QUALITY ASSURANCE OF LABOUR ROOM AND MATERNITY OT AT DISTRICT HOSPITAL GANDHI NAGAR, JAMMU, J&K

Dissertation Submitted to

The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

By

Archana Koul

Under the Supervision and Guidance of

Dr Alok Kumar Mathur

2024

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for successful completion of Internship

w.e.f *1st May 2024 to 27th June 2024*

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She worked on the project titled-

"To assess the availability and accessibility of essential Maternal and Newborn health services at public health facilities of Jammu Division in accordance with LaQshya Guideline"

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **Quality Assurance of Labour Room and Maternity OT at District Hospital Gandhi Nagar, Jammu, J&K** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

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Dr. Archana Koul

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CERTIFICATE

This is to certify that dissertation titled **Quality Assurance of Labour room and Maternity OT at District Hospital Gandhi Nagar , Jammu , J&K** is a record of the research work undertaken by Dr Archana Koul in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide
IIHMR University, Jaipur

Date 3/07/2024

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Date 3/07/2024

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ABSTRACT

Title: Quality Assurance of Labour Room and Maternity OT at District Hospital Gandhi Nagar, Jammu, J&K

Author Name: Archana Koul

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Background: LaQshya guidelines provided by Government of India are applicable to all Government-run medical colleges, district hospitals, community health centers, sub-district hospitals, and referral units and aims to organize the infrastructure and protocol of labour rooms and maternity operation theatre according to guidelines. The standards are provided in guidelines for the inputs (like space, layout, equipment, consumables, and human resources), process and outcomes.

Objectives: To assess the district hospital's compliance with LaQshya guidelines, focusing on infrastructure, equipment, and drug supplies in the labor room and maternity operation theater. To assess the adequacy of human resources, including the availability and training of skilled personnel. Additionally, the study seeks to identify gaps and challenges in implementing LaQshya guidelines and propose recommendations for improvement.

Methodology: The study was conducted in 200 bedded district hospital, Gandhinagar, Jammu, J&K. The study is descriptive in nature. Observation, document review, and staff and patient interviews were used to gather the primary data. Data was collected using standardized checklists in compliance with LaQshya norms, using purposive sampling for hospital selection and convenient sampling for respondents.

Results: The results show that in its current state, the inputs, process, and outcomes for both labour room and operation theatre are excellent. The scorecard for labour room exceeds the required minimum of 70%. Non-availability of some equipment's, Lack of certain trainings, inadequate space i.e. Structural constraints are some of the gaps observed.

Conclusion: The district hospital, Gandhinagar, Jammu must focus on sustaining the quality standards in accordance to LaQshya.

Keyword: Labour room, Operation theatre, LaQshya guideline

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List of Abbreviations

1.	MOHFW	Ministry of Health and Family Welfare
2.	GOI	Government of India
3.	DH	District Hospital
4.	SI	Staff Interview
5.	RR	Record Review
6.	PI	Patient Interview
7.	OB	Observation
8.	NHM	National Health Mission
9.	PDCA	Plan-Do-Check-Act
10.	RMNCHA	Reproductive Maternal Newborn Child and Adolescent Health
11.	NHSRC	National Health Systems Resource Centre
12.	OBG/Obs.	Obstetrics & Gynecology
13.	OSCE	Objective Structured Clinical Examination
14.	PPH	Post-partum Hemorrhage
15.	RMC	Respectful Maternity Care
16.	PHC	Primary Health Center
17.	SNCU	Special Newborn Care Unit
18.	PPIUD	Post Partum Intrauterine contraceptive device
19.	IEC	Information education communication
20.	PIH	Pregnancy induced hypertension
21.	LDR	Labour delivery recovery
22.	RACE	Rescue-Alarm-Contain-Extinguish

Chapter 1. Introduction

'Quality means doing it right when no one is looking.'

-Henry Ford.

'Improve Quality, you automatically improve productivity.'

-W. Edwards Deming.

As stated rightly, quality refers to doing things correctly from the start in order to get outstanding and beneficial outcomes. In the context of medical care and hospital treatment, "quality" refers to all the characteristics of the medical services that must be met in order for patients to receive the finest care possible. The terminology and ideas used to characterise health care quality differ throughout nations, stakeholders, and over time. This variance is a reflection of changing views about what constitutes high-quality healthcare as well as changes in health care policy, such as the move from hospitals to networks and primary care. These perceptions can be summed up as follows: "quality assurance for hospitals," "health care quality improvement," and "population health improvement."

Understanding Quality in Healthcare

The central and most crucial component of every health facility's service is quality. Most patients have expectations that go beyond just receiving care; these include being treated with courtesy, staff behavior, a clean facility, and prompt, pleasant service. Although it is commonly ignored, experts rarely give the patient's point of view much thought. A quality health care system implies a number of things, including high standards of care, easy access to a team of qualified and experienced medical experts, a quality-focused organization, clear education and communication, and continuous assessment of patient feedback (satisfaction). Additionally, it helps patients by focusing on patient safety, vulnerable patients, safe transportation, continuity of treatment, and making proper health care decisions.

Quality Assurance: What is it?

According to ISO 9000, quality assurance (QA) is "part of quality management focused on providing confidence that quality requirements will be fulfilled." It is a means of reducing errors or faults in manufactured items as well as issues when delivering solutions or services to clients. Maintaining a desired degree of quality in a service or product, particularly by paying close attention to each step of the production or delivery process, is another definition of quality assurance. "Right first time" (mistakes should be eliminated) and "fit for purpose" (the product should be appropriate for the intended purpose) are two principles that are included in quality assurance.

The Importance of Quality Assurance in Healthcare Facilities

Every healthcare institution needs to have a quality assurance procedure in place. To meet patient expectations and drive improvements that boost comfort, clinical outcomes, and satisfaction, a strong quality assurance program is essential. A hospital's quality assurance system aims to enhance patient trust and the hospital's reputation while optimizing processes, boosting efficiency, and enhancing the institution's competitiveness. The first use of quality assurance dates back to World War II, when ammunition was tested and examined for flaws after it was manufactured. Modern quality assurance systems place a strong emphasis on identifying flaws early in the process, before they affect the product's final output. In quality assurance, every aspect—including appropriateness, continuity, efficacy, and efficiency—must be given equal weight. Hospital quality assurance is becoming more and more important due to rising consumer health consciousness, fierce market competition, an increase in medical tourism, and, lastly, a growing concern for patient safety.

1.1Background:

The Need for Quality Improvement in Maternal and Neonatal Healthcare in India: The Role of LaQshya Initiative

In India, despite notable advancements in healthcare, maternal and neonatal mortality rates persist at alarming levels. The pressing need for a targeted intervention to enhance the quality of maternal and neonatal healthcare services is evident. LaQshya emerged as a

holistic program aimed at bridging the existing gap between healthcare infrastructure and the requisite quality of care necessary for ensuring safe childbirth and optimal outcomes for mothers and newborns.

Data from the National Family Health Survey (NFHS-5) shows a significant increase in institutional births in India, rising from 39 percent in 2005-06 to 79 percent in 2015-16, and reaching 89 percent in 2019-21. However, this increase in institutional deliveries has not led to a proportionate decline in maternal and newborn mortality rates or stillbirths. The inadequate quality of care provided in health facilities remains a significant contributing factor. Despite notable improvements, with the maternal mortality ratio at 97 (SRS 2018-20) and neonatal mortality rate at 32, there is a substantial gap in achieving the targeted healthcare outcomes.

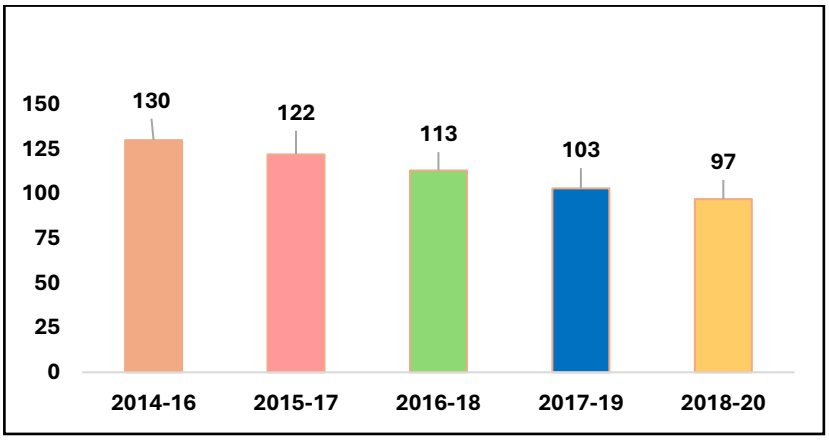


Fig 1.1 Maternal Mortality Ratio since 2014 in India (Source SRS Data)

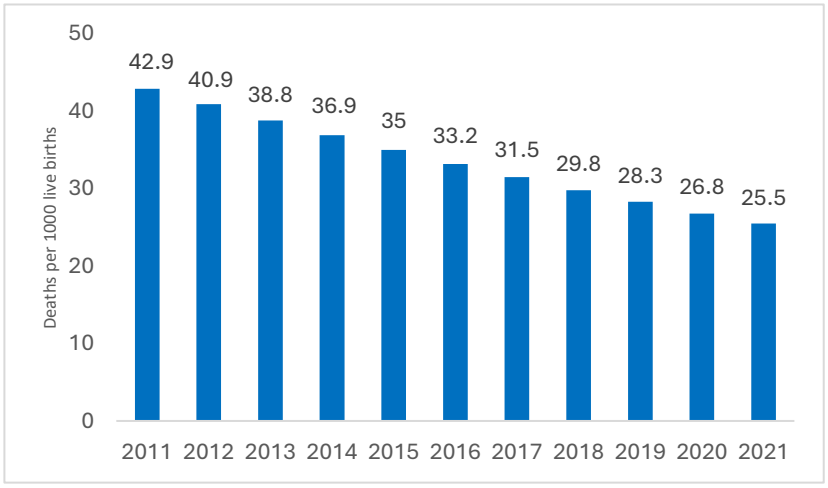


Fig 1.2 India: Infant Mortality Rate from 2011 to 2021(in deaths per 1,000 live births)

(Source: World Bank Statista 2024)

Quality of care is increasingly recognized as a crucial element of the ongoing maternal and newborn health agenda, especially regarding labor and delivery and immediate postnatal care. The LaQshya framework is based on evidence-based practices and international standards.

guidelines for maternal and neonatal health. Drawing inspiration from successful initiatives worldwide, LaQshya integrates best practices in areas such as facility readiness, infection prevention and control, skilled attendance at birth, and postnatal care, among others.

In summary, while the increase in institutional births is promising, it has not translated into significant reductions in maternal and neonatal mortality rates due to persistent inadequacies in healthcare quality. LaQshya represents a proactive approach to address these gaps and elevate the standard of maternal and neonatal healthcare delivery in India.

1.2 Rationale

The labor room serves as the epicenter of maternal and child health services, where crucial interventions are provided during childbirth. The quality of care in labor rooms directly impacts maternal and neonatal outcomes. Inadequate infrastructure, insufficient skilled personnel, lack of essential equipment, and poor adherence to clinical protocols in labor rooms contribute to adverse outcomes such as maternal deaths, stillbirths, and neonatal deaths.

Recognizing the significance of labor room quality improvement, LaQshya targets key areas for enhancement. By ensuring that labor rooms are well-equipped, staffed with skilled healthcare providers, and adhere to standardized clinical protocols, the initiative aims to create a conducive environment for safe childbirth. Quality improvement in labor rooms not only enhances the likelihood of positive maternal and neonatal outcomes but also promotes institutional deliveries and improves overall healthcare-seeking behavior among pregnant women.

This study holds significant implications within the context of the LaQshya initiative. By assessing the status of labor room quality improvement initiatives in public health facilities, it provides valuable insights into the implementation and impact of LaQshya at the

grassroots level. Through an in-depth exploration of facility readiness, compliance with LaQshya guidelines, and stakeholder perspectives, the study contributes to ongoing efforts to strengthen maternal and child health services.

Furthermore, the findings of this study can inform policy formulation, programmatic adjustments, and resource allocation to optimize the effectiveness of LaQshya. By identifying areas of success and areas needing improvement, the study facilitates targeted interventions and capacity-building initiatives to sustain and scale up the gains achieved through LaQshya. Ultimately, the study aims to catalyze positive change in maternal and child health outcomes by leveraging the potential of the LaQshya initiative.

1.3 Overview of LaQshya

On December 11, 2017, the Government of India's Ministry of Health & Family Welfare launched the LaQshya programme. The programme aims to improve the quality of care during labour and the early postnatal period, decreasing the rates of sickness and mortality among mothers and newborns, and increasing beneficiary satisfaction. Furthermore, to guarantee a happy delivery experience by offering all expectant mothers who visit public health facilities i.e.Respectful Maternity Care (RMC).[9]

1.4 Target Beneficiaries:

The LaQshya program benefits all pregnant women and newborns delivering in public health facilities. This initiative aims to enhance the quality of care in labor rooms, maternity operation theatres, obstetrics intensive care units (ICUs), and high dependency units (HDUs) for pregnant women.

Facilities that handle over 100 deliveries per month, or 60 deliveries per month in hilly and desert regions, are prioritised under the LaQshya initiative. These facilities include government medical college hospitals, district hospitals, and similar health centres. First Referral Units (FRUs) are also given preference.[9]

1.5 Aim of Study:

The purpose of the proposed study is to understand the availability and accessibility of essential maternal and neonatal health services at healthcare facilities and to suggest improvements regarding the management process by assessing the levels of quality and their effect on hospital performance. By conducting a gap analysis through compliance checks, the study seeks to assess the existing quality assurance measures for maternal and neonatal health services at the hospital.

1.6 Objective:

i. To assess the compliance of District Hospital Gandhi Nagar, Jammu with LaQshya guidelines regarding infrastructure, equipment, and human resources for maternal and neonatal health services.

ii. To identify gaps and challenges in implementing LaQshya guidelines in Jammu Division's public health facilities and propose recommendations for improvement.

Chapter 2. Review of Literature

The review of literature highlights significant variability in the quality and readiness of maternal and neonatal health services across different regions in India. Studies indicate that the implementation of the LaQshya programme has led to notable improvements in some hospitals , which saw enhancements in intrapartum care and infection control. However, many facilities, with inadequate infrastructure, insufficient human resources, and poor adherence to standard operating procedures. Challenges such as lack of essential equipment, poor hygiene practices, and insufficient training for healthcare providers are common. Despite these issues, targeted quality improvement interventions and government-supported programs have shown potential for significant positive impacts, highlighting the need for sustained efforts and strategic interventions to bridge gaps and elevate the standard of maternal and neonatal care across the country.

S. No.	Title of the study (Author/s, year)	Objectives	Key Findings
1	**LaQshya- an uphill climb: a review of implementation of LaQshya programme at a tertiary center in Chennai.** Mahalakshmi, N. M., Kanmani, N. K., Kirubanidhi, N. V. U., & Swetha, N. S. (2023)	To conduct a retrospective evaluation of the LaQshya programme at the Government Kasturba Gandhi Hospital for Women and Children in Chennai, which is housed inside the Institute of Social Obstetrics.	Significant improvements in quality of care from 40% to 93%, earning a platinum badge. Improved intrapartum care, timely interventions, infection control, and reduced neonatal asphyxia and sepsis. Decreased maternal deaths due to pregnancy-induced hypertension and eclampsia.
2.	**A study of maternal and newborn healthcare services at district hospital Sitamarhi, Bihar.** Sagar, N., Mankar, D. D., & Kumar, A. (2020)	Evaluating the quality of maternity and infant care provided by a 100-bed district hospital in Sitamarhi,	Hospital did not meet minimum standards, scoring 42% in the labor room and 54% in the maternity OT. Challenges included lack of human resources,

		Bihar, in accordance with LaQshya criteria.	inadequate SOPs, and insufficient organizational framework. Needed 28 percentage points improvement in labor room and 16 in OT.
3.	**Improving quality of care for perinatal and newborn care at district and subdistrict hospitals in Haryana, India: Implementation research protocol.** Das, M. K., Arora, N. K., Dal path, S., Kumar, S., Qazi, S. A., & Bahl, R. (2018)	To improve quality of perinatal and newborn care at district and subdistrict hospitals in Haryana, India.	Documented changes in 16 indicators across delivery, antenatal, and sick newborn care. Quality improvement interventions led to significant improvements in pregnancy outcomes, reduced stillbirths, and lower maternal and newborn mortality. Better outcomes for sick newborns.
4.	**Readiness of public health facilities to provide quality maternal and newborn care across the state of Bihar, India: a cross-sectional study of district hospitals and primary health centres.** Kaur, J., Franzen, S. R. P., Newton-Lewis, T., & Murphy, G. (2019)	To evaluate public health facilities' preparedness to offer high-quality maternity and infant care throughout Bihar, India.	Highlighted deficiencies in capacity to deliver quality services. PHCs fared worse than DHs. DHs inadequately prepared for neonatal care due to lack of essential equipment and supplies. Poor hygiene practices and insufficient availability of essential drugs. Positive association between adequate staffing and better quality of care in DHs.
5.	**A study on evaluation of laQshya in Andaman.** Saha, M. (2019)	To assess how the LaQshya programme in the Andaman Islands is implementing the respectful maternity and infant care measures.	Identified inadequacies in respectful maternity care. 95% of mothers not allowed to walk or change position during labor, 56.7% subjected to direct pushing, and only 22% allowed to choose comfort positions. Suggested repeated counseling, staff

			reinforcement, and surprise visits to improve care.
6.	**Rollout of quality assurance interventions in labor room in two districts of Bihar, India.** Sharma, J., Neogi, S. B., Negandhi, P., Chauhan, M., Reddy, S., & Sethy, G. (2016)	To implement quality assurance measures in labor rooms in two districts of Bihar.	Significant improvements in infection control and quality management scores. Targeted facilities with over 200 deliveries per month, identified gaps using Ministry of Health checklist, and developed priority actions. Ensured scalability and sustainability of interventions.
7.	**An Action Plan to Assess the Current Situation of Maternal & Newborn Care at Government Health Facilities in Jharkhand, India.** Singh, Janet and Kumar, Sudesh, (2007)	To evaluate the state of maternity and infant care at Ranchi, Jharkhand's government health facilities.	Identified gaps in the health system contributing to maternal and newborn mortality and morbidity. Proposed action plan to address deficiencies and improve quality of care.
8.	**Assessment of labour rooms in public health facilities of Bihar, India.** Ray, A. (2013)	To assess labor rooms in public health facilities of Bihar.	More than half lacked adequate infrastructure for safe delivery, sanitation, and hygiene. 77% of labor rooms lacked inverters, and 72% of deliveries conducted without partograph. Significant gaps in infection control measures, availability of essential drugs, consumables, equipment, and instruments.

Chapter 3. Research Methodology

Quality Assurance can be conducted in its whole for any hospital, or it can be carried out independently for each department. The aim of this project is to examine quality assurance at a secondary care hospital's labour room department and maternity OT.

The areas of concern (AOC) used for studying the dimensions of quality assurance in general for any department or whole hospital includes [10]

i. Service Provision
ii. Patient Rights
iii. Inputs
iv. Support Services
v. Clinical Services
vi. Infection Control
vii. Quality Management
viii. Outcome

Table 3.1: NQAS Standards for District Hospital – 8 Area of Concern [10]

Area of Concern - A: Service Provision	
Standard A1	The facility provides curative services
Standard A2	The facility provides RMNCHA services
Standard A3	Standard A3: The facility provides diagnostic services
Area of Concern- B: Patient Rights	
Standard B1	The facility provides information to care seekers, attendants & community about the available services and their modalities.
Standard B2	Services are delivered in a manner that is sensitive to gender, religious and cultural needs, and there are no barriers on account of physical economic, cultural or social reasons
Standard B3	The facility maintains privacy, confidentiality & dignity of patient, and has a system for guarding patient related information

Standard B4	The facility has defined and established procedures for informing patients about the medical condition, and involving them in treatment planning, and facilitates informed decision making
Standard B5	The facility ensures that there are no financial barriers to access, and that there is financial protection given from the cost of hospital services
Area of Concern- C: Inputs	
Standard C1	The facility has infrastructure for delivery of assured services, and available infrastructure meets the prevalent norms.
Standard C2	The facility ensures the physical safety of the infrastructure.
Standard C3	The facility has established Programme for fire safety and other disaster.
Standard C4	The facility has adequate qualified and trained staff, required for providing the assured services to the current case load.
Standard C5	The facility provides drugs and consumables required for assured list of services
Standard C6	The facility has equipment & instruments required for assured list of services.
Standard C7	The facility hs a defined and established procedure for effective utilization, evaluation and augmentation of competence and performance of staff
Area of Concern- D: Support Services	
Standard D1	The facility has established Programme for inspection, testing and maintenance and calibration of Equipment.
Standard D2	The facility has defined procedures for storage, inventory management and dispensing of medicines and consumables in pharmacy and patient care areas
Standard D3	The facility provides safe, secure and comfortable environment to staff, patients and visitors

Standard D4	The facility has established Programme for maintenance and upkeep of the facility.
Standard D5	The facility ensures 24 X 7 water and power backup as per requirement of service delivery, and support services norms
Standard D7	The facility ensures clean linen to the patients
Standard D11	Roles & Responsibilities of administrative and clinical staff are determined as per govt. regulations and standards operating procedures
Area of Concern - E: Clinical Services	
Standard E1	The facility has defined procedures for registration, consultation and admission of patients.
Standard E2	The facility has defined and established procedure for clinical assessment, reassessment and preparation of the treatment plan
Standard E3	The facility has defined and established procedures for continuity of care of patient and referral
Standard E4	The facility has defined and established procedures for nursing care
Standard E5	The facility has a procedure to identify high risk and vulnerable patients
Standard E6	Facility ensures rationale prescribing and use of medicines
Standard E7	The facility has defined procedures for safe drug administration
Standard E8	The facility has defined and established procedures for maintaining, updating of patients' clinical records and their storage
Standard E11	The facility has defined and established procedures for Emergency Services and Disaster Management
Standard E12	The facility has defined and established procedures of diagnostic services.
Standard E13	The facility has defined and established procedures for Blood Bank/Storage Management and Transfusion
Standard E14	The facility has established procedures for Anaesthetic Services
Standard E15	The facility has defined and established procedures of Operation theatre service

Standard E16	The facility has defined and established procedures for the management of death & bodies of deceased patients
Standard E18	The facility has established procedures for Intranatal care as per guidelines.
Standard E19	The facility has established procedures for postnatal care as per guidelines.
Area of Concern - F: Infection Control	
Standard F1	The facility has infection control Programme and procedures in place for prevention and measurement of hospital associated infection
Standard F2	The facility has defined and implemented procedures for ensuring hand hygiene practices and antisepsis
Standard F3	The facility ensures standard practices and materials for Personal protection.
Standard F4	The facility has standard procedures for processing of equipment and instruments.
Standard F5	Physical layout and environmental control of the patient care areas ensures infection prevention.
Standard F6	The facility has defined and established procedures for segregation, collection, treatment and disposal of Bio Medical and hazardous Waste
Area of Concern- G: Quality Management	
Standard G1	The facility has established organizational framework for quality improvement
Standard G2	The facility has established system for patient and employee satisfaction
Standard G3	The facility have established internal and external quality assurance programs whenever it is critical to quality
Standard G4	The facility has established, documented implemented and maintained Standard Operating Procedures or all key processes and support services
Standard G5	The facility maps its key processes and seeks to make them more efficient by reducing nonvalue adding activities and wastages.
Standard G6	The facility has established system of periodic review as internal assessment, medical, death audits and prescription audits.
Standard G7	The facility has defined mission, values, Quality policy & objectives & prepares a strategic plan to achieve them

Standard G8	The facility seeks continually improvement by practicing Quality method and tools
Standard G10	The facility has established procedures for assessing, reporting, evaluating and managing risk as per Risk Management Plan
Area of Concern- H: Outcome Indicator	
Standard H1	The facility measures Productivity Indicators and ensures compliance with State/National benchmarks
Standard H2	The facility measures Efficiency Indicators and ensure to reach State/National Benchmark
Standard H3	The facility measures Clinical Care & Safety Indicators and tries to reach State/National benchmark
Standard H4	The facility measures Service Quality Indicators and endeavours to reach State/National benchmark

3.1. Research Question:

i. To what extent do public health facilities in Jammu Division comply with LaQshya guidelines regarding infrastructure and equipment for maternal and neonatal health services?
ii. How adequate are the human resources, including skilled personnel and their training, in delivering maternal and neonatal health services as per LaQshya guidelines in Jammu Division's public health facilities?
iii. What are the gaps and challenges faced by healthcare facilities in Jammu Division in implementing LaQshya guidelines, and what recommendations can be proposed for improvement?

3.2. Study Design:

The study conducted was a descriptive cross-sectional study.

3.3. Sampling technique:

The study was conducted at a secondary care District hospital in jammu. The hospital was chosen as a study unit via Purposive Sampling. Also, the respondents (key informants) were chosen by convenient sampling.

3.4. Study Population:

Government Hospital Gandhinagar -secondary care public hospital in the city, Jammu district of J&K. It is a district hospital which serves the patients coming from the urban as well as rural areas of Jammu Province. It also covers the patients if referred from other districts. The hospital is sanctioned with 200 beds and functional beds are 160, which almost remain occupied all through the year.

All sorts of basic facility like Lab tests, X-Rays, ECG, Ultrasound, CT-Scan, Audiometry, Physiotherapy, Blood Bank etc. are available in the hospital with a good team of Doctors & Paramedics comprising of almost all the specialties required at District Level. Approximately 1300-1400 patients are examined in an average on daily basis & provided quality treatment including medicines, operations, deliveries etc. All types of surgeries including Laparoscopic, Gen. Surgery, Orthopaedics, ENT Surgery, Eye Surgery, Dental Surgery, Gynaecological Surgeries etc are being performed successfully in the hospital by Surgeons of repute.

3.5. Sampling Frame:

i. The patients of the Labour room and Maternity OT Departments
ii. Patient's attendant
iii. Staff Nurses
iv. In charge of the Department
v. Hospital Managers,
vi. Administrative staff.

3.6. Inclusion Criteria:

i. Inpatient General Ward Patients
ii. Relatives of the Patients
iii. Staff available at the time of the conduct of study

Exclusion Criteria:

i. Patients who are unsound or critically ill are not included in the study.
ii. ICU patients were not included

3.7. Tool for Data collection:

The tool for data collection was the Laqshya Checklist for Labour room and Maternity OT (As provided by NHSRC)

NHSRC_LR_Tool

NHSRC_MOT_Tool

3.8. Data Collection Techniques:

To assess compliance with the necessary measurable elements and checkpoints at the health facility, the following four data collection approaches are considered:

i. OBSERVATION (OB): It involves direct observation of the products, procedures, and surroundings. For example , putting up signs, IEC materials,Process mapping,Partographs and important information.
ii. RECORD REVIEW (RR): It might not be feasible to watch every step of the process. Records produce objective evidence, which can be verified by triangulating the results of observations. Examining departmental registers, such as admission and handover registers, OPD register, Outcome register, PPIUD register are few examples.
iii. STAFF INTERVIEW (SI): This helps in the evaluation of the staff members' levels of expertise and understanding. Patient rights, Process mapping , quality policy, etc. are a few examples.
iv. PATIENT INTERVIEW (PI): This makes it easier to gather feedback from patients regarding the standard of care they received while they were in the hospital. It provides the viewpoint of the users. For instance: Feedback on quality of services, staff behaviour, staff conduct, services, etc.

3.9. Methods of Data Collection

1. Primary Data Collection:

i. The necessary observations were made using a non-participatory observation method.

ii. The interview method was employed to gather the study's necessary data.

2. Secondary Data Collection :

Secondary data was collected from both the departments to collect data on hospital performance.

i. Training Records of Labour room and Maternity OT
ii. Administration Round Record
iii. Equipment Maintenance Record
iv. Lab Investigation Record
v. Patient Feedback Record
vi. Biomedical waste Disposal Record
vii. Resuscitation Record
viii. Fumigation Record
ix. Internal Assesssment Record
x. Audits Records
xi. Patient Transfer Record

3.10. Ethical consideration:

- An Informed Consent was taken from the authority of the hospital.
- The study was entirely voluntary, and participants were free to leave at any time without incurring any fees.

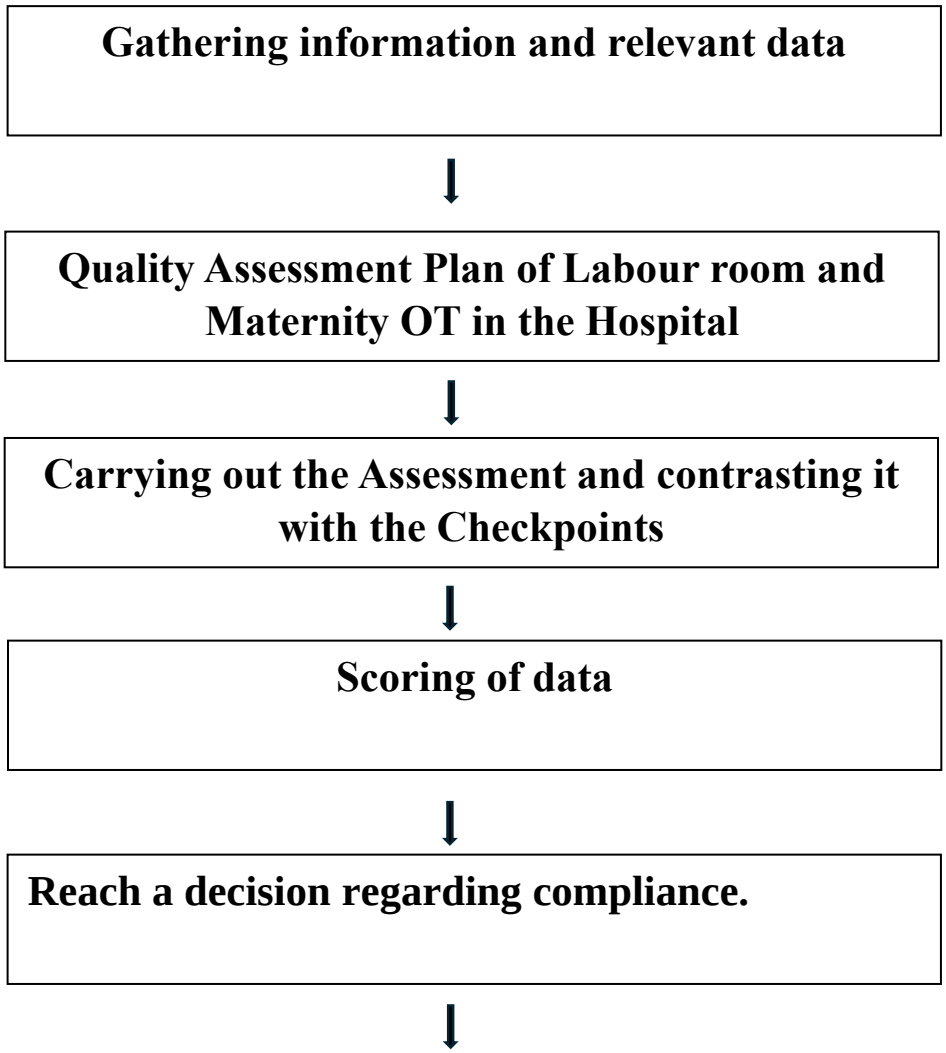
- Measures were taken to safeguard the privacy and confidentiality of participants' personal information.
- No personal information was collected, and responses were kept confidential

3.11. Data Analysis:

The criteria listed under the assessment checklist that served as a guide for the study will be used to score the data.

A summary of the procedure is provided in order to make the assessment more structured and to give a direction for the gathering and analysis of data in order to evaluate the level of care provided in the hospital's labour room and maternity OT departments.

Fig3.1: The Assessment Process for Data Analysis

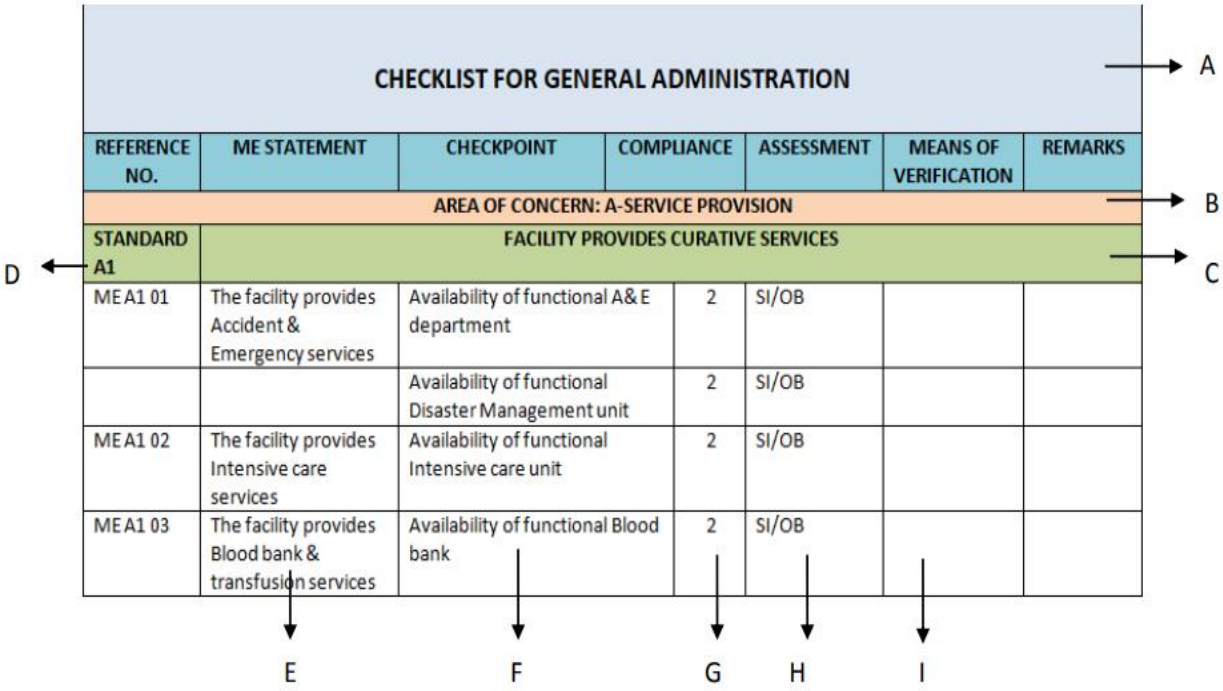


Making recommendations

Assessment Protocol

Using Checklists:

Familiarity with the checklist which is the main tool for the assessment-



CHECKLIST FOR GENERAL ADMINISTRATION						
REFERENCE NO.	ME STATEMENT	CHECKPOINT	COMPLIANCE	ASSESSMENT	MEANS OF VERIFICATION	REMARKS
AREA OF CONCERN: A-SERVICE PROVISION						
STANDARD A1	FACILITY PROVIDES CURATIVE SERVICES					
ME A1 01	The facility provides Accident & Emergency services	Availability of functional A&E department	2	SI/OB		
		Availability of functional Disaster Management unit	2	SI/OB		
ME A1 02	The facility provides Intensive care services	Availability of functional Intensive care unit	2	SI/OB		
ME A1 03	The facility provides Blood bank & transfusion services	Availability of functional Blood bank	2	SI/OB		

A. Signifies the department for which the checklist is intended.

B. Identifies the area of concern that the underlying standards are relevant to.

C. The statement of the standard that is being measured is contained in it.

D. It contains the reference number for the Standard, which can be used to find and follow the Standard, as well as the Measurable elements.

E. Contains the text of the measurable element for the respective standard.

F. It displays the relevant measurable element and the checkpoints used to measure conformity to the standard. It functions as the primary benchmark for measurement, using which compliance is assessed and a score is established.

G. This column is used to record the assessment's conclusions regarding compliance, whether it be full, partial, or non-compliance.

H. Denotes 'HOW' to gather the information.

There are four ways for assessment i.e.

SI: Staff Interview

OB: Observations

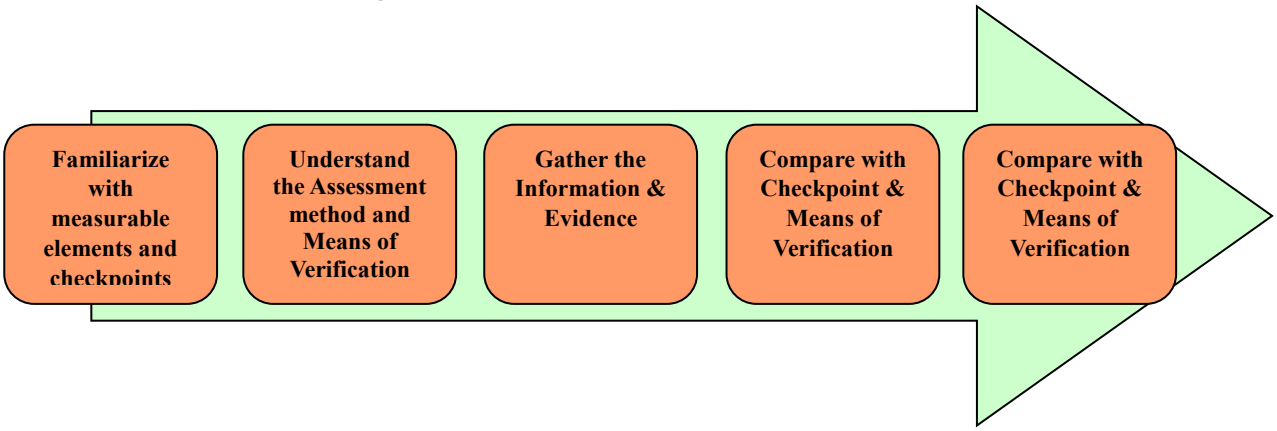
RR: Record Review

PI: Patient Interview

I. Means of Verification. It signifies what to see at a checkpoint. A list of tools, a process to follow, a benchmark, a question to ask, a reference to another document, or a guideline could all be included.

Typical process of gathering information for assessment proceeds as follows:

Fig4.1: Flow of Information



Assessment Conclusion:

Each checkpoint's level of compliance must be determined after obtaining the data and supporting documentation for the measurable items. Given that there are some indications of compliance, "Partial Compliance" may be granted in cases where the information and evidence gathered appear to fall short of the standards. If any of the conditions are not met, a non-compliance should be issued. Following the conclusion, "C" stands for compliance, "P" for partial compliance, and "N" for non-compliance.

The Scoring System:

Rules for Scoring-

i. 2 marks for full Compliance
ii. 1 mark for partial compliance
iii. 0 marks for non-compliances

After each checkpoint was given a score, the departmental total was determined by adding up all of the individual scores. To enable comparison with other departments, the final result was expressed as a percentage

Calculation of percentage is as follows:

$$\frac{\text{Score Obtained} \times 100}{\text{No. of checkpoint in checklist} \times 2}$$

To facilitate easy calculation, scores can be placed into an Excel document or calculated manually. The following formats for assessment results can be used:
Departmental scorecard: This will represent the Quality scores of the department. The overall as well as the area of concern wise score in term of percentages can be generated. This can be generated in two ways

- The departmental score can be computed manually using the straightforward method above and the completed score card template provided at the end of the checklist.
- If you use an Excel tool, the scorecard will immediately be generated once you have entered the scores for each checkpoint.

Chapter 4: Results/Findings

Study settings: A Secondary care District hospital in Jammu District, J&K

Department: Labour Room and Maternity O.T.

Finding 1:

The assessment revealed varying levels of compliance with LaQshya guidelines across different areas of concern.

Table 4.2: Labour Room Score

Area of Concern wise Score			Percentage %
A	Service Provision	20/22	91%
B	Patient Rights	37/40	93%
C	Inputs	98/108	91%
D	Support Services	58/62	94%
E	Clinical Services	182/184	99%
F	Infection Control	67/74	91%
G	Quality Management	70/70	100%
H	Outcome	40/40	100%

Table 4.3: Maternity OT Score

Area of Concern wise Score			Percentage %
A	Service Provision	17/18	94%
B	Patient Rights	22/22	100%
C	Inputs	101/116	87%
D	Support Services	68/70	97%
E	Clinical Services	166/168	99%
F	Infection Control	119/126	94%
G	Quality Management	56/56	100%
H	Outcome	24/24	100%

Finding 2:

The compliance levels indicate a strong adherence to LaQshya guidelines in several areas, such as quality management and clinical services, but also highlight deficiencies, particularly in inputs and infrastructure.

Finding 3: Significant gaps were identified in both the Labour Room and Maternity OT:

i. Lack of availability of point of care diagnostic tests (e.g. HIV, Hb, Protein Urea Test)
ii. Lack of adequate space as per delivery load (According to guidelines- Labour tables should be placed in a way that there is a distance of at least 3 feet from the sidewall, at least 2 feet from head end wall, and at least 6' from the second table)
iii. Birth companions are not allowed with the patients in the labour room.
iv. 3-sided screen /partition is not present in labour room for visual privacy
v. No separate toilet for the staff in the labour room
vi. Labour room layout is not in accordance with the LDR Concept
vii. Non availability of telephone and Intercom services in both labour room and maternity OT for the purpose of Intramural and Extramural communication
viii. There is no Unidirectional flow of goods and services in Maternity OT
ix. Lack of housekeeping staff in accordance with the load
x. Non - availability of some of the equipment & instruments for diagnostic procedures e.g. Protein urea test kit, Cervical Biopsy set, USG, ABG machine
xi. Less sets of linen, clean delivery gowns.
xii. Non availability of standard materials for cleaning and disinfection e.g. Chlorine solution, Glutaraldehyde
xiii. No demarcated Disposal zone in Maternity OT (Structural Constraint)
xiv. No separate changing rooms for male and females in Maternity OT
xv. No jointless tiles for the floors in Maternity OT
xvi. Some of the drugs like Procaine, opioids and muscle relaxants not present in Maternity OT(Opioids are called from Palliative care dept)

xvii. The department is unable to ensure the adequate personal protection Equipment as per requirements for the staff in Labour room like protective eye care, elbow length gloves, disposable gowns, gum boots.

xviii. Maternity OT dept is unable to rule out some of the Hospital Acquired Infection like CAUTI

xix. Lack of positive pressure in OT, or adequate air exchange due to lack of duct like system in Maternity OT

xx. No separate routes for clean and dirty items in Maternity OT

xxi. Procedure for using Identification tags on mother and baby not followed in Labour room.

xxii. Some trainings of NSSK and SBA are not done for all the staff.

xxiii. There is no Provision of Periodic immunization of the staff. (Immunization of only sanitary staff is done.)

Despite the gaps, several strengths and good practices were noted, such as:

i. The departments have defined and established procedures for clinical assessment and reassessment of the patients.

ii. The departments have defined procedures for registration, consultation and admission of patients.

iii. The departments have defined and established procedures for continuity of care of patient and referral

iv. The departments have established procedures for Intranatal care as per guidelines

v. The departments have established procedures for postnatal care as per guidelines

vi. The departments have defined and Implemented procedures for ensuring hand hygiene practices and antisepsis

vii. The departments have defined and established procedures for segregation, collection, treatment and disposal of Bio Medical and hazardous Waste.

viii. The departments have established, documented implemented and maintained Standard Operating Procedures for all key processes and support services.

ix. The departments have established system of periodic review as internal assessment , medical & death audit and prescription audit

x. Facility Provides Curative Services, RMNCHA Services and diagnostic Services .

xi. Facility maintains the privacy, confidentiality & Dignity of patient and related information.

xii. The facility has established Programme for inspection, testing and maintenance and calibration of Equipment.

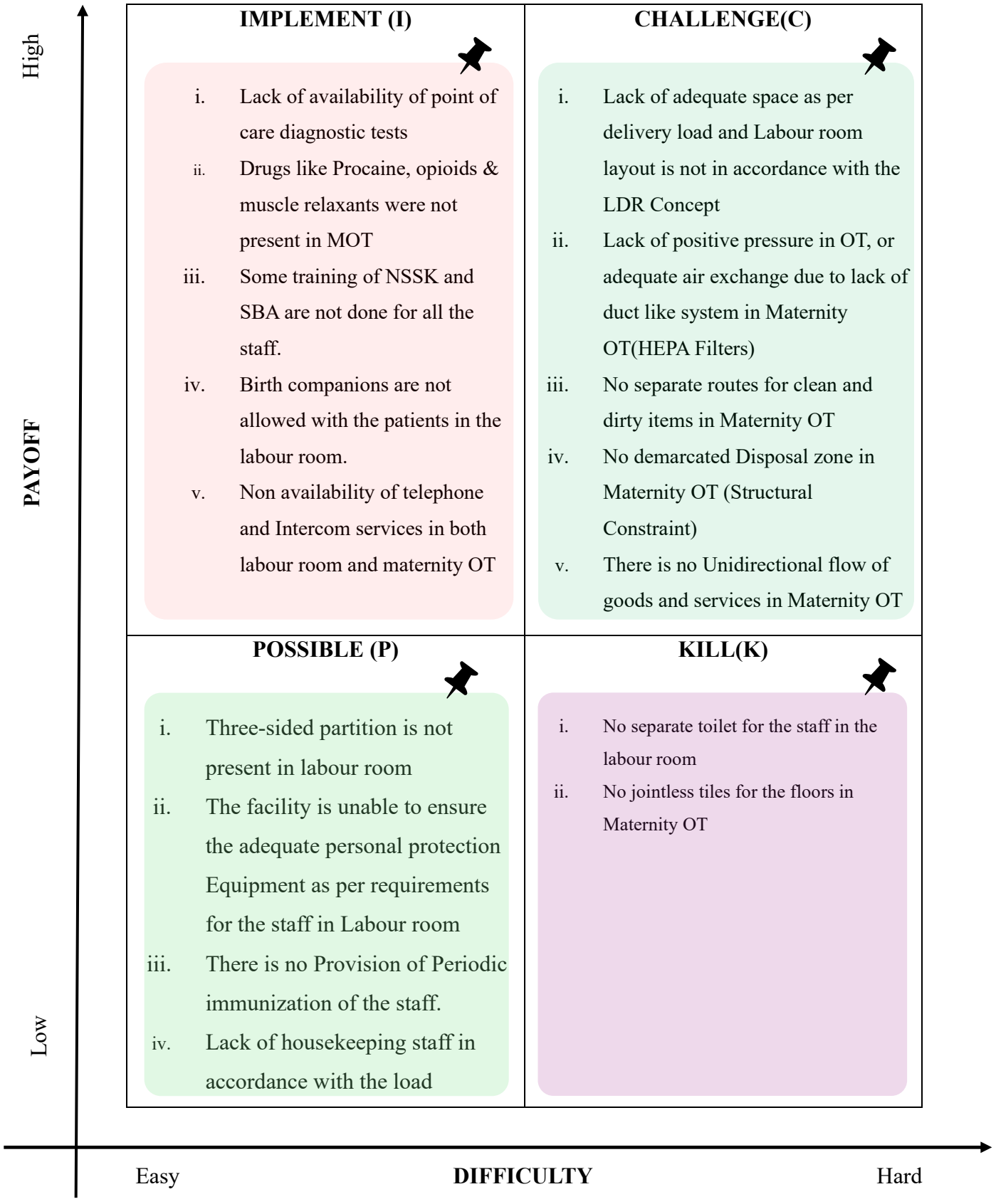
xiii. The facility has defined procedures for storage, inventory management and dispensing of drugs in pharmacy and patient care areas

xiv. The facility provides safe, secure and comfortable environment to staff, patients and visitors.

xv. The facility has established Programme for maintenance and upkeep of the facility

xvi. Facility has defined procedures for safe drug administration.

Table 5.1: Pick Chart results for Gap Analysis



Chapter 5: Discussion

The well-defined LaQshya checklists was used to analyze data in order to assess the performance of the labour room and maternity OT at the Jammu district hospital in relation to quality standards. The project's objective was to evaluate the department's general quality in relation to the several areas of concern. These themes can be useful in producing high-quality scorecards for both departments.

This checklist with applicable standards and well-defined measurable elements makes it convenient to assess the departments. The study enables us to arrive at the following conclusion in terms of their obtained scores that describes the compliance of the various elements of Quality.

The LaQshya (Labour Room Quality Improvement Initiative) guidelines, developed by the National Health Systems Resource Centre (NHSRC), aim to improve the quality of care in labour rooms and maternity operation theatres (OTs) to ensure safer deliveries and better maternal and neonatal outcomes. This section discusses the compliance of the labour room in a secondary care district hospital in Jammu, based on the LaQshya checklist, categorized into maximum compliance, moderate compliance, partial compliance, and non-compliance areas.

Maximum Compliance:

1. Clinical Services:

The hospital's strict adherence to clinical guidelines and procedures is evident from the labour room's practically complete compliance with clinical services, which guarantees high-quality patient care during labour and delivery. There are some tiny discrepancies due to relatively modest problems that don't have a big effect on overall clinical performance.

2.Quality Management:

The hospital's commitment to ongoing quality improvement in both Labour room and Maternity OT is demonstrated by its flawless score in quality management. The institution's dedication to upholding high standards of care is demonstrated by the efficient implementation of regular audits, feedback mechanisms, and corrective actions.

3.Outcome:

Outstanding maternal and newborn health outcomes are indicated by a flawless score on outcome measures, which demonstrates how well the treatment given was able to avoid difficulties and guarantee safe deliveries. It appears from this that the hospital's procedures are in line with the intended health results for expectant moms and their babies.

Partial Compliance:

1.Service Provision:

Strong service compliance in the labour room indicates that the majority of the essential services needed for labour and delivery are available. The little discrepancy points to a few minor areas that require attention in order to reach complete compliance, like the availability of point of care diagnostic tests.

2.Infection Control:

The majority of infection prevention techniques are executed well, as indicated by the infection control measures score of 67 out of 74. The hospital may need to concentrate on particular infection control procedures, frequent training, and adherence to updated guidelines in order to achieve complete compliance.

3.Patient Rights:

High ethical standards and patient-centered care are demonstrated in the labour room. Nonetheless, further focus in areas like patient education and privacy may be required to attain optimal compliance.

4.Support Services:

The hospital demonstrates good compliance with regard to support services, such as blood bank and laboratory support. To attain complete compliance, improvements could be made to guarantee quick response times and better coordination with healthcare services.

5.Inputs:

The labour room has a well-organized system for allocating resources. There are still certain gaps, though, which point to places where better resource management or the addition of new resources could enhance service delivery even more like telephone and intercom services.

Non-Compliance

While there were no areas of complete non-compliance, the lower scores in some of the areas of concerns indicates room for improvement. Addressing these gaps through targeted interventions and continuous monitoring will be essential to elevate the overall quality of care

Chapter 6: Suggestions and Conclusion

Based on the findings, several targeted interventions are suggested to address the gaps and enhance the quality of care in the labour room and maternity OT:

1. **Enhancing Infrastructure and Equipment:**

    i. Ensure adequate space and layout in accordance with LaQshya guidelines.
    ii. Procure necessary diagnostic equipment and point of care tests.
    iii. Increase housekeeping staff and ensure the availability of cleaning and disinfection materials.

2. **Strengthening Human Resources:**

    i. Provide comprehensive training for all staff in NSSK and SBA.
    ii. Implement periodic immunization programs for all staff.

3. **Improving Facility Layout and Services:**

    i. Redesign labour room layout to adhere to the LDR concept.
    ii. Provide separate toilets for staff and ensure the availability of telephone and intercom services.
    iii. Establish separate routes for clean and dirty items in Maternity OT.
    iv. Ensure unidirectional flow of goods and services in Maternity OT.

Conclusion: The LaQshya assessment reveals that the District Hospital Gandhi Nagar, Jammu, performs exceptionally well in most areas of concern, indicating effective implementation of the guidelines. The hospital's strengths in clinical services, quality management, and outcomes are commendable. However, addressing the identified gaps through targeted interventions and continuous monitoring will be essential to further elevate the quality of maternal and neonatal health services. The proposed framework for ensuring quality in the Labour Room and Maternity OT department emphasizes the need for ongoing improvements and adherence to best practices to achieve optimal compliance with LaQshya guidelines.

Fig.6.1: Proposed Framework for Ensuring Quality in the Labour Room and Maternity OT Department

BEFORE THE CHANGE

Review and analyze current practices and conditions

Record and pinpoint areas where standards are not being met

Create a detailed improvement plan addressing the identified issues

Ensure all staff members are informed about the planned changes and their roles in the implementation process

DURING THE CHANGE

Carry out the improvement plan

Continuously track progress and performance against the established standards

Offer necessary support and recognize the staff's efforts and achievements

AFTER THE CHANGE

Sustain the new standards and practices to guarantee long-term improvement

Regularly review performance to ensure ongoing compliance and identify further opportunities for improvement

Foster a culture of quality improvement within the department, encouraging continuous development

District Hospital -Gandhinagar

Department of Gynae. And Obst.

Department of Paediatrics

Post delivery room Obst.

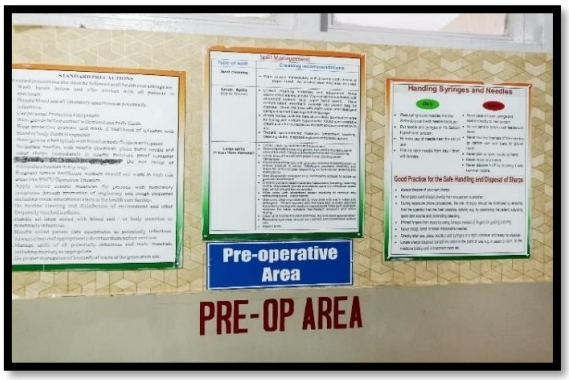
Labour room

Proper maintenance of record registers and disposable items

Availability of wash basin near the point of use

Segregation of Bio Medical Waste as per guidelines.

Maternity ward with proper sanitation and a_Eclampsia corner



M.O.T Complex

Pre-Operative area

Well maintained Equipments in O.T.

Fire extinguisher with standard precautions

Proper labelling of autoclaved Instruments

Cylinder Tagging Index

Newborn Care corner in Maternity O.T.

A well maintained SNCU

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