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Exploring Quality Management Practices Following the Implementation of National Quality Assurance Standards at a Community Health Centre in Budgam

Sameer Ul Haq[1*], Nisar Nabi Wani[2]

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ABSTRACT

Healthcare quality is an important aspect of an effective and sustainable health system. Sustaining quality after certification is essential and a long-term goal for public health facilities in India. This study examined quality management practices following NQAS implementation at a community health centre (CHC) in Budgam, assessed the quality of care provided and patient satisfaction level, and explored the organizational barriers in the implementation of NQAS at public health facilities. A hospital-based mixed-method study was conducted at one purposively selected CHC. The study assessed the quality management indicators in pre-certification period (June to September 2025) and post-certification period (June to September 2026). Quantitative data was collected using a structured questionnaire and from facility records. Qualitative data was obtained from key informant interviews conducted with the facility staff. The facility had an overall NQAS score of 89.4%. Compared with the pre-certification period, outpatient visits increased by 32%, ECG services by 24.7%, laboratory investigations by 3.2%, and X-ray services by 3.4% in post-certification period. The institutional deliveries increased from 80% to 92% after certification. The participation of staff in trainings increased from 67.6% to 98.3%, while as NQAS training coverage increased from 18.4% to 86.8% after the certification. About 70% of patients were fully satisfied with the quality of care and services received. The study found improvements in quality management practices, staff training coverage, and patient satisfaction following NQAS implementation. Sustaining these improvements will require regular committee reviews, effective implementation of the PDCA cycle, continuous staff training and capacity building, and addressing existing organizational barriers.

INTRODUCTION

Healthcare quality is a critical pillar of an effective and high-quality health system, as access to healthcare services alone does not improve health outcomes (World Health Organization, 2021). The quality of care determines the extent to which health services increase the likelihood of achieving desired health outcomes (Folland *et al.*, 2024). Quality healthcare includes dimensions such as effectiveness, safety, people-centredness, timeliness, equity, integration, and efficiency that necessitate evidence-based clinical practices, prevention of harm, respect for patient's rights, timely service delivery, and optimal utilization of available resources. Conversely, poor healthcare contributes to medical errors, patient dissatisfaction, and a greater burden on the healthcare system. Therefore, World Health Organization (WHO) stresses upon continuous improvement of quality rather than merely ensuring the availability of infrastructure, equipment, and human resource (WHO, 2018). In India, strengthening the quality of public healthcare services is essential for achieving universal health coverage and ensuring equitable access to safe and effective care. The poor quality of healthcare services exists in the form of unsafe treatment, missed diagnosis, disrespectful services often resulting in preventable deaths, financial burden and loss of trust in healthcare (Graban, 2018). Therefore, the Ministry of Health and Family Welfare (MoHFW), Government of India, introduced the National Quality Assurance Standards (NQAS) to establish a structured framework for assessing and improving the quality of services delivered through public health facilities (Kadam, 2021; NQAS, 2018).

NQAS provides standardized assessment criteria for different categories of public healthcare facilities, including district hospitals, community health centres (CHCs), primary health centres (PHCs) and sub-centres (SCs). The minimum standards are aligned with the global benchmarks defined by WHO and are in line with national requirements. Standards are further linked with well-defined assessment tools and all gaps are addressed through continual quality improvement methods and tools like PDCA, process improvement, 5S etc. The NQAS framework is organized into eight concerns which are service provision, patient rights, inputs, support services, clinical care, infection control, quality management, and outcomes. These areas assess the availability and organization of services, adherence to clinical standards, patient safety, infection prevention, institutional management, and measurable service outcomes (Awasthi, 2024; NHSRC, 2024).

Quality management following NQAS certification is particularly important because healthcare facilities operate

[1] Epidemiology & Public Health, Indian Institute of Public Health, Shillong, Meghalaya, India
[2] Research Scholar, Shri Venkateshwar University, Gajraula, U.P, India
[*] Corresponding author's e-mail: Drsameerulhaq234@gmail.com

in dynamic environments characterized by changing patient needs, staff turnover, resource constraints, and evolving clinical guidelines (Yadav, 2019). Sustaining quality requires regular internal assessments, periodic clinical audits, monitoring of quality indicators, staff training, documentation, patient feedback, and timely corrective and preventive actions. The Plan–Do–Check–Act (PDCA) cycle provides a systematic approach to identifying deficiencies, implementing corrective measures, evaluating their effectiveness, and standardizing successful practices. Furthermore, effective quality management promotes staff accountability, strengthens infection prevention, supports evidence-based clinical decision-making, and encourages a culture of patient safety and continuous organizational learning (Graban, 2018; MoHFW, 2021). Evaluating post-certification quality management practices can help determine whether established standards have been integrated into routine service delivery and institutional processes. Therefore, the present study examines quality management practices following NQAS implementation at a community health centre in Budgam, assesses the quality of care provided and patient satisfaction levels, and identifies operational and organization barriers in implementation of NQAS in public health facilities.

MATERIALS AND METHODS

Study Design and Setting

This was a hospital-based mixed-method study conducted at a Community Health Centre in Budgam district. The study assessed quality management indicators during the pre-certification period (June to September 2025) and the post-certification period (June to September 2026).

Study Population

The study included two participant groups. The first group involved facility staff, including medical officers, consultants, nurses, paramedics and program managers who participated in Key Informant Interviews (KIIs). The second group consisted of patients who were included in the assessment of quality of care and patient satisfaction.

Sampling Technique and Sample Size

We used a purposive sampling technique to select the CHC due to its relevance to the NQAS certification status. We purposively selected 10 participants for KIIs based on their involvement in service delivery and quality management activities at the facility. For assessing the quality of care and patient satisfaction, 50 participants were selected purposively.

Data Collection

Data were collected using a structured quality management assessment checklist. The checklist covered quality governance, internal assessment, quality gap identification, corrective action mechanisms, quality indicator monitoring, documentation, staff training, communication, and post-certification follow-up. Facility records from the pre-certification and post-certification periods were compared to identify the changes in quality management practices. Quality of care and patient satisfaction were assessed using a structured questionnaire covering aspects such as availability of information, waiting time, staff behavior, cleanliness of surroundings, wards, washrooms, and toilets, attitude of doctors and staff, patient examination and counselling, and overall quality of services received. KIIs were conducted using a structured questionnaire on knowledge and awareness of NQAS, involvement in quality management activities, and barriers to maintaining quality standards.

Statistical Analysis

The collected data were analyzed using Stata Statistical Software version 16 (StataCorp LLC, College Station, Texas, USA). Quantitative findings were summarized using frequencies and percentages. Descriptive comparisons were made between the pre-certification and post-certification periods. Qualitative data from KIIs, was analyzed thematically to identify recurring barriers, facilitators, and opportunities for strengthening quality management practices.

RESULTS AND DISCUSSION

Facility Characteristics, Service Delivery and NQAS Performance

The study was conducted at a CHC in Budgam which received NQAS certification in 2025. Of 295 sanctioned

Table 1: Profile of the facility

Characteristic	Finding
Facility type	Community Health Centre
Location	Urban
Sanctioned beds	30
Functional beds	30
NQAS assessment score	89.4%
Water supply, electricity, toilets, cleanliness	Available
Biomedical waste facilities, fire safety	Available
Emergency services, equipment availability and functionality	Available
Maintenance arrangements, infection-control infrastructure	Available



Fig 1. NQAS Assessment Performance

Figure 1: NQAS Assessment Performance

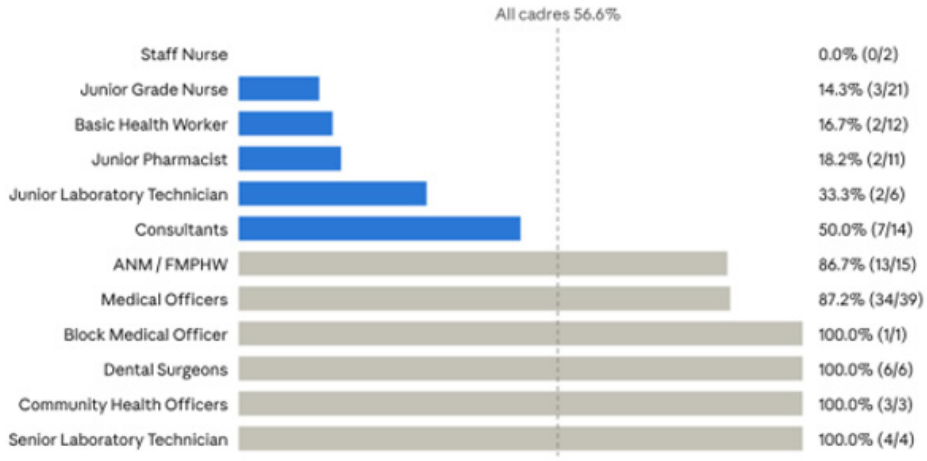


Figure 2: Status of Staff of the facility

posts, 43.4% of posts were vacant with the largest gaps among nurses, and pharmacists. A comparative assessment of service utilization was conducted between pre-certification period (June-September 2025) and post-certification period (June-September 2026). Outpatient visits increased by 32%. Laboratory investigations, X-ray, ECG showed increase of 3.2%, 3.4%, and 24.7% respectively during the same period. In contrast, C-sections increased from 16% to 30%, and institutional deliveries increased from 80% to 92% during the same assessment period. The overall quality score was 89.4%. Basic institutional facilities such as water supply, electricity, toilets, hygiene, biomedical waste management, fire safety, emergency services, equipment availability and functionality, and infection control were available. Facility characteristics, NQAS performance, and staff status are shown in Table 1, Fig. 1 and Fig. 2 respectively.

Quality Management Practices

Governance and Administration

No quality management committee was in place before NQAS certification. The committee was constituted in 2025 and conducted 29 meetings until the post-certification period. A total of 58 action points were reviewed and resolved at subsequent meetings.

Internal assessment

We observed the number of internal assessments doubled (from 4 to 8) in the post certification period. All the assessments conducted used a checklist and documented findings. The review of assessments by the committee was conducted for all the assessments after certification period with no reviews conducted before certification.

Gap identification and management

The proportion of identified gaps increased from 46.6% to 88.6%. The proportion of priority gaps increased from 37.5% to 66%. The percentage of gaps discussed in committee meetings increased from 18.5% to 66%.

Corrective and preventive action

Our study observed that no documentation was in place for corrective action before certification. After inclusion, the corrective and preventive action rate increased by 5.3%. This reflected that the PDCA cycle was not fully implemented in the routine practices at the facility.

Quality indicator monitoring

There was no documented list of quality indicators before certification. The number of indicators for monitoring were eight in both the assessment periods. The number of review sessions increased from 50% to 77.8%. The percentage of below-target indicators requiring action decreased by 15% with 100% having a documented action plan in post-certification phase.

Staff training

Our study found that a quality management training plan was available in both periods. Scheduled training sessions increased from 4% to 16%, and all scheduled sessions were conducted in both periods. The proportion of staff who participated in training increased from 67.6% to 98.3%. Staff receiving NQAS training increased from 18.4% to 86.8%.

Post-certification follow-up

Out of twelve post-certification follow-up items, about 83.3% were recorded as present in the post-certification period. After certification, quality management activities were documented, routine internal assessments and committee meetings continued, quality indicators were reviewed, activities were incorporated into a routine work plan, and responsibility for ongoing quality management was formally assigned.

Assessment of the Quality of Care provided in the facility

About 70% of the patients were fully satisfied with the quality of care and services received in the facility, while 30% found them good. 62% were fully satisfied with patient examination and counselling. 54% were satisfied with the promptness of doctors and staff in treatment and care. 62% were fully satisfied with cleanliness of surroundings, followed by cleanliness of washrooms and toilets (60%) and cleanliness of wards (54%). 52% were fully satisfied with the availability of information at the registration counter, while 48% found it good. 52% were satisfied with the waiting time at the registration counter, while 40% found it good, and 8% found it poor. For doctor-patient interaction, 56% were satisfied with the attitude and communication of doctors, 40% found it good, and 4% found it poor.

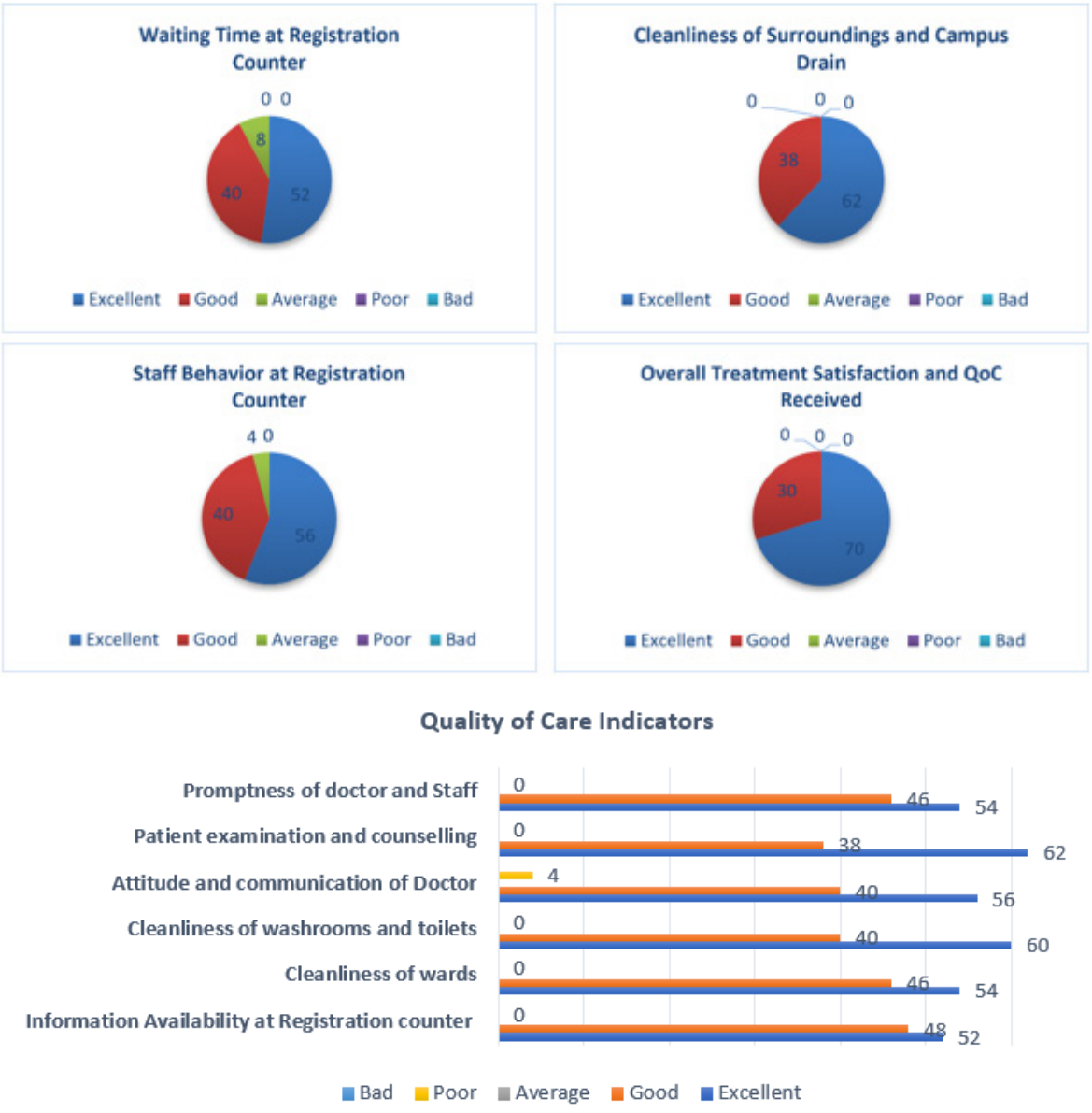


Figure 3: Assessment of Quality of Care Provided at the Facility

Patient Satisfaction Score

The patient satisfaction score increased from 3.20 (n=50) before the certification period to 4.56 (n=50) after the certification period. The mean score across all attributes was 4.54 (SD 0.54). Mean attribute scores ranged from 4.44 (waiting time at the registration counter) to 4.62 (cleanliness of surroundings).

Table 2: Patient satisfaction score (n=50)

Attribute	Mean	SD
Sufficient information at registration/admission counter	4.52	0.51
Waiting time at registration/admission counter	4.44	0.63
Behaviour of staff at registration/admission counter	4.52	0.57
Cleanliness of wards	4.54	0.51
Cleanliness of washrooms and toilets	4.60	0.50
Cleanliness of surroundings and campus drain	4.62	0.50
Regularity of CHO	4.54	0.51
Attitude and communication of CHO	4.48	0.68
Time spent on examination and counselling	4.62	0.50
Promptness of doctor and staff	4.54	0.51
Overall satisfaction with treatment	4.56	0.51

Assessment of knowledge regarding NQAS and awareness of quality indicators

A total of 10 key informant interviews were conducted during the period. All the participants had received training, and reported participation in quality-improvement activities and internal assessments, and adherence to infection-control and documentation practices. Regarding knowledge of NQAS and awareness of quality indicators, 80% showed excellent knowledge, 10% good, 10% average, and 0% poor.

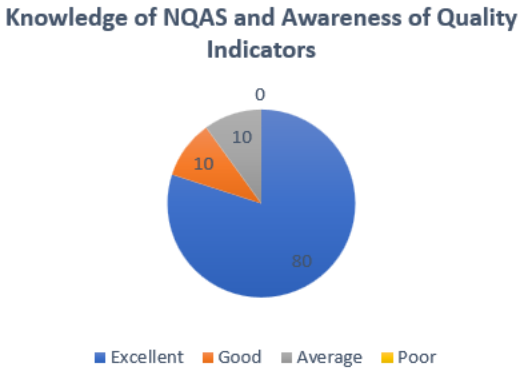


Figure 4: Knowledge of NQAS and Awareness of Quality Indicators

Operational and Organizational Barriers

The barriers identified are shown in Table 3. Interview respondents identified quality governance, proper leadership, administrative support, training and teamwork as challenges in NQAS implementation. Facility records showed that 43.4% of sanctioned posts were vacant. Interview respondents identified optimal staffing as critical for NQAS implementation. The respondents also highlighted that unresolved pre-certification gaps are not reviewed and resolved after obtaining certification.

Table 3: Operational and Organizational Barriers

Domain	Finding
Staff perspectives	Training and teamwork cited as challenges (2 of 10 respondents)
Human resources	128 of 295 sanctioned posts vacant (43.4%)
Corrective action	1 of 19 actions (5.3%) with a documented action plan post-certification
Follow-up	Unresolved pre-certification gaps not reviewed after certification
Documentation	7 of 12 SOPs (58.3%) reviewed and version-controlled post-certification
NQAS	Lowest scores: NBSU (78.66%), IPD (81.48%)

Discussion

This study examined quality management practices following the implementation of the NQAS at a community health centre in Budgam, with an overall NQAS score of 89.4%. The study observed positive changes after certification. The quality management indicators were more structured and better documented than in the pre-certification period, although few gaps were found during the post-certification phase. Quality governance showed a positive change with a greater focus on implementation of quality practices at the facility. The study observed that no quality management committee existed before certification. After the constitution of this committee, the issues and gaps discussed in the committee increased from 18.5% to 66% after certification. The periodic internal assessment on quality and service delivery had doubled from 40% to 80% in the post-certification period. The findings are consistent with a study that described management leadership and quality governance as critical aspects of quality systems in NABH-accredited hospitals (Babu & Thomas, 2020). It is also consistent with other study that reported better compliance with NQAS domains, including quality management in hospitals with better quality governance (Singh *et al.*, 2024). The findings are in line with the operational guidelines for NQAS as the basis of sustained quality (Awasthi, 2024). The percentage of identified gaps decreased to 62% after certification, which is comparable to the reporting of improved quality indicators after accreditation in tertiary hospitals in India. (Singh *et al.*, 2024). However, the corrective actions increased slightly by 5.3% with a documented action plan. This suggests that the "Check" and "Act" stages of the PDCA cycle are not yet fully incorporated in the routine practices. The reduction in percentage of gaps is due to the timely review and resolution, however, it also reflects less gap identification in some indicators as well. The training coverage after the certification improved substantially. The proportion of eligible staff for trainings increased from 67.6% to 98.3%, and for NQAS orientation from 18.4% to 86.8%. This indicates an improvement in staff knowledge, attitude and practices after NQAS implementation and is consistent with the findings of improved knowledge, attitude and practices after training orientation on NQAS at a peripheral health facility (Awasthi, 2024). The service delivery and patient-level indicators also showed significant progress. The outpatient visits increased by 32%, institutional deliveries from 80% to 92%, and mean patient satisfaction from 3.20 to 4.53 after certification. Overall, the findings of this study suggest that the implementation of NQAS was accompanied by stronger governance, monitoring, and training at this facility.

Limitations of the Study

This study has several limitations. It was conducted at a single, purposively selected CHC, so the findings cannot be generalised to other facilities. The pre-certification and post-certification comparison relied on three months of service data for each period (June-September 2025 and June-September 2026), which may not reflect the actual and long-term variations. It cannot be stated with certainty that the changes are wholly attributable to NQAS implementation alone; other factors, such as other national programs and administrative changes, may also have contributed. Furthermore, the majority of the data was taken from the facility records, which may be incomplete or subject to documentation bias.

CONCLUSION

The study provides an overview of quality practices after implementation of NQAS at a CHC in district Budgam. Several indicators of quality practices were analyzed, and it was found that following implementation, the facility showed stronger governance in terms of quality, more frequent internal assessment, increased staff training coverage, and higher patient satisfaction. However, a few weaknesses remained in corrective and preventive action documentation, follow-up of unresolved gaps, and staff shortages. There is always scope for improvement to meet the highest quality standards. Sustaining post-certification quality standards will require regular committee review, inclusion of the PDCA cycle, continued training and capacity building and attention to staff shortages. Therefore, multi-facility studies are recommended to examine whether these practices are sustained and their effect on patient outcomes.

Ethical Declaration

Before data collection, ethics approval and permission of the study were obtained from the relevant academic authority. All study participants provided their voluntary informed consent. The confidentiality of data was maintained during data collection.

Financial Support

None.

Conflict of Interest

The authors declare no conflict of interest either financial or non-financial.

REFERENCES

Awasthi, V. (2024). *Assessment of quality assurance standards by using NQAS checklis*t. https://drs.iihmrdelhi.edu.in/bitstreams/dde7d161-e7b6-4bb0-9094-b26132d72611/download

Babu, F., & Thomas, S. (2020). The relationship between total quality management practices and organisational image in the hospital industry: An empirical examination. *International Journal of Productivity and Quality Management, 29*(1), 1-23. https://doi.org/10.1504/ijpqm.2020.10026183

Folland, S., Goodman, A. C., Stano, M., & Danagoulian, S. (2023). *The economics of health and health care.* Routledge. https://doi.org/10.4324/9781003308409

Graban, M., & Toussaint, J. (2018). *Lean*

hospitals. In Productivity Press. https://doi.org/10.4324/9781315380827

Kadam, V. A. (2021). *National quality assurance standards*. National Health Mission, Madhya Pradesh. https://drs.iihmrdelhi.edu.in/bitstreams/af985762-5fc7-4308-b594-9431e39a071e/download

Ministry of Health and Family Welfare. (2021). *Operational guidelines for improving quality in public health facilities*. https://qps.nhsrcindia.org/sites/default/files/2022-04/Operational-Guidelines-for-Improving_Quality_Public_Health_Facilities_2021.pdf

National Health Systems Resource Centre (2024). *National Quality Assurance Standards for Public Health Facilities*. https://qps.nhsrcindia.org/sites/default/files/202405/National%20Quality%20Assurance%20Standards%202024%20_revised.pdf

Singh, V., Singh, A. K., Kulshrestha, M. R., Singh, D., Khan, A., & Singh, M. (2024). Effect of National Accreditation Board for Hospital-Recommended Trainings on Patient Care Standards: A Comparative Study Based on the National Quality Assurance Standards Guidelines in a Tertiary Health-care Institute. *Indian journal of public health, 68*(4), 502–506. https://doi.org/10.4103/ijph.ijph_1262_23.

Wani, E., Mansoor, S., Iqbal, M., & Jahangir, M. (2024). Knowledge, attitude and practices towards standards of working in a peripheral institute through application of ISQUA (International Society for Quality in Healthcare) accredited NQAS guidelines. *International Journal of Advanced Research*. 12. 599-610. https://doi.org/10.21474/IJAR01/18160.

World Health Organization. (2018). *Continuity and coordination of care: A practice brief to support implementation of the WHO Framework on integrated people-centred health services*. https://iris.who.int/bitstreams/7c938c63-5570-4c0e-95f2-d310bb647704/download.

World Health Organization. (2024). *Quality health services*. https://www.who.int/news-room/fact-sheets/detail/quality-health-services.

Yadav, A. (2019). Sustenance of NQAS *standards in primary and secondary level health facilities in India-A retrospective study*. https://drs.iihmrdelhi.edu.in/bitstreams/8a7f7f8f-d9a3-4e96-add0-15f16df45103/download