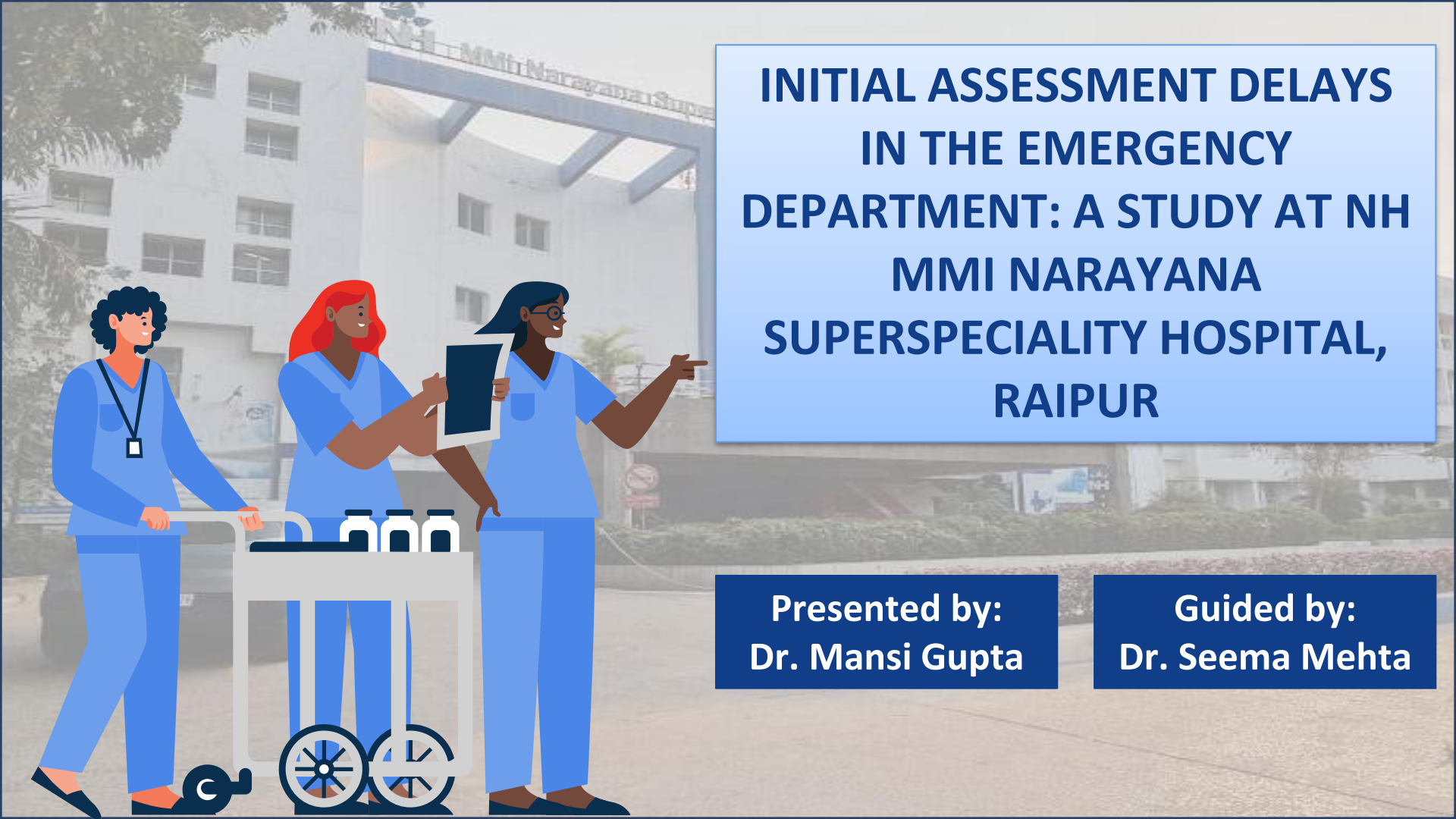


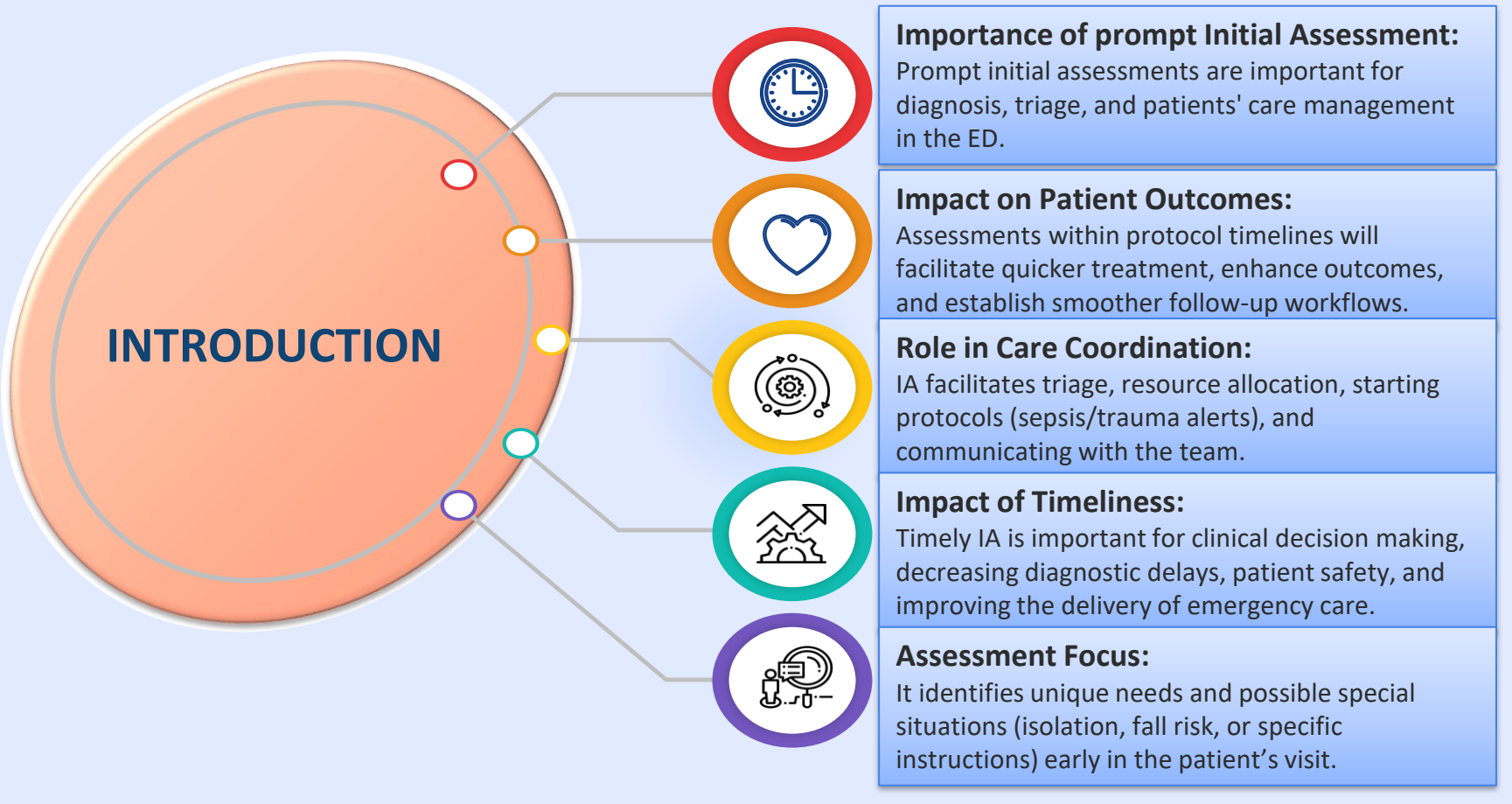


INITIAL ASSESSMENT DELAYS IN THE EMERGENCY DEPARTMENT: A STUDY AT NH MMI NARAYANA SUPERSPECIALITY HOSPITAL, RAIPUR

**Presented by:
Dr. Mansi Gupta**

**Guided by:
Dr. Seema Mehta**

INTRODUCTION



Importance of prompt Initial Assessment:

Prompt initial assessments are important for diagnosis, triage, and patients' care management in the ED.

Impact on Patient Outcomes:

Assessments within protocol timelines will facilitate quicker treatment, enhance outcomes, and establish smoother follow-up workflows.

Role in Care Coordination:

IA facilitates triage, resource allocation, starting protocols (sepsis/trauma alerts), and communicating with the team.

Impact of Timeliness:

Timely IA is important for clinical decision making, decreasing diagnostic delays, patient safety, and improving the delivery of emergency care.

Assessment Focus:

It identifies unique needs and possible special situations (isolation, fall risk, or specific instructions) early in the patient's visit.

RESEARCH QUESTIONS

1. What was the average time spent by doctors and nurses to complete the initial assessment of patients in the Emergency Department compared with defined benchmarks?

2. What were the key drivers associated with delays in completing the initial assessments, and how effective were interventions in improving timeliness in the follow-up period?

OBJECTIVES

To measure the time taken for initial assessments by doctors and nurses in the Emergency Department against the set benchmarks.



To identify major causes of assessment delays



To observe the effect of suggested workflow modifications on assessment timeliness.



To provide recommendations for improving ED assessment compliance and efficiency based on observed data and staff feedback.



LITERATURE REVIEW



Authors (Year)	Study Location	Sample Size	Sampling Techniques	Salient Features
Kayuni J. et al (2024)	British Columbia, Canada	167 patients	Consecutive convenience sampling	Identified ED delays in re-evaluation (65 mins), physician to imaging (52 mins), and nurse to physician (45 mins). 74.7% rated courtesy as good/very good. Suggested point-of-care testing and Lean methods to reduce delays.
Kenneth A. et al (2024)	United States	795 Emergency Departments	Retrospective observational cohort study	Found higher diagnostic delays in low-volume pediatric EDs. Higher volume correlated with lower diagnostic delay rates.
Barwise A. et al (2021)	USA (Midwest & Southeast)	64 clinicians in 11 focus groups	Purposive sampling	Identified diagnostic delays caused by organizational, interactional, clinician, and patient-related factors. Recommended system-level interventions.

LITERATURE REVIEW

Authors (Year)	Study Location	Sample Size	Sampling Techniques	Salient Features
Car LT. et al (2016)	Northwest London, UK	Phase 1: 113; Phase 2: 66 clinicians	Open-ended questionnaire + scoring	Developed PRIORITIZE method to rank diagnosis delay causes and solutions. Top issues: poor communication and inverse care law. Suggested hotlines and better GP education.
Wiseman T. et al (2024)	Australia	10 primary research studies	Scoping literature review	Found lack of structured nursing assessment frameworks in general wards. Recommended continuous systematic assessments to prevent deterioration.
Madhwal S. (2024)	Dehradun, India	Not specified	Observational study with patient interviews	Delays due to overcrowding, bed/staff shortage, and poor coordination. Suggested improved triage, communication, and resource management.



METHODOLOGY



Study Design

The study utilized a cross-sectional research design with **convenience sampling done for timestamps** and **purposive sampling done for nursing questionnaire**.



Study Setting & Study Population

The study period involved a total of **250 cases** seen in the emergency department, with **130 baseline cases** and **120 follow-up cases**.



Data Collection

- Measured assessment TAT using **ED admission records**.
- Surveyed nurses using a **structured questionnaire** to identify perceived barriers.



Data Analysis

- **TAT Analysis** (from admission order till doctors' and nursing assessment): Averaged TAT to compare baseline & follow-up data.
- Thematically analysed **questionnaire responses** to identify delay factors.

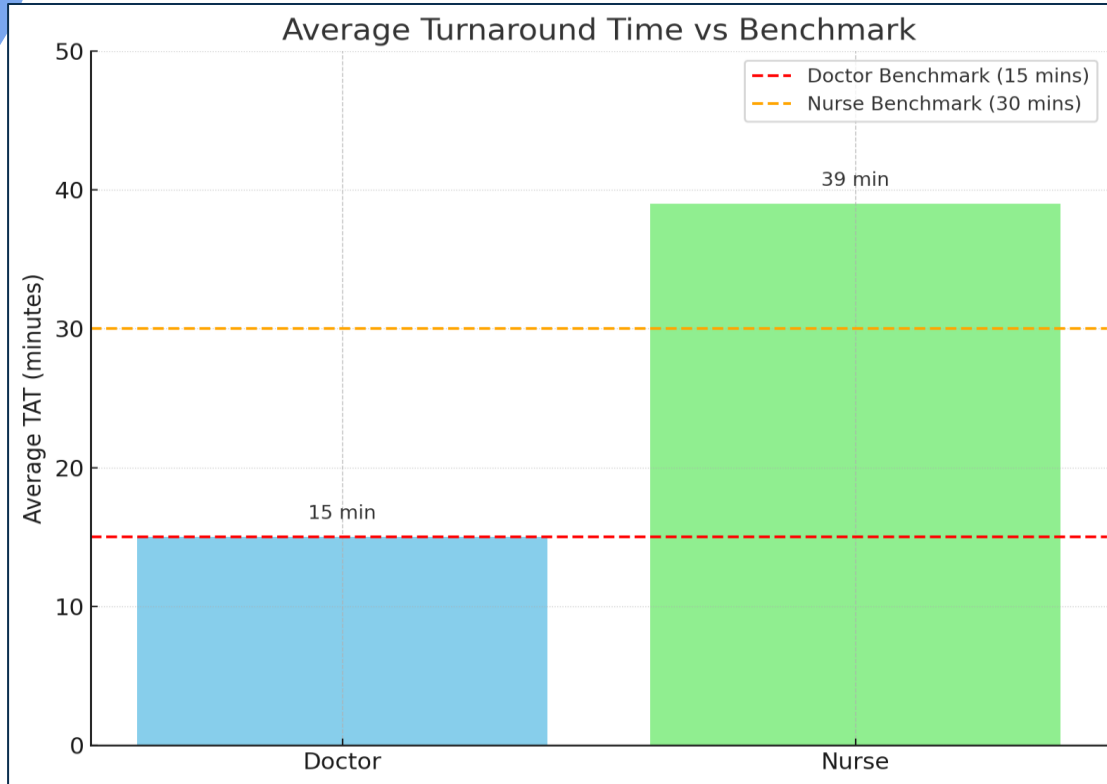


Follow-up Data Collection

After baseline analysis, workflow changes were recommended and follow-up data collected to assess natural improvements.

ANALYSIS & RESULTS:

OBJECTIVE 1: Compliance with Initial Assessment Timelines



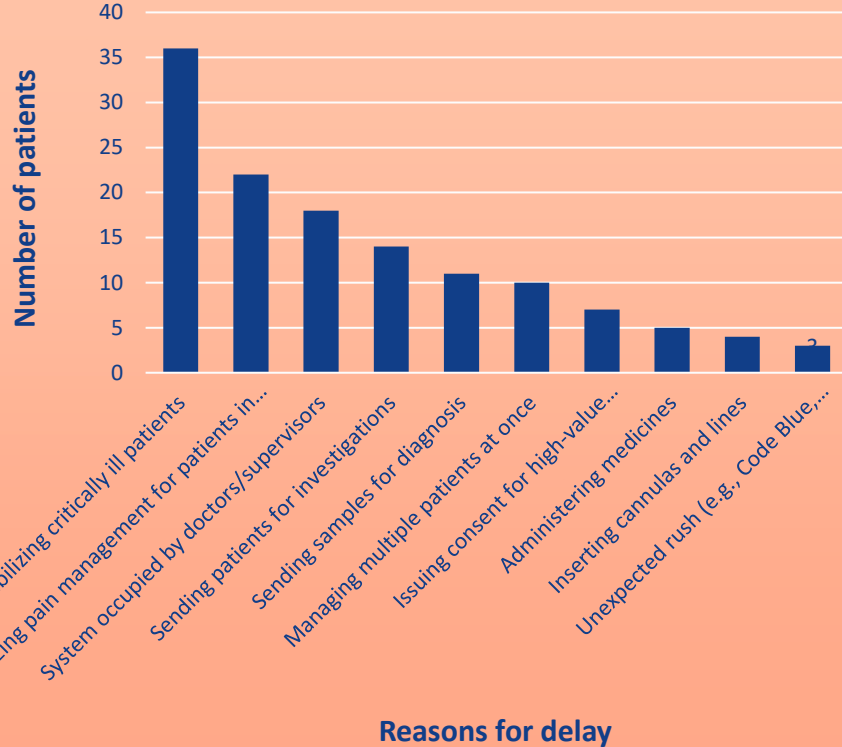
Average TAT vs Benchmark

COMPLIANCE RATES	
Doctor	81.5% (106 out of 130 cases)
Nursing	40% (52 out of 130 cases)

Compliance Rates in Baseline Data

OBJECTIVE 2: Reasons for Delays in Initial Assessment

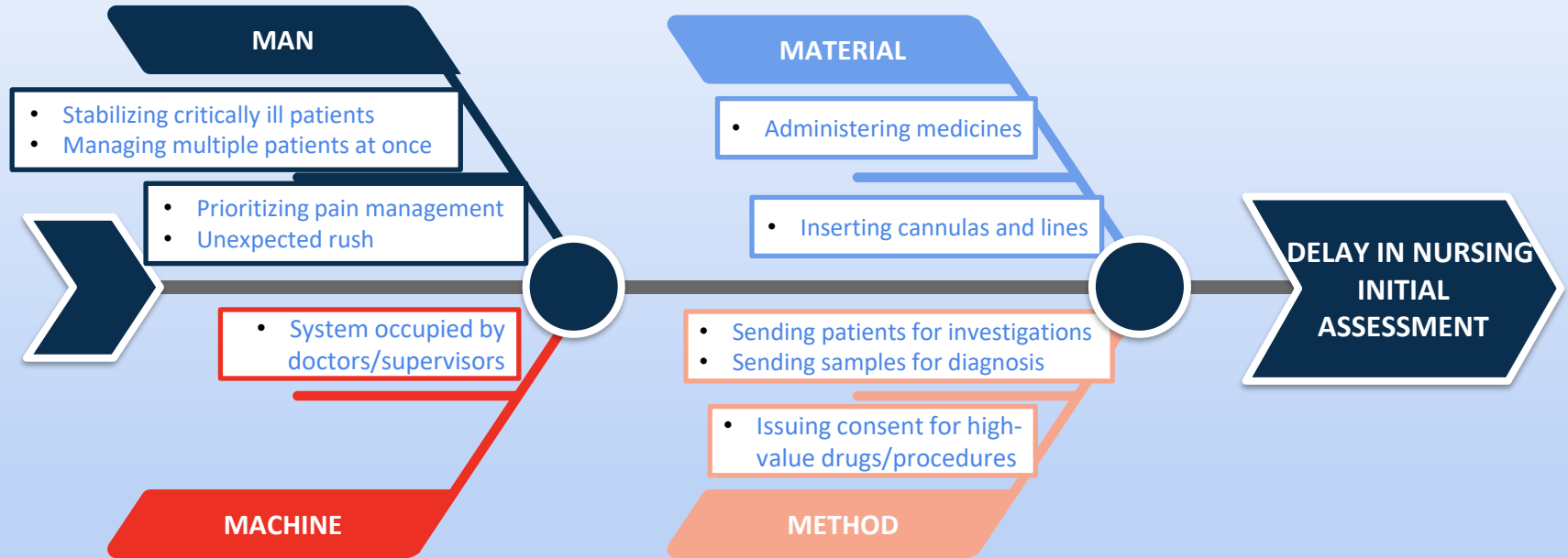
REASONS FOR DELAY (n=130)



Delay Reasons with frequencies:

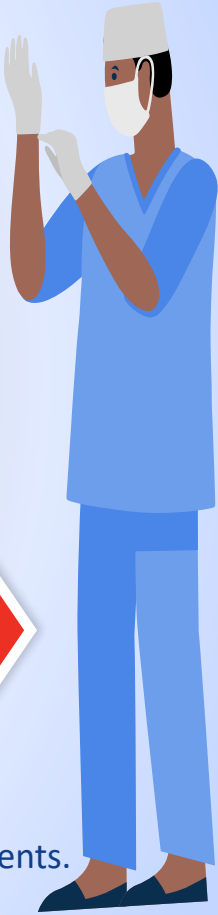
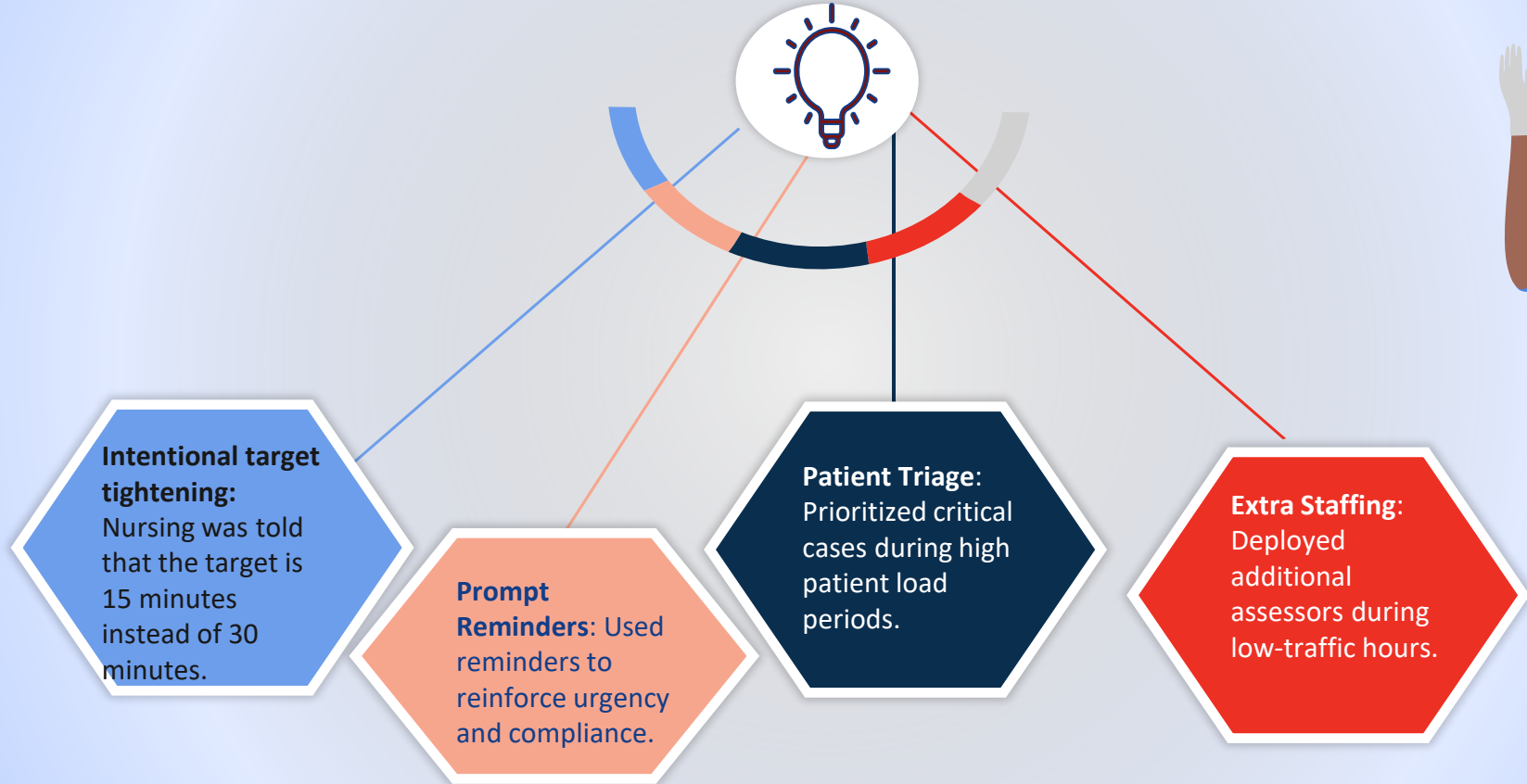
- **Top Cause:** Stabilizing acutely ill patients accounted for over 25% of delays.
- **Other Frequent Causes:** Delays due to pain management and system unavailability.
- **Less Common Issues:** Included consent, medication administration, and patient influx.
- **Outcome:** Helped identify delay patterns and guide targeted interventions.

ISHIKAWA ANALYSIS



OBJECTIVE 3: Effect of Suggested Workflow Changes

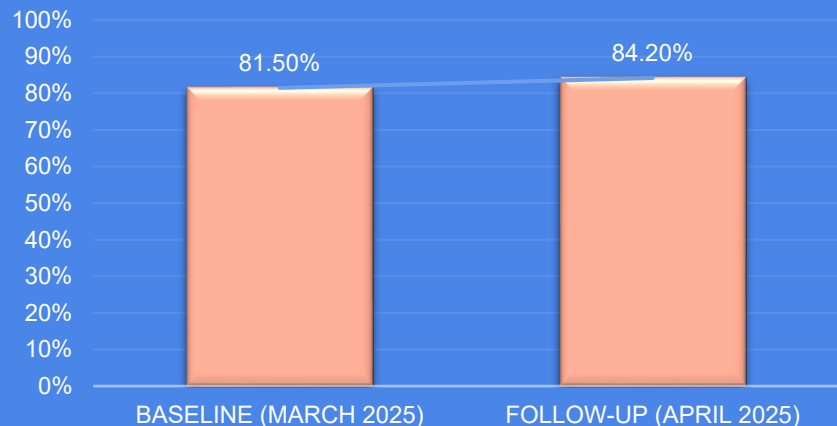
Multiple changes were implemented to work towards improving the delays with initial assessments in the ED.



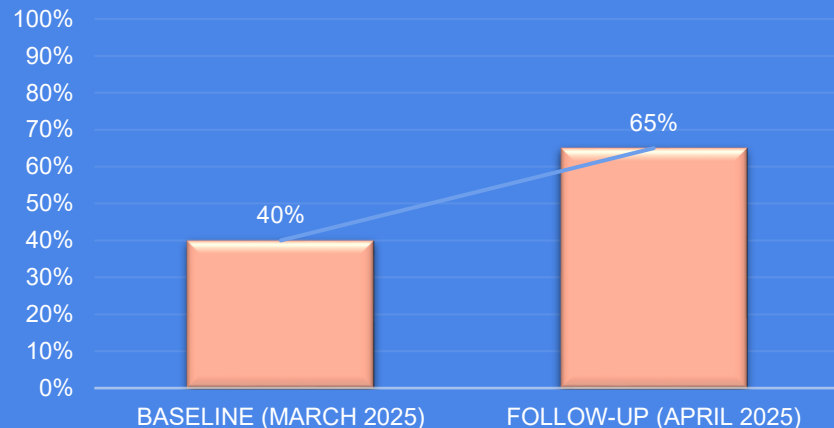
After these steps, follow-up data was collected to determine whether improvement occurred in the assessments.

OBJECTIVE 3: Effect of Suggested Workflow Changes (continued..)

COMPLIANCE RATE OF DOCTORS



COMPLIANCE RATE OF NURSES



COMPLIANCE RATE OF DOCTORS & NURSES: BASELINE & FOLLOW-UP DATA

COMPARISON OF COMPLIANCE OF DOCTORS

BASELINE	106 out of 130 cases
FOLLOW UP	101 out of 120 cases

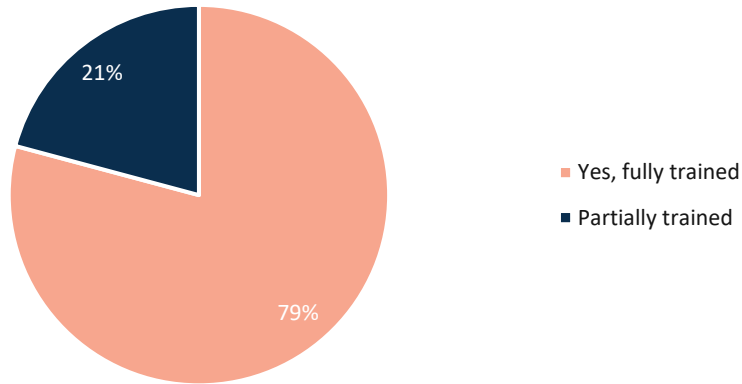
COMPARISON OF COMPLIANCE OF NURSES

BASELINE	52 out of 130 cases
FOLLOW UP	78 out of 120 cases

OBJECTIVE 4: Staff Feedback and Inputs for Recommendations

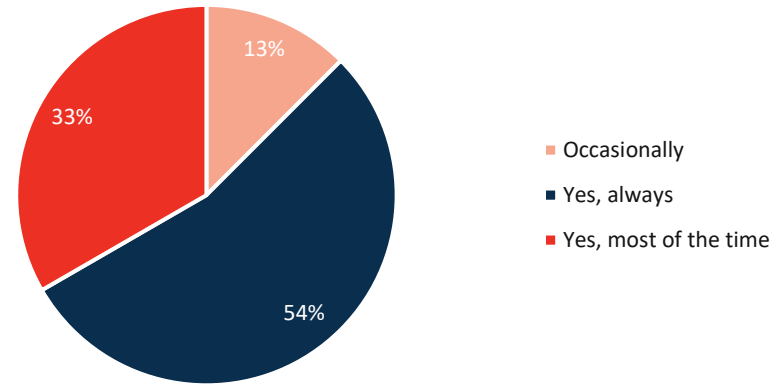
Nursing Survey: Questions and Response Distribution

Have you received proper training on the hospital's protocol for initial nursing assessment in the ED? (24 responses)



Training on Initial Assessment Protocol

Do you routinely complete the nursing initial assessment within 15 minutes of patient arrival in the ED? (24 responses)

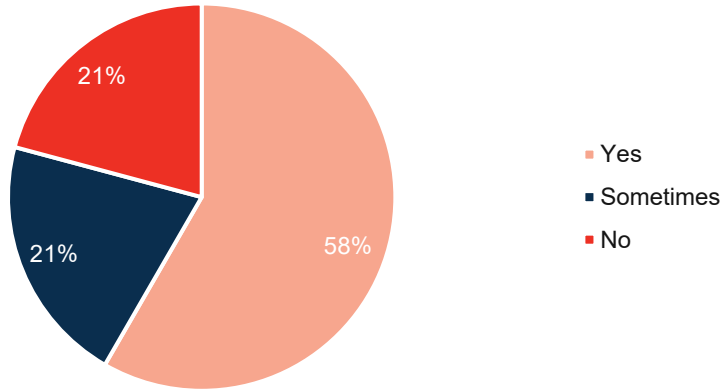


Self-Reported Timeliness of Nursing Assessments

OBJECTIVE 4: Staff Feedback and Inputs for Recommendations (continued..)

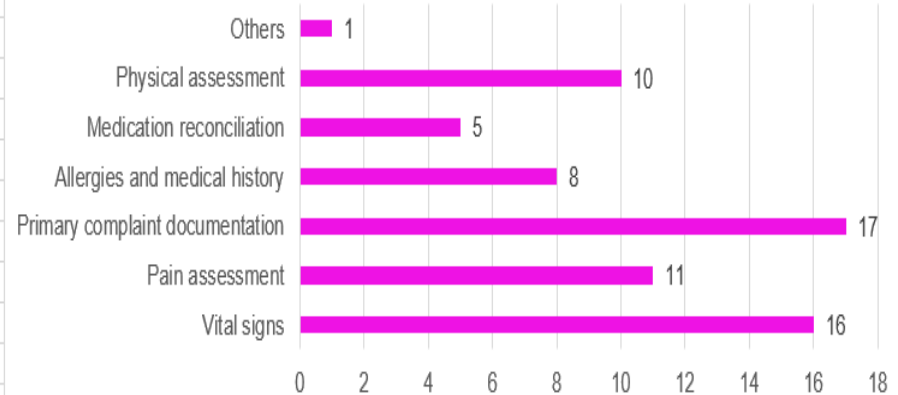
Nursing Survey: Questions and Response Distribution

Do you feel the 15-minute benchmark for initial assessment is realistic in your current work environment? (24 responses)



Nurses' Perception of Benchmark Feasibility

Which components of the initial assessment do you complete during the first encounter? (You can select more than one option)
24 responses



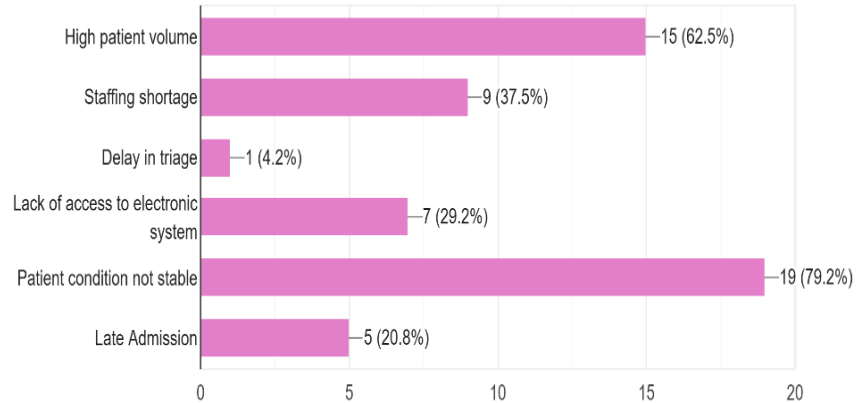
Initial Assessment Components Completed at First Encounter

OBJECTIVE 4: Staff Feedback and Inputs for Recommendations (continued..)

Nursing Survey: Questions and Response Distribution

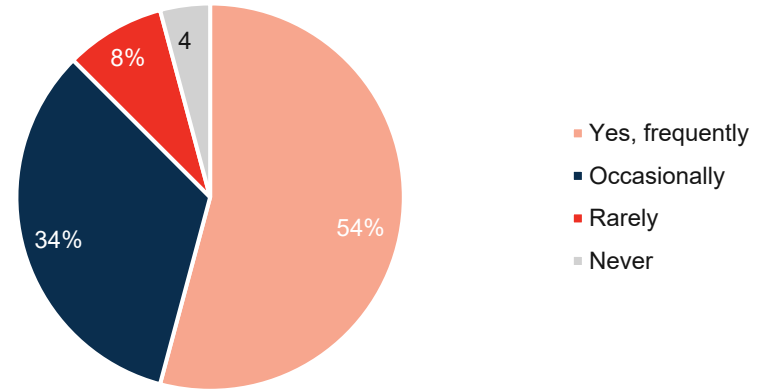
What are the most common barriers to completing timely nursing initial assessments? (You can select more than one option)

24 responses



Barriers to Timely Completion of Nursing Assessments

Have you ever had to delay an assessment because a patient needed urgent care or procedures first? (24 responses)

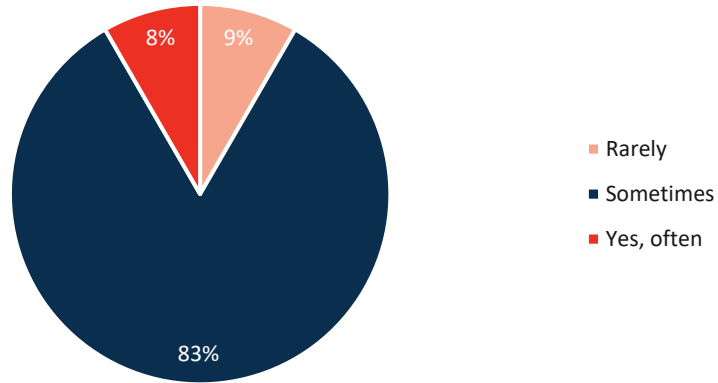


Delays Due to Urgent Care Needs

OBJECTIVE 4: Staff Feedback and Inputs for Recommendations (continued..)

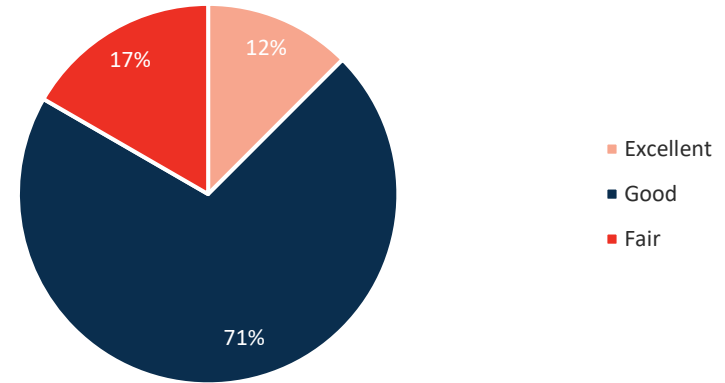
Nursing Survey: Questions and Response Distribution

Do you face any technical issues while documenting the initial assessment in the system? (24 responses)



Technical Challenges in Documentation

How would you rate communication between nurses and doctors during the initial assessment process? (24 responses)

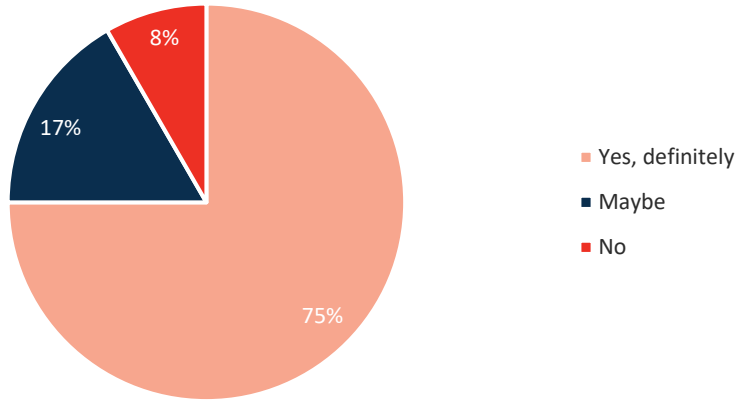


Interdisciplinary Communication Rating

OBJECTIVE 4: Staff Feedback and Inputs for Recommendations (continued..)

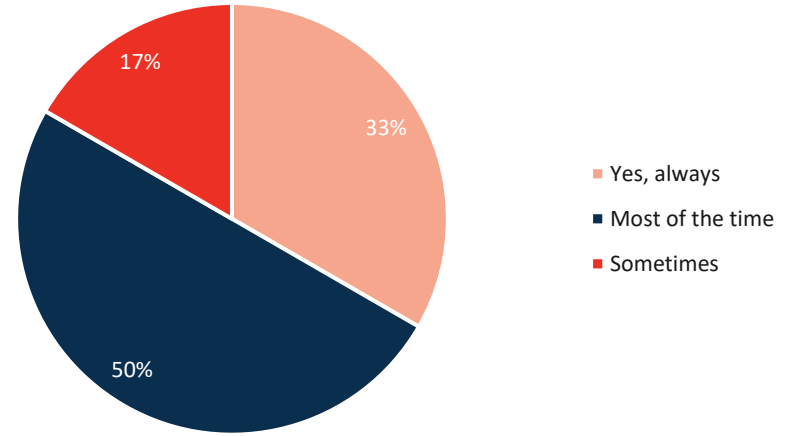
Nursing Survey: Questions and Response Distribution

Do you think more support staff or tools (like portable vitals machines, tablets, etc.) would help improve initial assessments? (24 responses)



Perceived Impact of Additional Support or Tools

Do patients or their families cooperate well during the initial assessment? (24 responses)



Perceived Cooperation from Patients and Families

FINDINGS

83.3% nurses faced technical issues while documenting assessments in the EMR system.

58.3% questioned whether the 30-minute assessment goal was realistic in current ED settings.

62.5% cited high patient volume and 37.5% cited low staffing as main delays.

RECOMMENDATIONS

SUGGESTIONS

Improve EMR reliability, add more access points, and implement mobile documentation tools like tablets.

Reassess the 30-minute benchmark with frontline staff to reflect real ED work conditions.

Add float staff or task-based aides during peak times to support overwhelmed nursing staff.

FINDINGS

Only **12.5%** rated nurse-doctor communication as “excellent”; most rated it just “good.”

Nurses often delayed documenting allergies and medication history despite completing vitals and pain assessment early.

75% supported the need for additional tools or equipment to aid timely assessments.

RECOMMENDATIONS

SUGGESTIONS

Use structured protocols (e.g., SBAR, shift huddles) to improve interdisciplinary communication.

Focus training on prioritizing medication history and allergy documentation alongside vitals.

Ensure availability of portable vitals machines and resources even during crowding or equipment bottlenecks.

CONCLUSION

The study at NH MMI Narayana Superspeciality Hospital assessed the timeliness of initial assessments by doctors and nurses in the ED and evaluated the impact of targeted modifications.



Doctors consistently met the 15-minute benchmark, while nursing compliance significantly improved in the follow-up due to reminders and clearer expectations.



Major clinical delays were caused by critical patient stabilization and immediate pain management needs.



Operational challenges such as staff shortages, system unavailability, and overlapping duties further impacted nursing assessment timelines.



Although nurses were aware of protocols, many found the 15-minute benchmark difficult to achieve under real-time ED conditions.



The findings highlight the need for realistic benchmarks, improved staffing, and system support to sustain timely and effective initial assessments in the emergency department.



THANK YOU

REFERENCES

1. Kayuni J, Dordunoo D, Mallidou M, Mohan M, Marquard P. Exploring delay points at the emergency department. *Canadian Journal of Emergency Nursing*. 2024 Apr 18;47(1):14-9.
2. Michelson KA, Rees CA, Florin TA, Bachur RG. Emergency department volume and delayed diagnosis of serious pediatric conditions. *JAMA pediatrics*. 2024 Apr 1;178(4):362-8
3. Barwise A, Leppin A, Dong Y, Huang C, Pinevich Y, Herasevich S, Soleimani J, Gajic O, Pickering B, Kumbamu A. What contributes to diagnostic error or delay? A qualitative exploration across diverse acute care settings in the United States. *Journal of patient safety*. 2021 Jun 1;17(4):239-48.
4. Car LT, Papachristou N, Bull A, Majeed A, Gallagher J, El-Khatib M, Aylin P, Rudan I, Atun R, Car J, Vincent C. Clinician-identified problems and solutions for delayed diagnosis in primary care: a PRIORITIZE study. *BMC family practice*. 2016 Dec;17:1-9.
5. Wiseman T, Kourouche S, Jones T, Kennedy B, Curtis K. The impact of whole of patient nursing assessment frameworks on hospital inpatients: A scoping literature review. *Journal of Advanced Nursing*. 2024 Sep;80(9):3448-63.
6. Madhwal S. An Observational Study on TAT for Initial Assessment of Patients by Emergency Department at Multi-Speciality Hospital, Dehradun (India); 2024.
7. Darraj A, Hudays A, Hazazi A, Hobani A, Alghamdi A. The association between emergency department overcrowding and delay in treatment: a systematic review. *InHealthcare* 2023 Jan 29 (Vol. 11, No. 3, p. 385). MDPI.
8. Parnass G, Levizion-Korach O, Peres R, Assaf M. Estimating emergency department crowding with stochastic population models. *Plos one*. 2023 Dec 1;18(12):e0295130.
9. Ahmed A, Aram KY, Alzeen M, Vural O, Booth J, Lindsey BF, Ozaydin B. Assessing the Impact of External and Internal Factors on Emergency Department Overcrowding. *arXiv preprint arXiv:2505.06238*. 2025 Apr 25.
10. Elamir H. Improving patient flow through applying lean concepts to emergency department. *Leadership in Health Services*. 2018 Jul 18;31(3):293-309.

ANNEXURE:

1. Sample of Data Collection Worksheet:

[illegible]

2. Google Form: <https://forms.gle/GuC7ufRnpC4NsdhKZ7>

Initial Nursing Assessment in Emergency Department – Feedback Form

This questionnaire is designed to gather feedback from nursing staff on the current process of initial assessments in the Emergency Department. Your responses will help identify gaps and opportunities for improvement.

guptamansi0599@gmail.com [Switch account](#)

Not shared

* Indicates required question

Your name *

Your answer

1. Do you routinely complete the nursing initial assessment within 15 minutes of patient arrival in the ED? *

- ☐ Yes, always
- ☐ Yes, most of the time
- ☐ Occasionally
- ☐ Rarely
- ☐ Never

2. Which components of the initial assessment do you complete during the first encounter? (You can select more than one option) *

- ☐ Vital signs
- ☐ Pain assessment
- ☐ Primary complaint documentation
- ☐ Allergies and medical history
- ☐ Medication reconciliation
- ☐ Physical assessment
- ☐ Other: _____

3. What are the most common barriers to completing timely nursing initial assessments? (You can select more than one option) *

- ☐ High patient volume
- ☐ Staffing shortage
- ☐ Delay in triage

- ☐ Lack of access to electronic system
- ☐ Patient condition not stable
- ☐ Late Admission
- ☐ Other: _____

4. Do you feel the 15-minute benchmark for initial assessment is realistic in your current work environment? *

- ☐ Yes
- ☐ No
- ☐ Sometimes

5. Have you received proper training on the hospital's protocol for initial nursing assessment in the ED? *

- ☐ Yes, fully trained
- ☐ Partially trained
- ☐ No formal training received

6. How would you rate communication between nurses and doctors during the initial assessment process? *

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor
- ☐ Very poor

7. Do you face any technical issues while documenting the initial assessment in the system? *

- ☐ Yes, often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

8. Do you think more support staff or tools (like portable vitals machines, tablets, etc.) would help improve initial assessments? *

- ☐ Yes, definitely
- ☐ Maybe

7. Do you face any technical issues while documenting the initial assessment in the system? *

- ☐ Yes, often
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

8. Do you think more support staff or tools (like portable vitals machines, tablets, etc.) would help improve initial assessments? *

- ☐ Yes, definitely
- ☐ Maybe
- ☐ No
- ☐ Not sure

9. Do patients or their families cooperate well during the initial assessment? *

- ☐ Yes, always
- ☐ Most of the time
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

10. Have you ever had to delay an assessment because a patient needed urgent care or procedures first? *

- ☐ Yes, frequently
- ☐ Occasionally
- ☐ Rarely
- ☐ Never

Submit

Page 1 of 1

Clear form

Never submit passwords through Google Forms.

This content is neither created nor endorsed by Google. [Terms of Service](#) [Privacy Policy](#)

Does this form look suspicious? [Report](#)

Google Forms