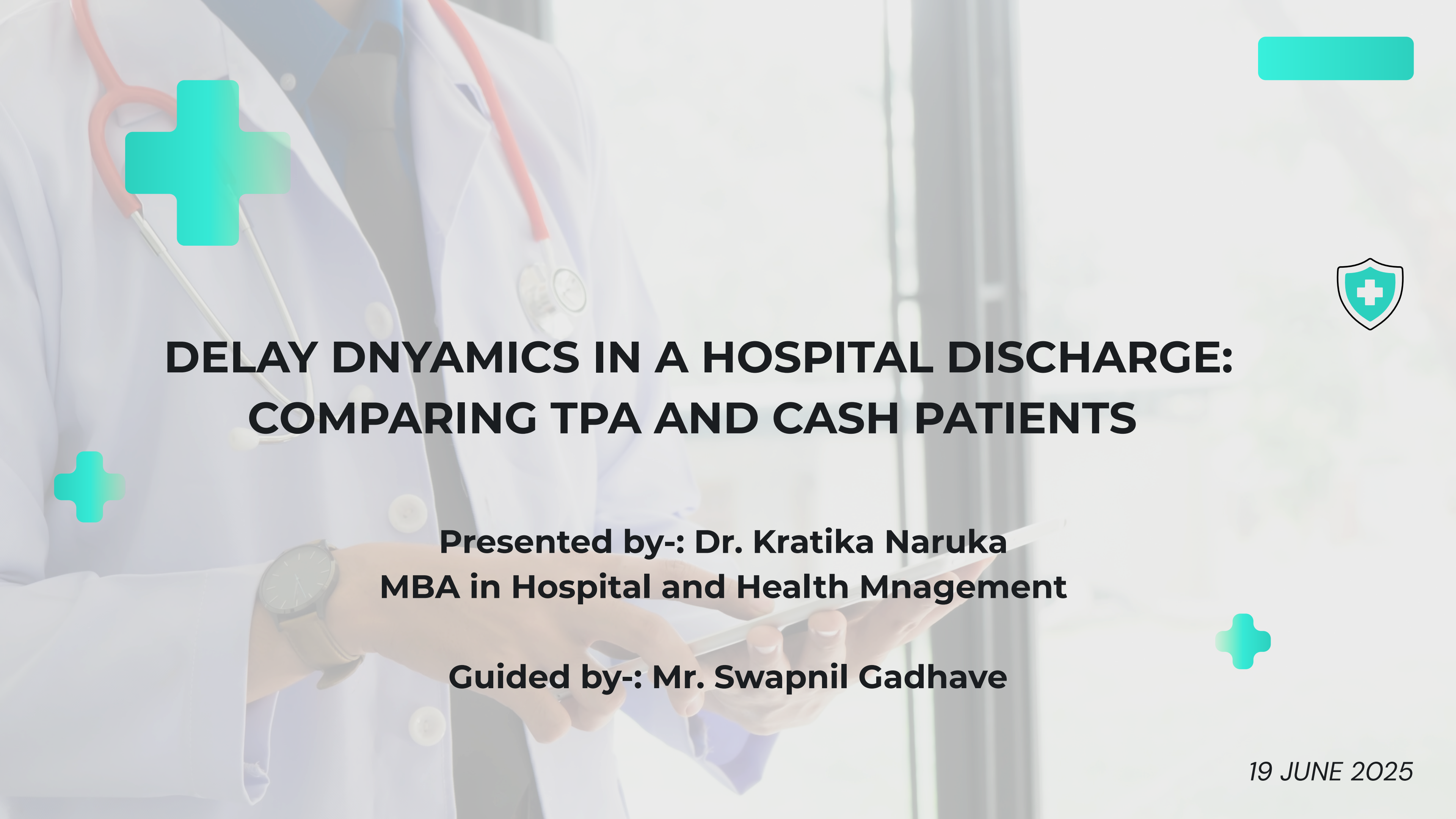




DELAY DYNAMICS IN A HOSPITAL DISCHARGE: COMPARING TPA AND CASH PATIENTS

**Presented by:- Dr. Kratika Naruka
MBA in Hospital and Health Management**

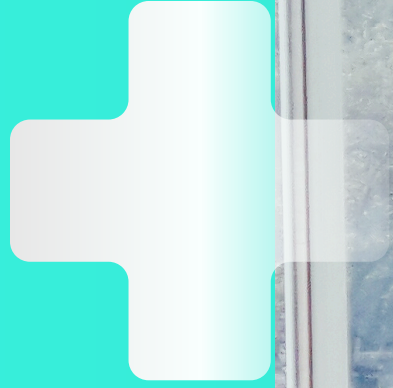
Guided by:- Mr. Swapnil Gadhave

19 JUNE 2025

Introduction

Hospitals rely on discharge procedures as essential operational functions that determine patient contentment, together with available hospital beds and operational effectiveness of the facility. The discharge procedures at Shalby Hospital which has 240 beds as a multi-specialty facility show major differences in handling patients who pay cash and those who use Third-Party Administrators (TPAs) for insurance coverage. Patients who pay cash complete their payments by direct out-of-pocket methods but experience payment delays because of manual billing procedures and payment conflicts. Insurance providers manage the payment process for TPA patients which causes multiple complications including pre-authorization requirements as well as claim validation and hospital-external insurer coordination. The different processes cause TPA patients to experience longer Turnaround Time (TAT) than cash patients, which negatively affects hospital throughput and resource utilization.





OBJECTIVE

- To study and document the discharge workflow at a multi-specialty hospital.
- To calculate and compare the discharge TAT for TPA and cash patients.
- To identify administrative and operational bottlenecks affecting discharge timelines.
- To recommend actionable strategies to minimize delays and streamline discharge processes.



RESEARCH QUESTIONS ?

Q How does the turnaround time of the discharge process differ between TPA and cash-paying patients at Shalby Hospital?

Q What are the main reasons that lead to prolonged discharge time in each patient group?

Q Which measures should Shalby Hospital implement to enhance efficiency through decreased discharge turnaround times?

LITERATURE REVIEW

Author	Title	Key Findings
Kumari(2012)	Delays in Manual Billing for Cash Patients	Manual invoice generation leads to discharge delays of 1–2 hours; automation recommended to reduce billing conflicts.
Tak(2013)	Insurance-Related Administrative Complexity	Insurance processes like pre-auth and claim verification increase discharge TAT; TPAs add layers of approval, causing delays.
Phillips & Simmonds(2013)	Root Cause Analysis in Healthcare	Supports fishbone diagram use to resolve hospital inefficiencies; identifies systemic problems such as outdated software and lack of trained staff.
Kaur(2017)	Discharge Coordination in Multispecialty Hospitals	Hospitals struggle to manage TPA discharges efficiently; confirms TPA patients face more complex discharge processes than cash patients.
Human Konnect(2017)	Automation in Hospital Discharge Processes	Automation can reduce discharge TAT by 30%; supports use of EHR and integrated systems to streamline processes.
Shukla & Upadhyay(2018)	Impact of Pre-Authorization on Discharge Delays	Pre-authorization and TPA claim validation can delay discharge by up to 24 hours; effective communication and early submission are key to reducing delays.

METHODOLOGIES

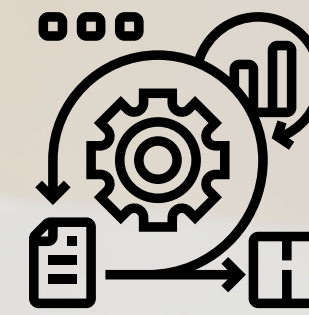
1 DATA COLLECTION METHODS

- **PRIMARY DATA:** THE STUDY USES HMIS RECORDS, PATIENT DOCUMENTATION FOR COLLECTION OF DATA FROM SHALBY HOSPITAL FOR ITS RETROSPECTIVE DATA EVALUATION.
- **SECONDARY DATA:** THE RESEARCH DEPENDS ON PEER-REVIEWED ARTICLES, ALONG WITH HOSPITAL REPORTS OBTAINED THROUGH LITERATURE REVIEW.

2 RESEARCH DESIGN

THIS STUDY USES A MIXED-METHODS APPROACH, COMBINING QUANTITATIVE ANALYSIS OF DISCHARGE TAT FROM HOSPITAL RECORDS WITH QUALITATIVE INSIGHTS FROM STAFF INTERVIEWS. THIS INTEGRATED METHOD PROVIDES A BALANCED UNDERSTANDING OF BOTH MEASURABLE DISCHARGE PATTERNS AND THE OPERATIONAL CHALLENGES CONTRIBUTING TO DELAYS.

METHODOLOGIES



3 INCLUSION CRITERIA

THE STUDY INCLUDES PATIENTS DISCHARGED FROM GENERAL WARDS WHO ARE EITHER CASH-PAYING PATIENTS OR TPA PATIENTS WHILE EXCLUDING CRITICAL CARE PATIENTS.

4 EXCLUSION CRITERIA

THE RESEARCH EXCLUDES PATIENTS WHO HAVE INCOMPLETE RECORDS AND THOSE WHO EXPERIENCE MEDICAL CONDITIONS THAT LEAD TO PROLONGED HOSPITAL STAYS.

5 SAMPLE SIZE

THE RESEARCH INCLUDES 400 TOTAL PATIENT CASES WHERE 200 BELONG TO TPA PATIENTS AND 200 TO CASH PATIENTS.

6 STUDY PERIOD

THE INVESTIGATION SPANS FROM APRIL 2025 THROUGH JUNE 2025.



Factors affecting discharge TAT

Common Factors (Both TPA & Cash Patients)

Late Discharge Order by Doctor
Incomplete Discharge Documentation
Nursing Delays in Patient Preparation
Pharmacy-Related Hold-ups
Final Billing and Reconciliation Delays
Unavailability of Attendants/Patient Readiness

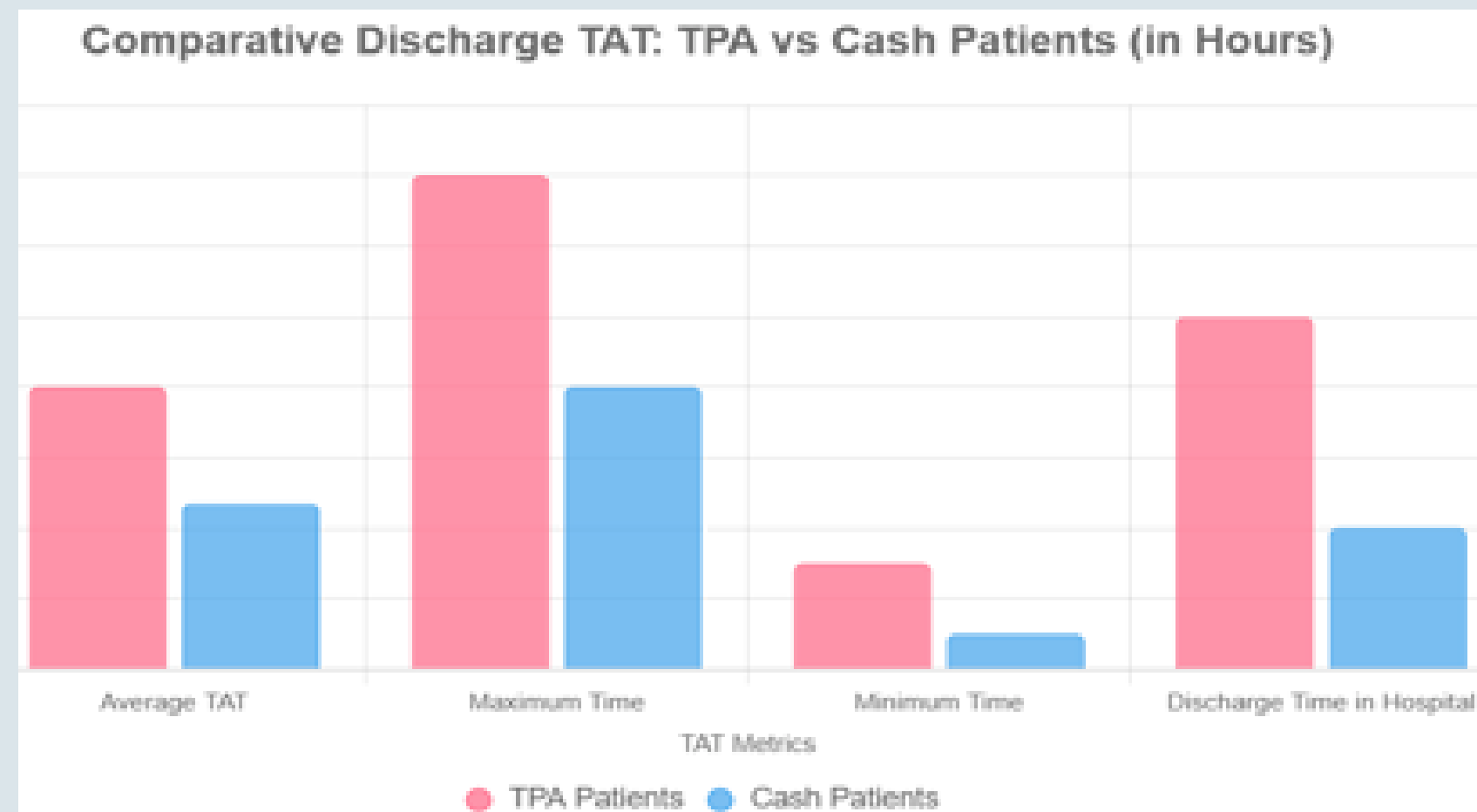
TPA-Specific Factors

Pre-Discharge Authorization Delay
TPA Response/Approval Time
Manual Coordination with TPA Teams

Cash Patient-Specific Factors

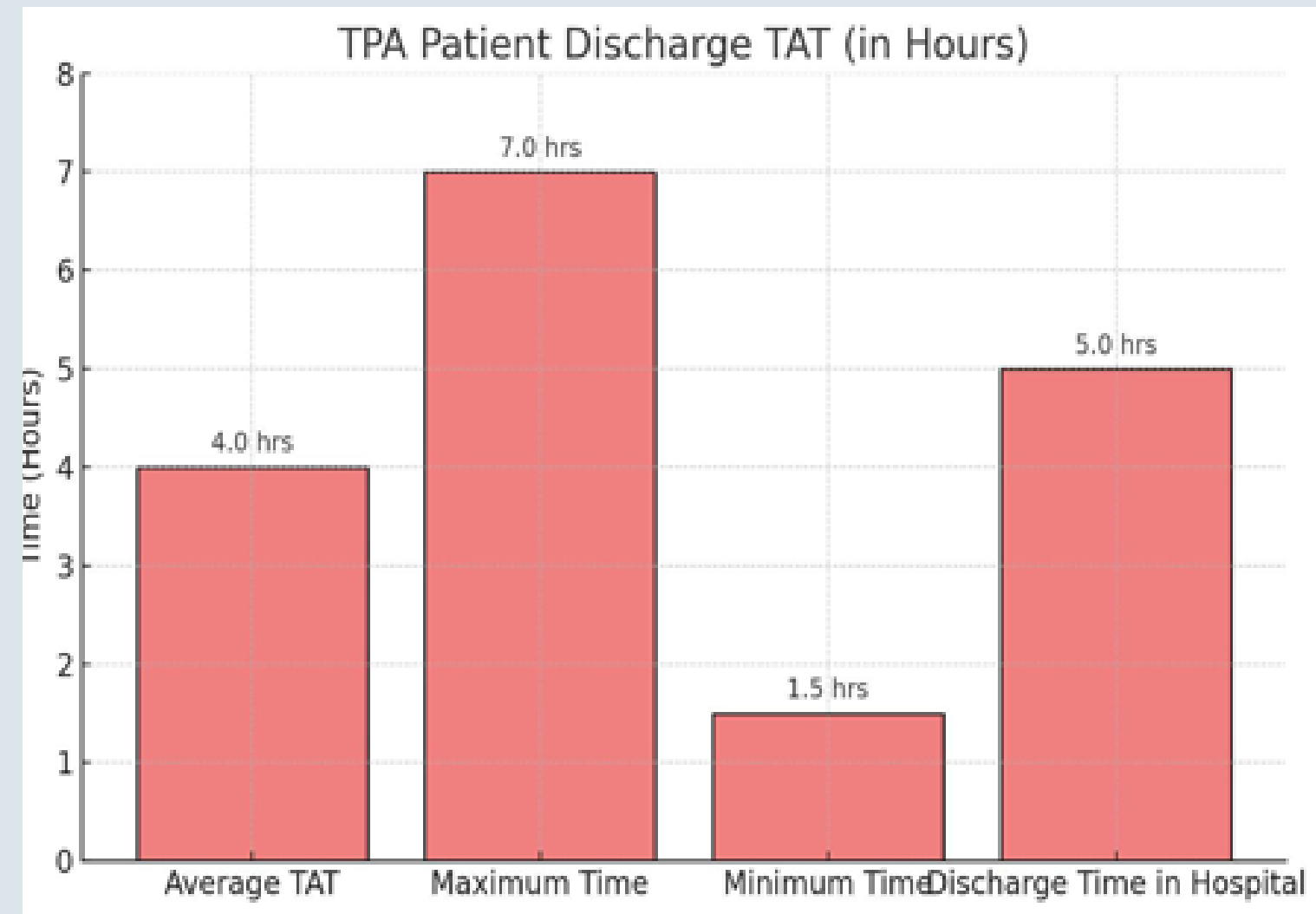
Manual Payment Processing at Billing Counters,
billing Disputes and Explanation Delays
Time Taken for Discount Requests and Refunds

ANALYSIS AND RESULTS



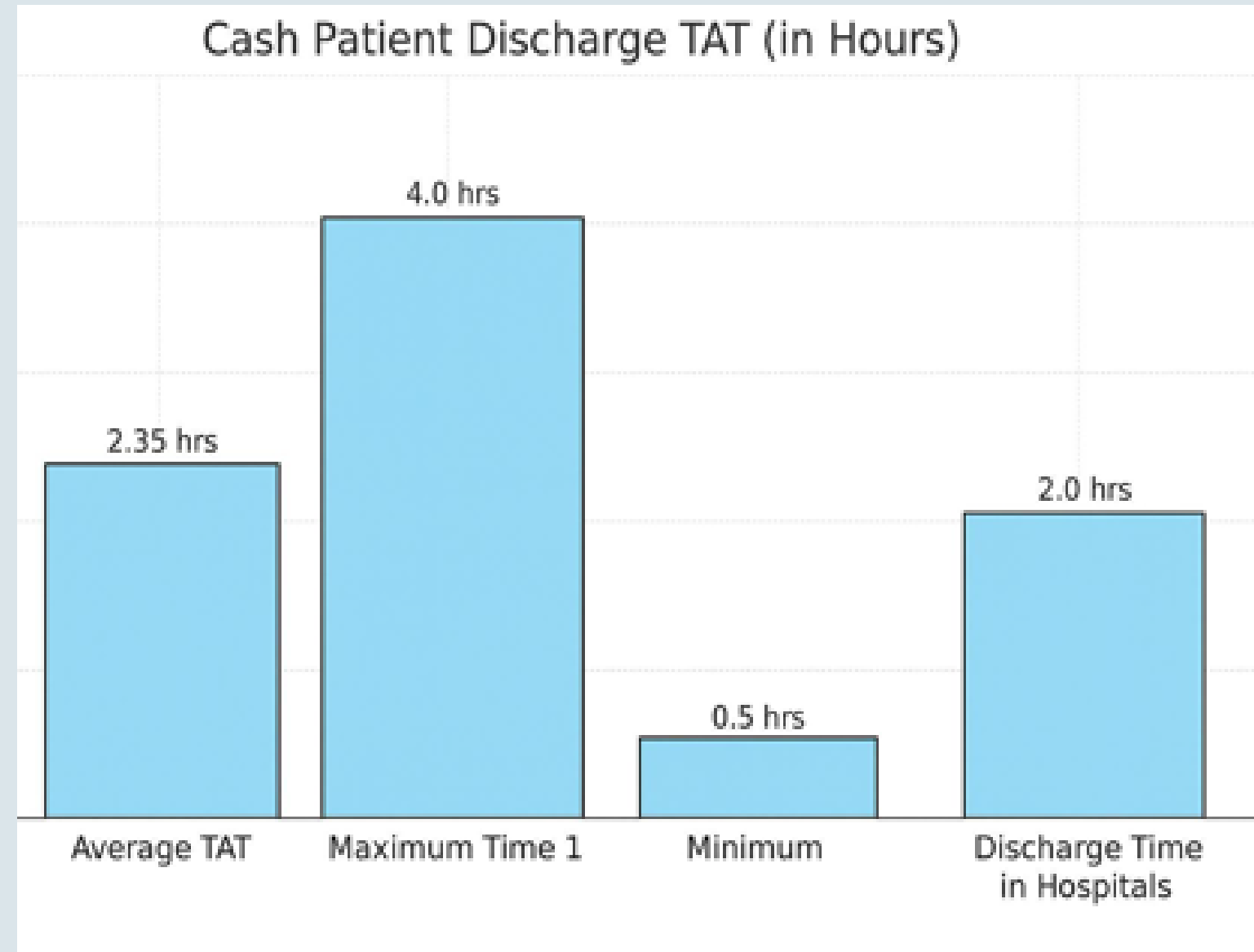
- Turnaround Time Comparison: Cash vs. TPA Patients
- TPA patients take 1.5 hours longer on average than Cash patients.
- Delay mainly due to insurance approvals and documentation.
- Cash discharges are quicker due to simpler, internal processes.
- Highlights need for TPA workflow streamlining to reduce TAT.

ANALYSIS AND RESULTS



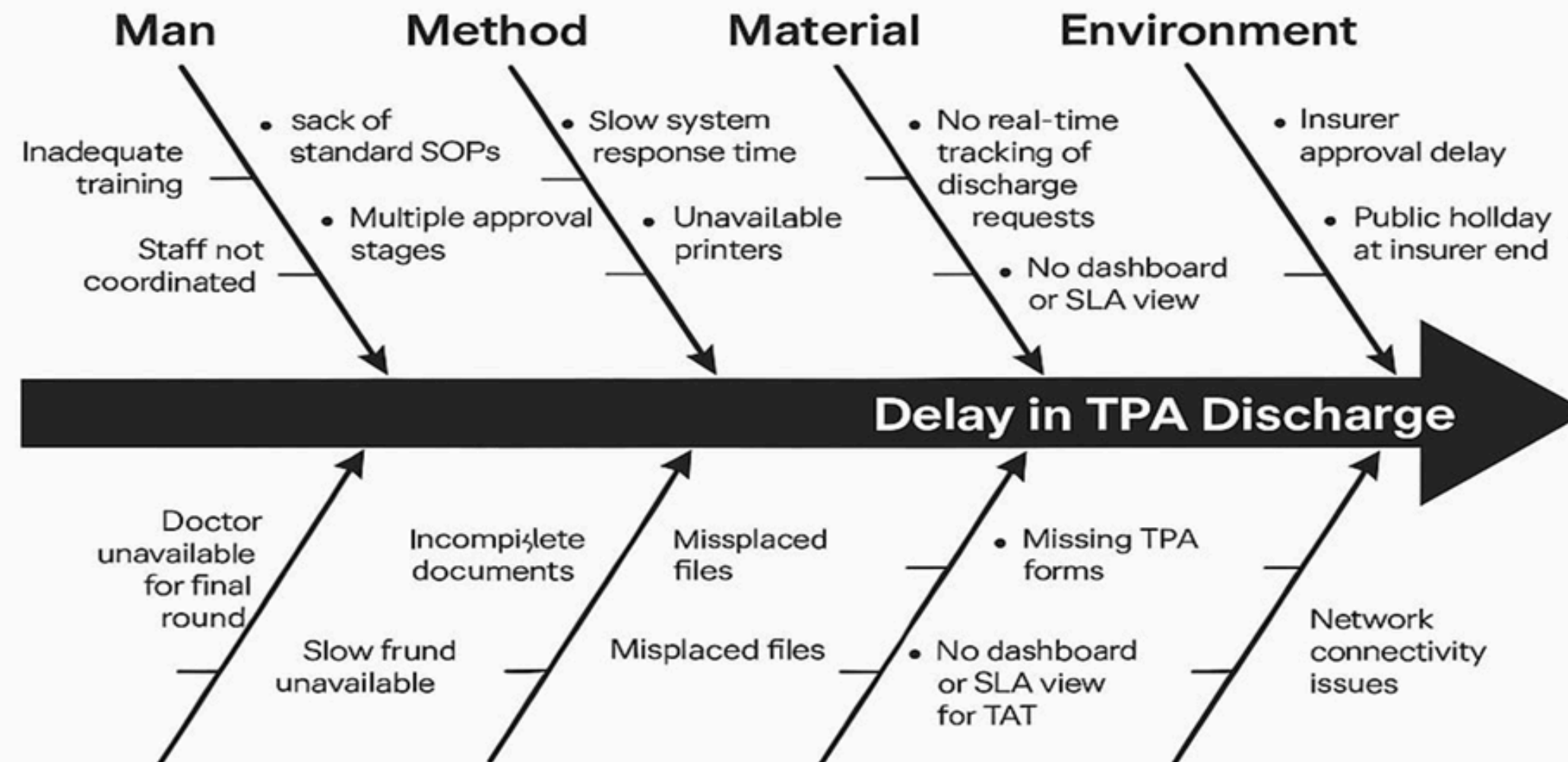
- Average TAT: 4.0 hrs | Max: 7.0 hrs | Min: 1.5 hrs
- Ideal-hospital discharge time: 5.0 hrs
- TAT is significantly higher than for Cash patients, indicating delays.
- Long maximum TAT reflects dependency on external approvals.
- In-hospital time exceeding average TAT suggests inefficiencies in internal coordination and documentation.

ANALYSIS AND RESULTS



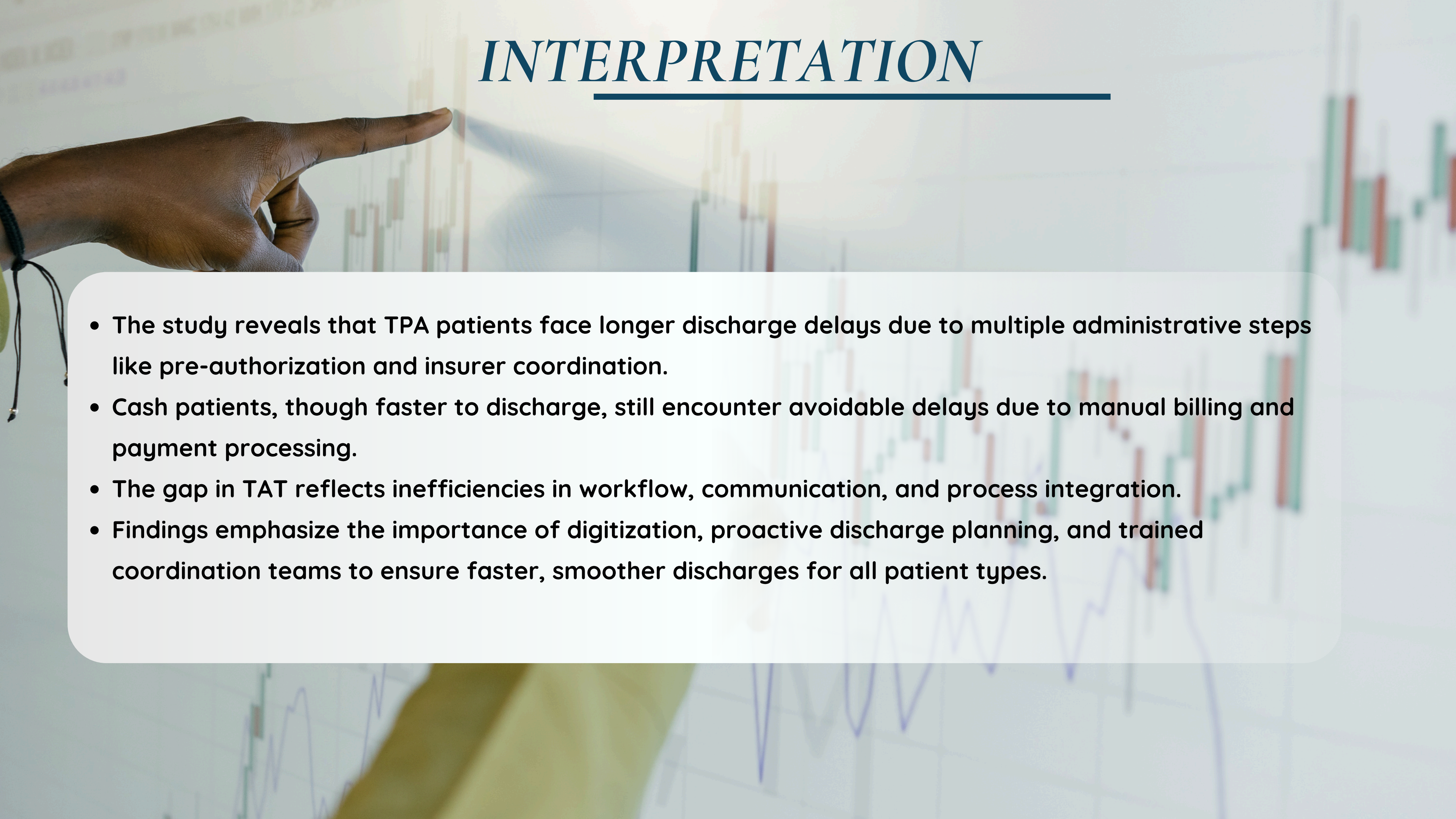
- Average TAT: 2.35 hrs | Max: 4.0 hrs | Min: 0.5 hrs
- IDEAL-hospital discharge time: 2.0 hrs
- Discharges are generally efficient, with minimal delays.
- Short minimum TAT shows potential for rapid processing.
- A 0.35 hr gap suggests billing and pharmacy steps are manageable.

ROOT CAUSE ANALYSIS



This quality improvement tool categorizes the contributing factors into five major domains: Man, Method, Material, Environment, and Machine (implicitly covered under system and network issues). Each category lists specific issues that contribute to extended discharge turnaround time (TAT) for insured patients.

INTERPRETATION

- 
- A hand with a dark complexion points towards the left side of the frame. The background is a blurred image of a financial chart with various colored bars (green, red, yellow) and a blue line graph. The overall tone is professional and analytical.
- The study reveals that TPA patients face longer discharge delays due to multiple administrative steps like pre-authorization and insurer coordination.
 - Cash patients, though faster to discharge, still encounter avoidable delays due to manual billing and payment processing.
 - The gap in TAT reflects inefficiencies in workflow, communication, and process integration.
 - Findings emphasize the importance of digitization, proactive discharge planning, and trained coordination teams to ensure faster, smoother discharges for all patient types.

DISCUSSIONS

Discharge TAT Comparison – Cash vs TPA

- TPA Avg. TAT: 4.0 hrs | Cash Avg. TAT: 2.35 hrs
- Main reasons for prolonged TPA TAT: 45% due to external approvals (2–3 hrs delay)
- Cash Delays: Manual billing adds 1–1.5 hrs

Impact:

- Bed occupancy → Delays reduce availability

Causes Identified:

- Manual TPA process, outdated billing software, poor staff training
- Lack of EHR & real-time dashboards on SRIT

Call to Action:

- Streamline TPA processes
- Lack of staff training

RECOMMENDATIONS



Digitize and Integrate Hospital Processes

Implement comprehensive digital solutions such as electronic health records (EHR), automated billing, and real-time bed management systems. These tools synchronize clinical and financial data, reduce documentation errors, and accelerate both cash and TPA discharge workflows. Leveraging AI-driven analytics further enables hospitals to proactively allocate resources and anticipate discharge delays, resulting in faster, more accurate, and patient-centered care.



Establish Dedicated Teams and Counters for Patient Flow

Create specialized teams for TPA coordination and establish dedicated payment counters for cash-paying patients. TPA liaison teams work directly with insurers to expedite approvals, aiming to bring discharge clearance times down to under an hour. Dedicated cash counters reduce wait times and streamline payment processes, while pre-discharge billing ensures final settlements can begin before treatment ends, minimizing delays at discharge.

CONCLUSION

- **Significant Discharge Delays Identified**
 - TPA-insured patients experienced much longer discharge turnaround times (average 4 hours) compared to cash-paying patients (average 2.35 hours).
 - Delays for TPA patients were primarily due to external approvals, communication gaps, and manual billing systems.
- **Operational Impact**
 - Prolonged discharge times led to reduced bed turnover, delayed admissions, and lower hospital throughput.
 - Administrative inefficiencies and lack of process automation were key contributors to these delays.
- **Overall Benefit**
 - Streamlining discharge processes will reduce TAT, improve patient satisfaction, and enhance operational efficiency for Shalby Hospital.

REFERENCES

- 1.https://www.researchgate.net/publication/322434054_Predictive_Modelling_for_Turn_Around_Time_TAT_of_Discharge_Process_for_Insured_Patients_in_a_Corporate_Hospital_of_Pune_City
Kumar J. A study of the causes of delay in patient discharge process in a large multi-specialty hospital with recommendations to improve the turnaround time. QAI Journal for Healthcare Quality and Patient Safety. 2022 Jan 1;3(1): 13-20.
2. <https://eprajournals.com/IJMR/article/10521/>
3. https://www.researchgate.net/publication/343050940_A_Study_to_Assess_the_Factors_Contributing_to_Delay_in_Discharge_Process_in_a_Teaching_Hospital Micallef A, Buttigieg SC, Tomaselli G, Garg L. Defining delayed discharges of inpatients and their impact in acute hospital care: a scoping review. International Journal of Health Policy and Management. 2022 Feb;11(2):103.
4. https://www.researchgate.net/publication/332142504_INSURED_PATIENTS%27_DISCHARGE_DELAYS_CAUSES_AND_SOLUTIONS Srivastava R, Stone BL, Patel R, Swenson M, Davies A, Maloney CG, Young PC, James BC. Delays in discharge in a tertiary care pediatric hospital. Journal of Hospital Medicine: An Official Publication of the Society of Hospital Medicine. 2009 Oct;4(8):481-5.
5. An Official Publication of the Society of Hospital Medicine. 2009 Oct;4(8):481-5.
- 6.Rajasekaran RB, Whitwell D, Cosker TDA, Gibbons CER. The effect of discharge processes on hospital length of stay and patient satisfaction. J Orthop Surg (Hong Kong). 2017 May-Aug;25(2):2309499017713936. Available from: <https://journals.sagepub.com/doi/10.1177/2309499017713936>
- 7.Nyaho Medical Centre. Quality Improvement Project: Reducing discharge delays using fishbone analysis. 2022. Available from: <https://www.nyahomedical.com/quality-improvement-discharge-delays/>
- 8.John A, Rao KD. Hospital discharge planning in India: current practices and future directions. Indian J Med Ethics. 2019;4(2):78-83. Available from: <https://ijme.in/articles/hospital-discharge-planning-in-india-current-practices-and-future-directions/>
9. Chhabra P, Sharma A, Kannan AT. Factors affecting discharge delays in tertiary care hospitals in India. J Family Med Prim Care. 2018;7(4):769-74. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6142069>
- 10.Nair D, Shah R, Patil S. Turnaround time analysis of patient discharge process in a tertiary care hospital. J Healthc Qual Res. 2022;37(1):34-9. Available from: <https://www.sciencedirect.com/science/article/pii/S2603647921000729>
- 11.Ghosh S, Gupta ND. Hospital discharge process and its impact on patient flow. Indian J Public Health. 2018;62(2):137-41. Available from: <https://www.ijph.in/article.asp?issn=0019-557X;year=2018;volume=62;issue=2;spage=137;epage=141;aualast=Ghosh>
12. Sood N, Wagner Z, Huckfeldt PJ, Haviland AM, Mehrotra A. Patient experience with discharge processes in India: a cross-sectional study. BMJ Open. 2020;10(4):e034982. Available from: <https://bmjopen.bmj.com/content/10/4/e034982>
- 13.Agarwal R, Gupta D, Mishra S. Hospital discharge process improvement: A quality initiative. Indian J Crit Care Med. 2019;23(6):283-7. Available from: <https://www.ijccm.org/article.asp?issn=0972-5229;year=2019;volume=23;issue=6;spage=283;epage=287;aualast=Agarwal>
14. Bhat R, Jain N. Analysis of discharge delays in a tertiary care hospital in India. Health Policy Plan. 2017;32(9):1241-8. Available from: <https://academic.oup.com/heapol/article/32/9/1241/4097786>
- 15.Sood N, Wagner Z, Huckfeldt PJ, Haviland AM, Mehrotra A. Patient experience with discharge processes in India: a cross-sectional study. BMJ Open. 2020;10(4):e034982. Available from: <https://bmjopen.bmj.com/content/10/4/e034982>



 **THANK YOU** 
 