement where necessary.

Areas of Concern

NQAS assesses eight critical areas:

1. Service Provision
2. Patient Rights
3. Inputs
4. Support Services
5. Clinical Care
6. Infection Control
7. Quality Management
8. Outcome

Data Collection Tools

A customized NQAS checklist was used, comprising:

- 56 Standards
- 166 Measurable Elements (MEs)
- 331 Checkpoints

Assessment Techniques included:

- a) Observation (OB)
- b) Patient Interview (PI)
- c) Staff Interview (SI)
- d) Record Review (RR)

Scoring Method

Each checkpoint was scored:

- 2 = Full Compliance
- 1 = Partial Compliance
- 0 = Non-Compliance

Data were recorded in a pre-designed Excel tool that automatically generated area-wise scores and graphical summaries.

Ethical Considerations: Ethical approval was obtained from the Institutional Ethics Committee (IEC Ref. No.: 1039/Ethics/2023). Informed consent was taken, and participant confidentiality was maintained. The NQAS documents considered for this study are IPD NQAS Version: NHSRC/3.0.

RESULT

NQAS audit was conducted in IPD of the Endocrine Surgery Department in a Tertiary Care Hospital which had 28 beds with day care facility. The conducted study was focused on eight areas of concern given by National Health System Resource Centre (NHSRC). These include

Service Provision, Patient Rights, Inputs, Support Services, Clinical Care, Infection Control, Quality Management, and Outcome. Each of above-mentioned areas was divided into numerous standards, which consist of multiple Measurable Elements (ME). Each Measurable Element (ME) had various checkpoints, and based on the scores from these checkpoints, a final scorecard for the department and facility was created. The overall compliance of In- Patient Department was found **84%** with the NQAS checklist. IPD scorecard and score for each area of concern has been shown below:

Figure 1: Scorecard for IPD of Endocrine Surgery Department.

In-Patient Department Score Card		
Area of Concern wise Score		In-Patient Department Score
A	Service Provision	100%
B	Patient Rights	84%
C	Inputs	93%
D	Support Services	88%
E	Clinical Services	96%
F	Infection Control	93%
G	Quality Management	31%
	Outcome	0%
		84%

i. Area of Concern-A: Service Provision – 100% Full Compliance

The overall full score was 100% for the concerned area. It was observed that the department provided curative service to patient and services provided were appropriate as per community needs.

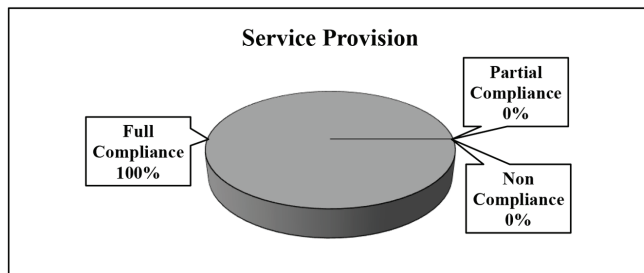


Figure 2: Compliance for Area of Concern 'A'

ii. Area of Concern B: Patient Rights – 84% Compliance

- **Full Compliance (82%):** Privacy, dignity, confidentiality, cultural sensitivity, and informed decision-making were adequately maintained.
- **Partial Compliance (5%):** Signages were only in English; grievance redressal mechanisms existed but were not displayed.
- **Non-Compliance (13%):**
 - No floor directory

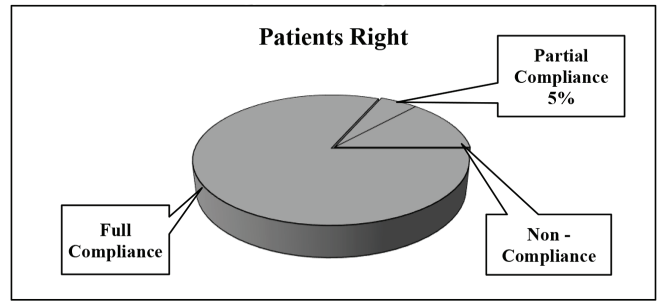


Figure 3: Compliance for Area of Concern 'B'

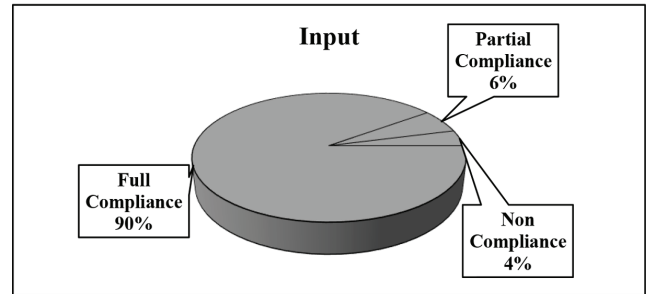


Figure 4: Compliance for Area of Concern 'C'

- No list of services or drugs
- User charges not displayed
- No accessible ramps with railing.

iii. Area of Concern C: Inputs – 93% Compliance

- **Full Compliance (90%):** Adequate infrastructure, trained staff, and essential drugs.
- **Partial Compliance (6%):** No functional intercom; skill assessment records missing.
- **Non-Compliance (4%):** Missing window grills/mesh, no security staff, no sterilization equipment, no annual competency assessments.

iv. Area of Concern-D: Support Services – 88% Compliance

Full Compliance (84%): Equipment maintenance, drug storage, facility upkeep, and basic utilities.

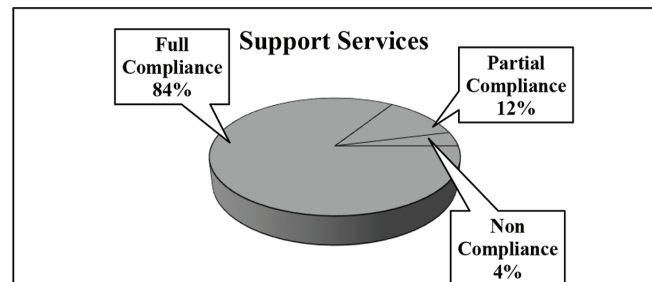


Figure 5: Compliance for Area of Concern 'D'

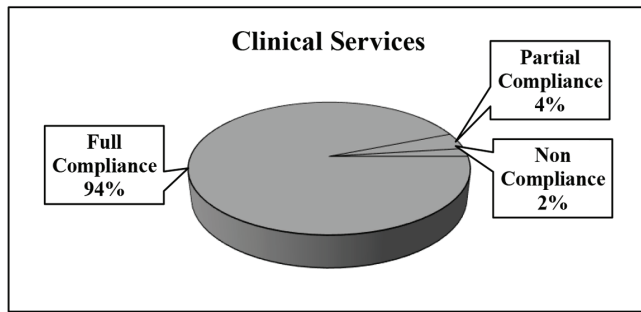


Figure 6: Compliance for Area of Concern 'E'

Partial Compliance (12%):

- a. No timely equipment repair system
- b. Overcrowding during visiting hours
- c. Rodent presence
- d. Dress code issues

Non-Compliance (4%): No records of near-expiry drugs; no security arrangements.

v. Area of Concern-E: Clinical Services – 96% Compliance

- **Full Compliance (94%):** Admissions, assessments, drug management, diagnostics, discharge, emergency services, and SOP compliance.
- **Partial Compliance (4%):** No provision for extra beds, registers not numbered, no departmental disaster plan.
- **Non-Compliance (2%):** No adverse drug reaction (ADR) reporting; roles for disaster management not defined.

vi. Area of Concern F: Infection Control – 96% Compliance

- **Full Compliance (92%):** Hand hygiene, PPE, biomedical waste management.
- **Partial Compliance (2%):** Staff medical check-ups infrequent.
- **Non-Compliance (6%):** Inadequate decontamination contact time.

vii. Area of Concern G: Compliance for Quality

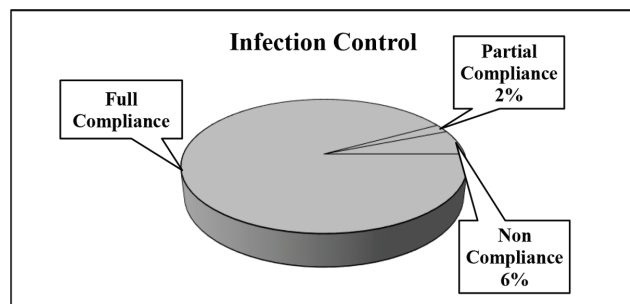


Figure 7: Compliance for Area of Concern 'F'

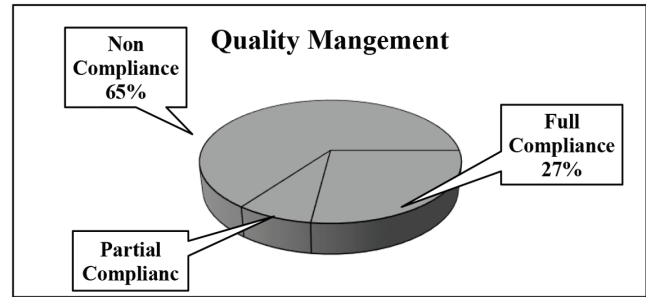


Figure 8: Compliance for Area of Concern 'G'

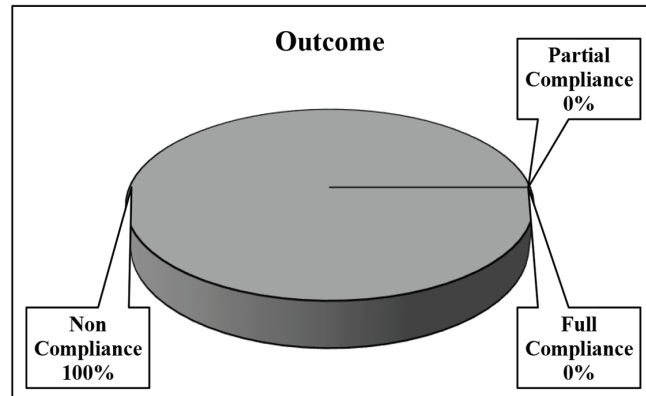


Figure 9: Compliance for Area of Concern 'H'

Management-31% Compliance

- **Full Compliance (27%):** Some QI activities, risk management, documented SOPs.
- **Partial Compliance (8%):** Inconsistent documentation of counselling, incomplete processes.
- **Non-Compliance (65%):**
 - a. No patient satisfaction surveys
 - b. No quality checklist
 - c. Staff unaware of SOPs
 - d. No internal assessments or audits
 - e. No corrective action plans
 - f. No quality indicators
 - g. No mission/vision awareness

viii. Area of Concern H: Outcome – 0% Compliance

No outcome indicators (clinical, productivity, efficiency, safety) were measured or benchmarked.

DISCUSSION

Globally, healthcare quality is gaining concern within the framework of the Sustainable Development Goals (SDGs). These goals aim to "achieve universal health coverage, including financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all". This focus

is prominently demonstrated in two reports published by the World Health Organization (WHO) in 2018: a handbook focused on developing national quality policies and strategies, and a collaborative guide by WHO, the OECD, and the World Bank that promotes a global understanding of quality in the context of universal health coverage.⁶

A.B. Fernandes *et al.* commenced a study, in a tertiary care hospital on Patients right which quoted, that the awareness about patient rights was showed high in most of the cases which included that the awareness levels among patients were reported as follows: 71% for the right to confidentiality, 67% for the right to grievance redressal, 65% for the right to be informed, 58% for the right to access healthcare, and 55% for the right to choose their care and participate in decision-making. However, awareness was notably lower only 39% regarding the patient’s right to informed consent.⁷

As per Indian Health Facility Guidelines IHFG guidelines, Inpatient unit safety and security play an important role in providing supportive atmosphere in providing recovery to patients.⁸

As per the (IHFG), at least 10% of the total In-patient Department (IPD) bed capacity should be designated as single bedrooms, which may also serve as isolation rooms for patients requiring overnight care. Additionally, the Standard Operating Procedures (SOP) under the Emergency Support Function – Public Health & Sanitation, Government of Uttar Pradesh (GoUP50, 2010), mandate that each hospital formulate a Disaster Management Plan (DMP). This plan should be supported by regular staff training and mock drills to ensure preparedness for potential disaster scenarios.⁹

John P. Burke in 2003, conducted a study on infection control in which it was found that hospital acquired infection are found to be most common complications which affects hospitalised patients.¹⁰

Mohan *et al.* quoted that there was a notable correlation between patient satisfaction and continuity of care, suggesting that patients who are satisfied with their care

are more likely to adhere to treatment plans and remain with the same healthcare providers. In 2011, Otani *et al.* in the USA identified that the nursing care was found to be most critical to enhance overall patient satisfaction in the relationship of nursing care, physician care and physical environment to the overall patient satisfaction, in the survey of 32 tertiary care hospitals.¹¹

A study by Shahnawaz Hamid *et al.*, evaluating patient satisfaction in the Inpatient Department (IPD) of a tertiary care hospital, it was found that patient satisfaction levels were above average.¹⁰

The study conducted on patient satisfaction by J Laishram *et al.*, in In-Patient department of a tertiary Hospital in Imphal West in Manipur, resulted that in whole, 96% of patients reported satisfaction by in-patient treatment. The most highly rated percentage with a score of 95.8% was from the consistent attention provided by doctors. Along with, the least satisfactory was the availability of prescribed medications, had only 37% of patients which were able to access all their required drugs directly from the hospital.¹²

CONCLUSION

The study comes out with 84% compliance of Endocrine Surgery Department in a Tertiary Crae Hospital of North India in which service provision which is area of concern from NQAS checklist got 100% compliances while on other hand outcome area is 0% non-compliance.

Recommendations

- i. A bespoke assessment tool for checklists should be developed, allowing it to be tailored to specific needs. It must be concise, relevant, and easily implementable. Fields that aren’t applicable in certain areas should be assessed accordingly.
- ii. Regular internal and external assessments should be conducted to enhance performance and drive better outcomes.

Action Plan					
Reference No	ME Statement	Remarks	Action	Level	Time Required

In the above context

Levels	Departmental Level: The identification of task with creating plan, assess it timeley and tracking of the progress.
	Administrative Level: Tasks that are not feasible to execute at the departmental level should be carried out at the administration level, with clearly defined goals, action steps, assigned responsibilities, timelines, and resource allocation.
Time Required	■ Short Term: The goals which will achieved in two months
	■ Mid Term: The goals which accomplished in two months to three years
	■ Long Term: The goals which takes time three or more years to achieve

- iii. Training for medical personnel, healthcare worker accreditation, healthcare facility certification, adherence to guidelines, checklists, and proper documentation, along with audits and relevant IEC materials, are essential.
- iv. Gaps at the administrative and departmental levels must be addressed, with solutions implemented in the short, medium, and long term.

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Conflicts of Interest: There are no conflicts of interest.

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