A Study On The Contributing Factors Responsible For Claim Denials In A Hospital Setting

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INTRODUCTION

Health insurance plays a pivotal role in shielding individuals from high healthcare costs by providing financial compensation for their medical expenses.

The volume and complexity of health insurance claims have increased dramatically.

In this environment, hospitals serve as mediators between patients and insurance providers, ensuring that the reimbursement process runs smoothly.

❑ What is Health Insurance Claims Management?

It is a systematic process of handling and settling insurance claims submitted by policyholders. It is an essential function in the insurance industry, which includes everything from the initial claim submission to the final settlement or denial.

❑ What is Health Insurance Claim Denial?

A claim denial occurs when an insurance company declines to cover a submitted claim in part or in full.

Claim denials have a detrimental impact on hospitals and they could also frustrate patients who may encounter unanticipated out-of-pocket payments, frequently without clear explanations.

Recent global and national data show an alarming increase in claims denials.

Incomplete documentation, coding errors, a lack of pre-authorization, and policy exclusions are among common reasons.

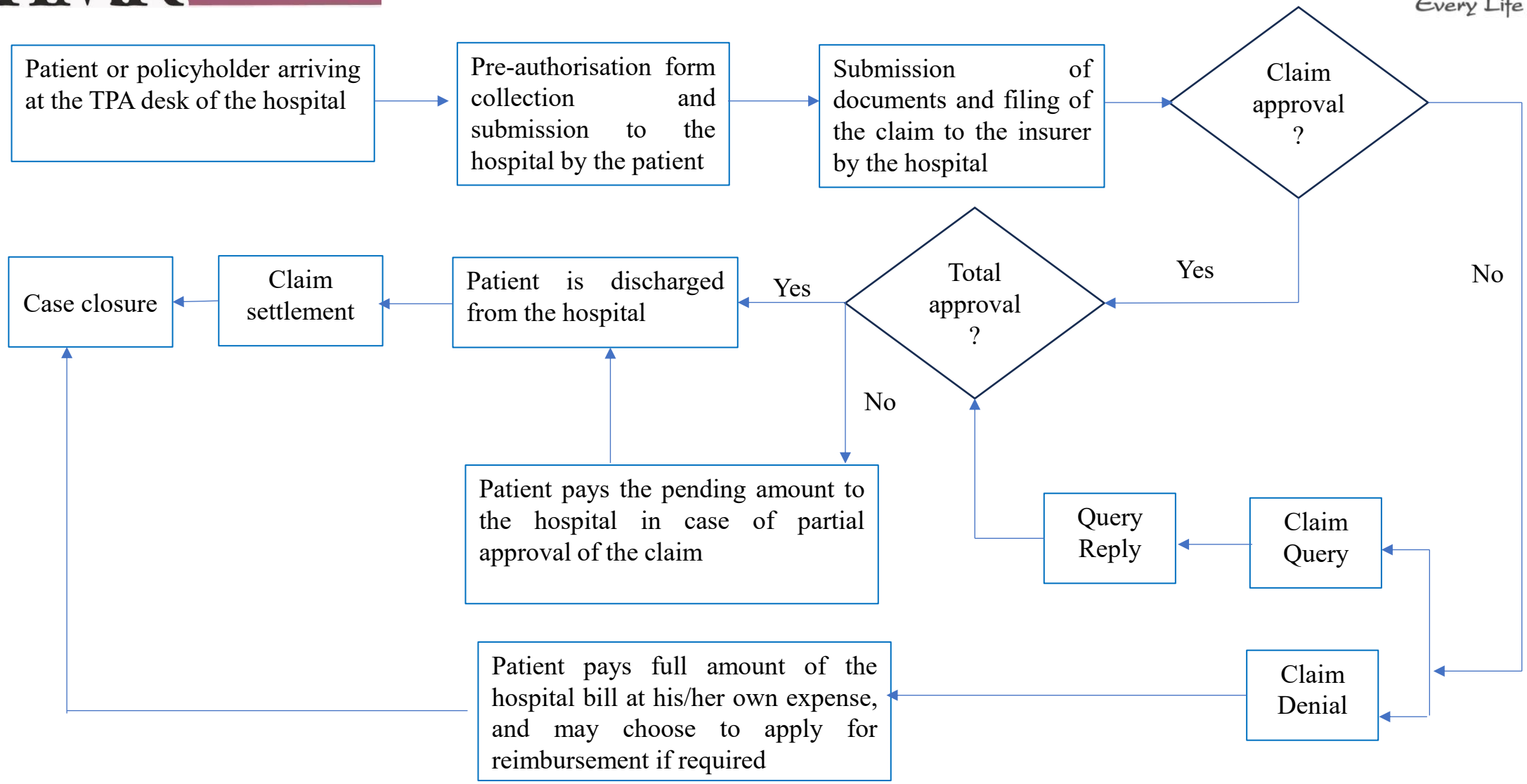


Figure 1. The Claim Management Process Flow at Kokilaben Hospital

REVIEW OF LITERATURE

Author(s) [Year]	Title	Study location	Sample size	Sampling technique	Findings and Summary
Rosenthal E (2023)	Health Insurance Claim Denials Are on the Rise, to the Detriment of Patients	United States	Not applicable (Narrative review)	Not applicable	Discusses the increasing trend of health insurance claim denials in the U.S., emphasizing administrative burdens and their impact on patients.
Poland L, Harihara S (2022)	Claims Denials: A Step-by-Step Approach to Resolution	United States	Not applicable (Narrative review)	Not applicable	It details the process healthcare providers can follow to identify the cause of claim denials. Key findings include that many denials result from administrative errors or incomplete documentation.. The article stresses the importance of a systematic approach to denial management for operational efficiency.
Raghupathi W, Raghupathi V (2021)	Leveraging IT to Improve Claims Management	Global	Not specified	Not specified	The authors review the impact of information technology and advanced analytics on claims processing. They find that IT-enabled solutions reduce errors, accelerate processing time, and enable predictive analytics to anticipate and prevent claim denials. Case studies demonstrate measurable improvements in claim accuracy underscoring IT's vital role in modernizing claims management.

Author(s) [Year]	Title	Study location	Sample size	Sampling technique	Findings and Summary
Goudarzi R et al. (2020)	Rate and Causes of Claim Denials in Iranian Hospitals: A Systematic Review and Meta-analysis	Iran	16 case studies included	Systematic sampling of published studies from multiple databases (2008–2021)	This meta-analysis synthesizes studies from Iranian hospitals to determine the prevalence and causes of claim denials. The main reasons identified include incomplete documentation, non-compliance with insurer policies, and coding errors.
Yusuf TO, Ajemunigbohun SS, Alli GN (2017)	A Critical Review of Insurance Claims Management	Nigeria	200 employees	Purposive sampling	Focusing on selected Nigerian insurance companies, this review identifies challenges such as fraudulent claims, inefficient claims processing, and poor regulatory oversight. Findings highlight the need for stronger fraud detection mechanisms and streamlined workflows to reduce the claim denial rate.
Jaworski P (2015)	Sources of Insurance Claim Denials within a Regional Medical Group	United States	Not specified	Purposive selection of claims data	Investigates the primary causes of claim denials in a regional medical group. Findings reveal that operational inefficiencies, poor communication between healthcare providers and insurers, and lack of staff training contribute to high denial rates.

❑ Purpose of this study:

Despite increased research on claim denials in Western healthcare systems, there is little literature on the specific causes and patterns of denials in Indian hospital settings. Indian hospitals have unique claims management challenges due to different insurer practices, diverse policy designs, and varying TPA interfaces. There is a need for localized research to understand and address these issues.

❑ Research question:

What are the key factors contributing to claim denials by insurers in a hospital setting?

❑ Aim and Objectives of the study:

This study aims to identify the key factors contributing to claim denials at the TPA desk of Kokilaben Dhirubhai Ambani Hospital, Mumbai, and analyze denial trends across selected insurance companies to propose actionable strategies for reducing denial rates in hospital settings.

Objectives:

i. To identify trends in claim denials among different insurance companies in a hospital setting.

ii. To identify the key factors contributing to claim denials by insurers in a hospital setting.

iii. To propose actionable strategies to minimize claim denials

METHODOLOGY

❑ **Research design:**
Cross-sectional descriptive study.

❑ **Study setting:**
Kokilaben Dhirubhai Ambani Hospital, Mumbai.

❑ **Study population:**

- **Inclusion criteria**:
  - Denied claims recorded in the hospital's MIS, between November 1, 2024 and April 30, 2025.
  - Denied claims involving hospitalization, surgeries, and daycare procedures.
  - Claims that were initially denied and later approved after resubmission or rectification.
- **Exclusion criteria**:
  - Denied claims of insurance companies other than the ones selected for the study.
  - Denied claims where the policyholder withdrew the cashless facility after filing the claim.

❑ **Study tools:**

WinClient software (Kokilaben hospital's MIS)

❑ **Study duration:**
10th March 2025 to 31st May 2025.

❑ **Sample size:** 630

❑ **Sampling technique:** Convenience sampling.

❑ **Data collection and analysis:**

Data for this study were collected from the hospital information system, covering insurance claim records from nine companies between November 1, 2024, and April 30, 2025. Denied claims were classified under seven common denial reasons. Microsoft Excel was used for quantitative analysis through pivot tables, frequency counts, and charts.

RESULTS

A total of **5435 claims were processed** by these nine insurance companies over six months, out of which 4805 were approved, while **630 cases were denied**.

Table 1. Insurance Company-wise Claim Outcomes (1st November 2024-30th April 2025)

Name of the Insurance Company	Total no. of claims processed	Total no. of claims approved	Total no. of claims denied
ICICI Lombard	390	350	40
HDFC ERGO	783	689	94
TATA AIG	179	158	21
Aditya Birla	228	196	32
Star Health	1514	1300	214
Care Health	740	607	133
New India Assurance	1249	1186	63
United India	139	125	14
National Insurance	213	194	19

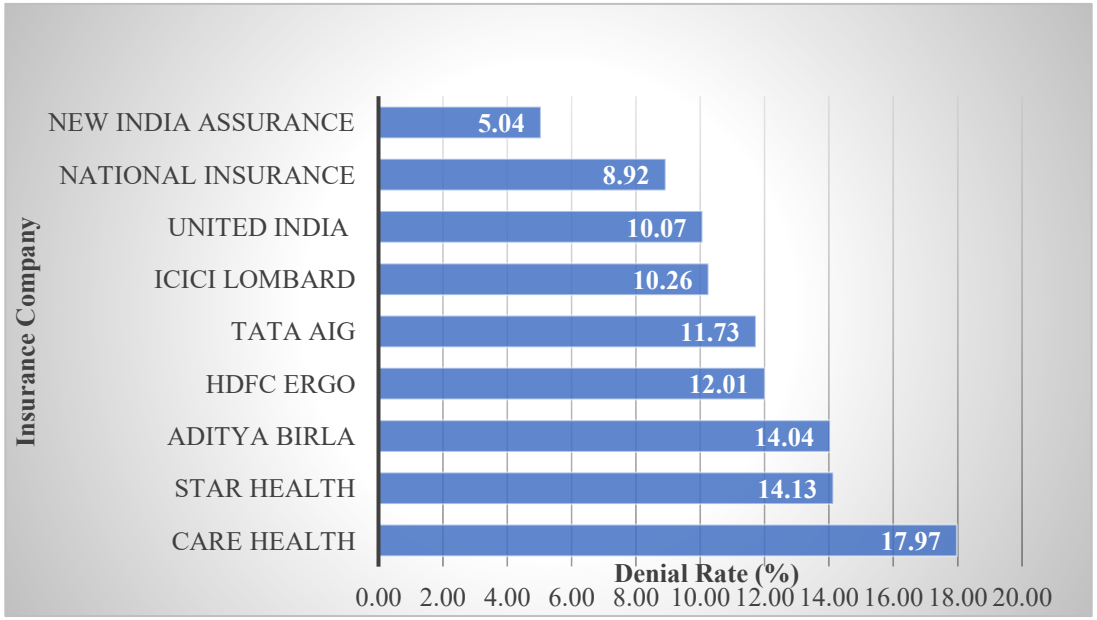


Figure 2. Denial rates (%) of the chosen insurance companies (1st November 2024-30th April 2025)

- Care Health Insurance Company Limited had the highest denial rate at 17.97%, followed by Star Health and Allied Insurance Co. Ltd. and Aditya Birla.
- The New India Assurance Co. Ltd and National Insurance Company Limited showed relatively lower denial rates.

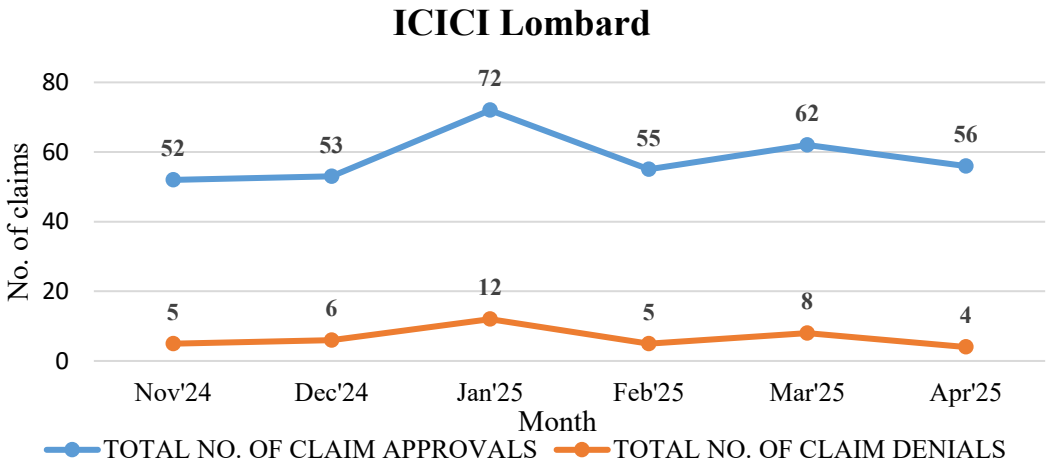


Figure 3. Month-wise Trend in Claim Approvals and Denials – ICICI Lombard (November 2024 to April 2025)

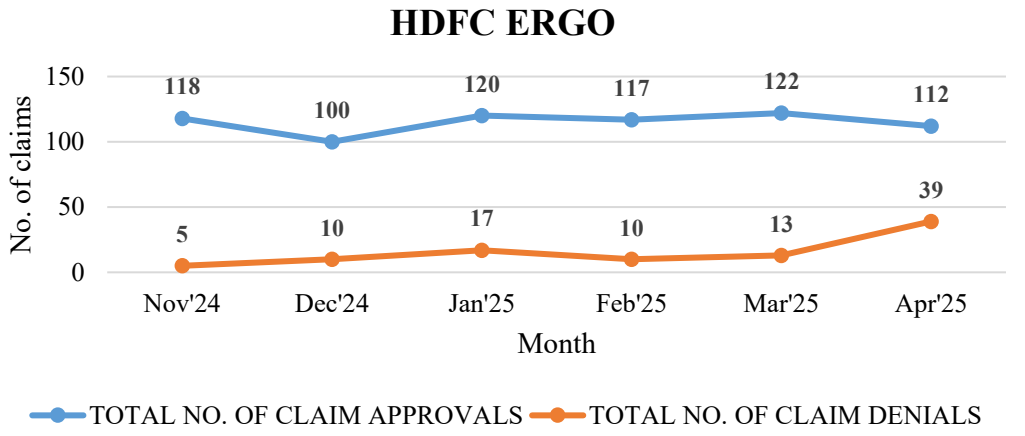


Figure 4. Month-wise Trend in Claim Approvals and Denials – HDFC ERGO (November 2024 to April 2025)

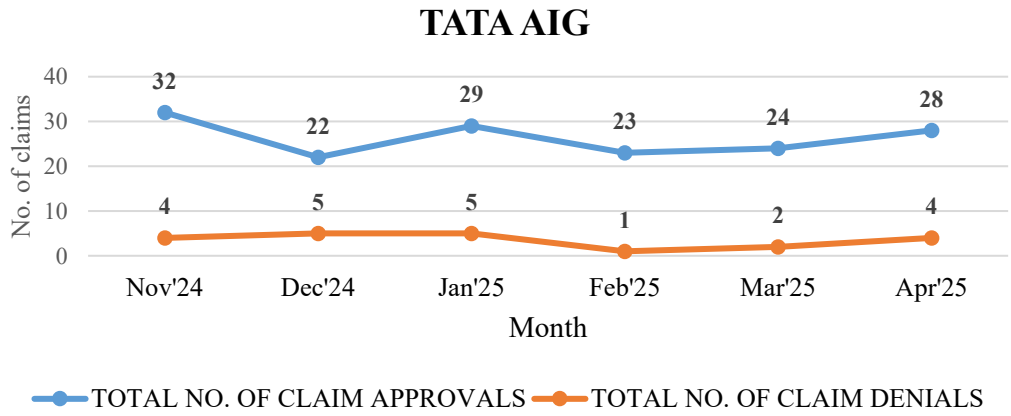


Figure 5. Month-wise Trend in Claim Approvals and Denials – TATA AIG (November 2024 to April 2025)

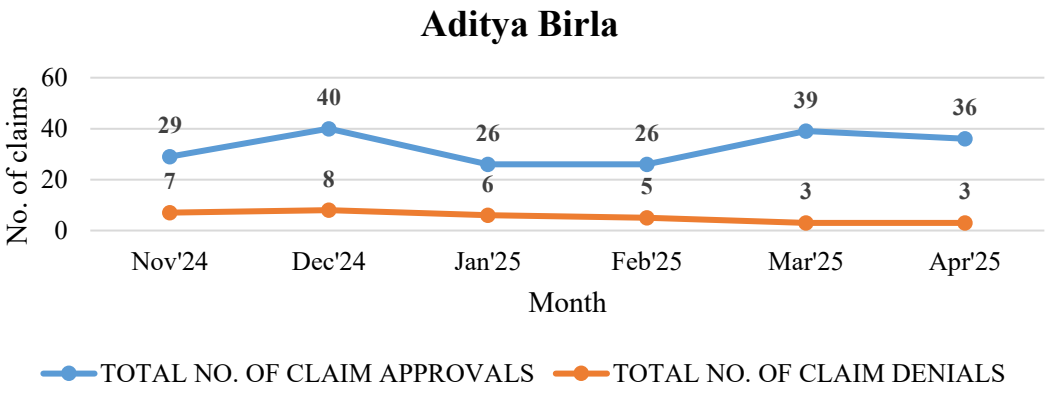


Figure 6. Month-wise Trend in Claim Approvals and Denials – Aditya Birla (November 2024 to April 2025)

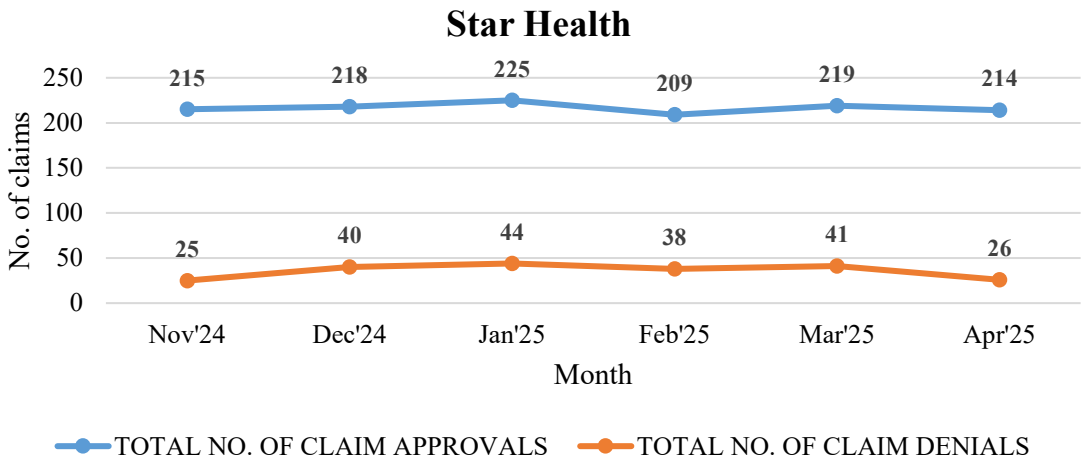


Figure 7. Month-wise Trend in Claim Approvals and Denials – Star Health (November 2024 to April 2025)

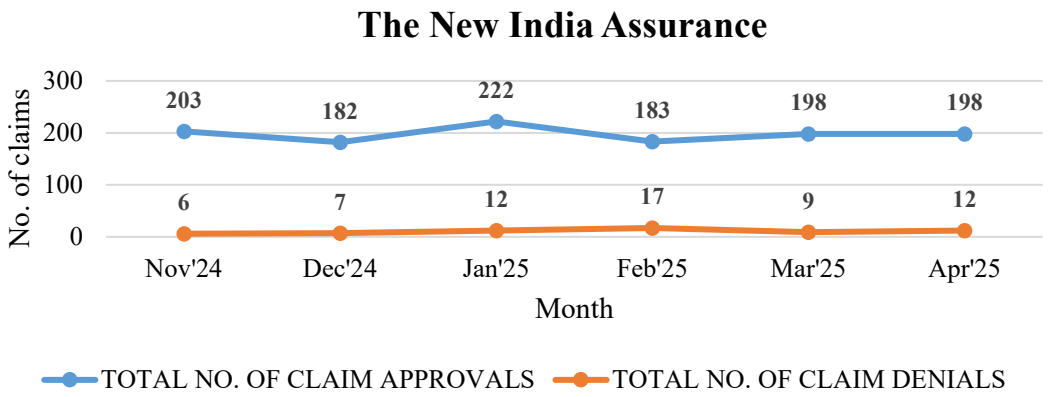


Figure 9. Month-wise Trend in Claim Approvals and Denials – New India Assurance (November 2024 to April 2025)

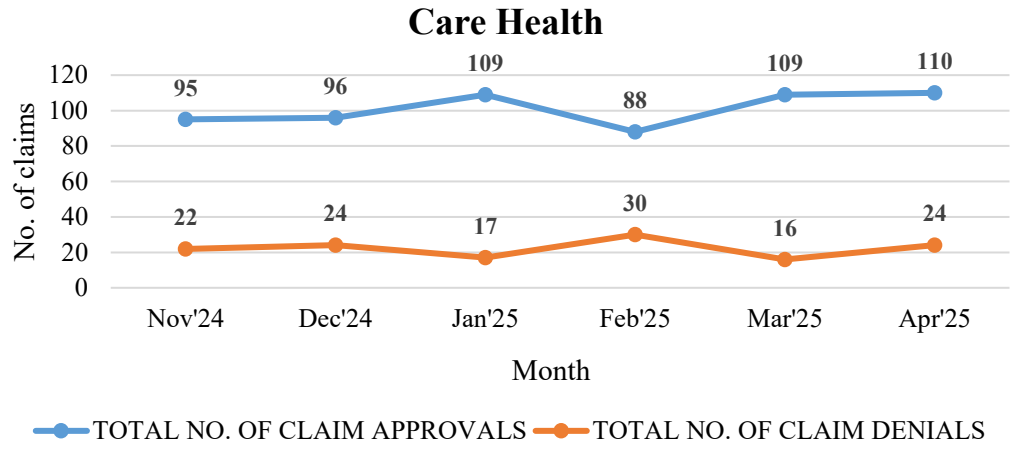


Figure 8. Month-wise Trend in Claim Approvals and Denials – Care Health (November 2024 to April 2025)

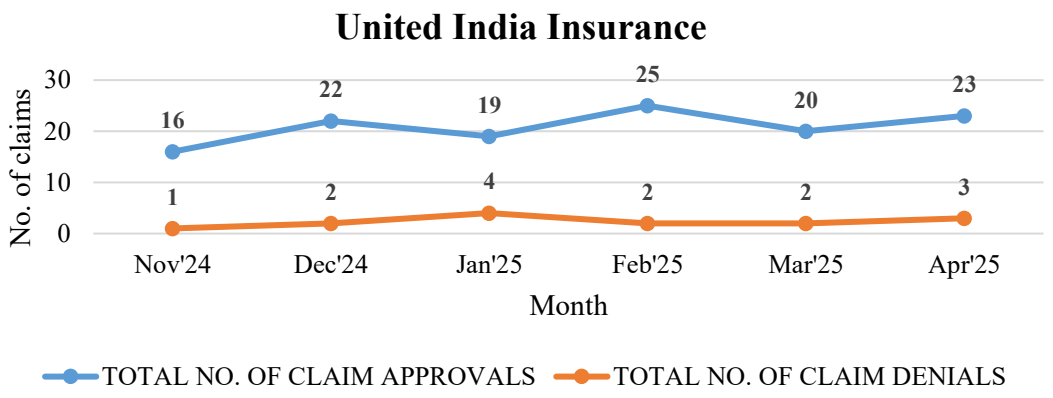


Figure 10. Month-wise Trend in Claim Approvals and Denials – United India (November 2024 to April 2025)

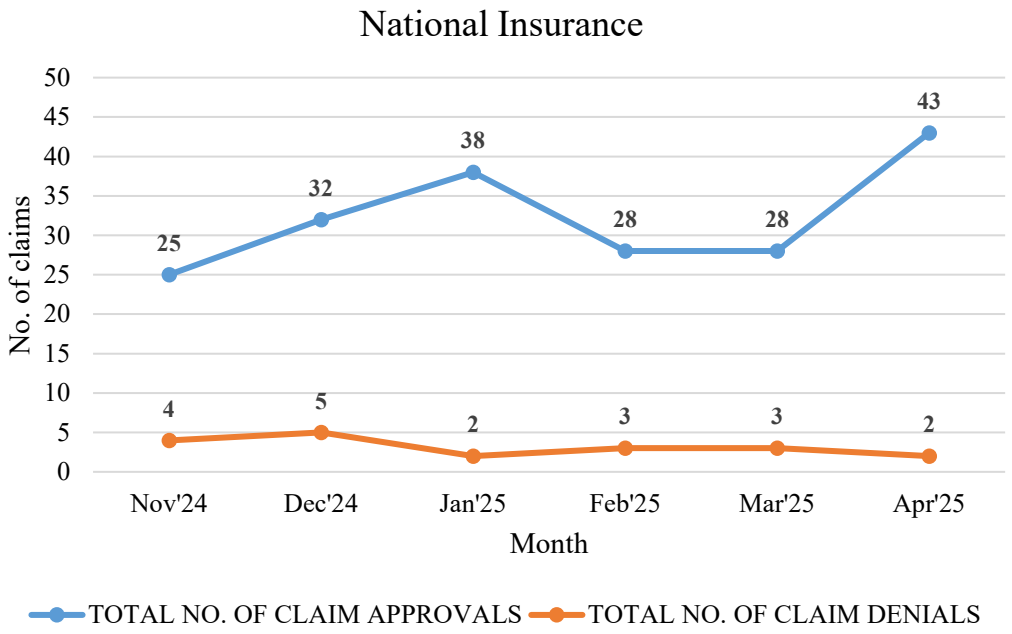


Figure 11. Month-wise Trend in Claim Approvals and Denials – National Insurance (November 2024 to April 2025)

❑ Key Findings:

- Denials spiked in December 2024, January 2025, and March 2025.
- Higher denial volumes were frequently observed when insurers handled a greater number of total claims, indicating a link between claim load and error rates.
- Care Health and Star Health had the highest monthly denial peaks.
- TATA AIG, United India, and Aditya Birla consistently reported low absolute numbers for both approvals and denials.
- New India Assurance showed a relatively stable trend with high approvals (~200+) and consistently low denials.

The contributing factors for claim denials were identified as follows:

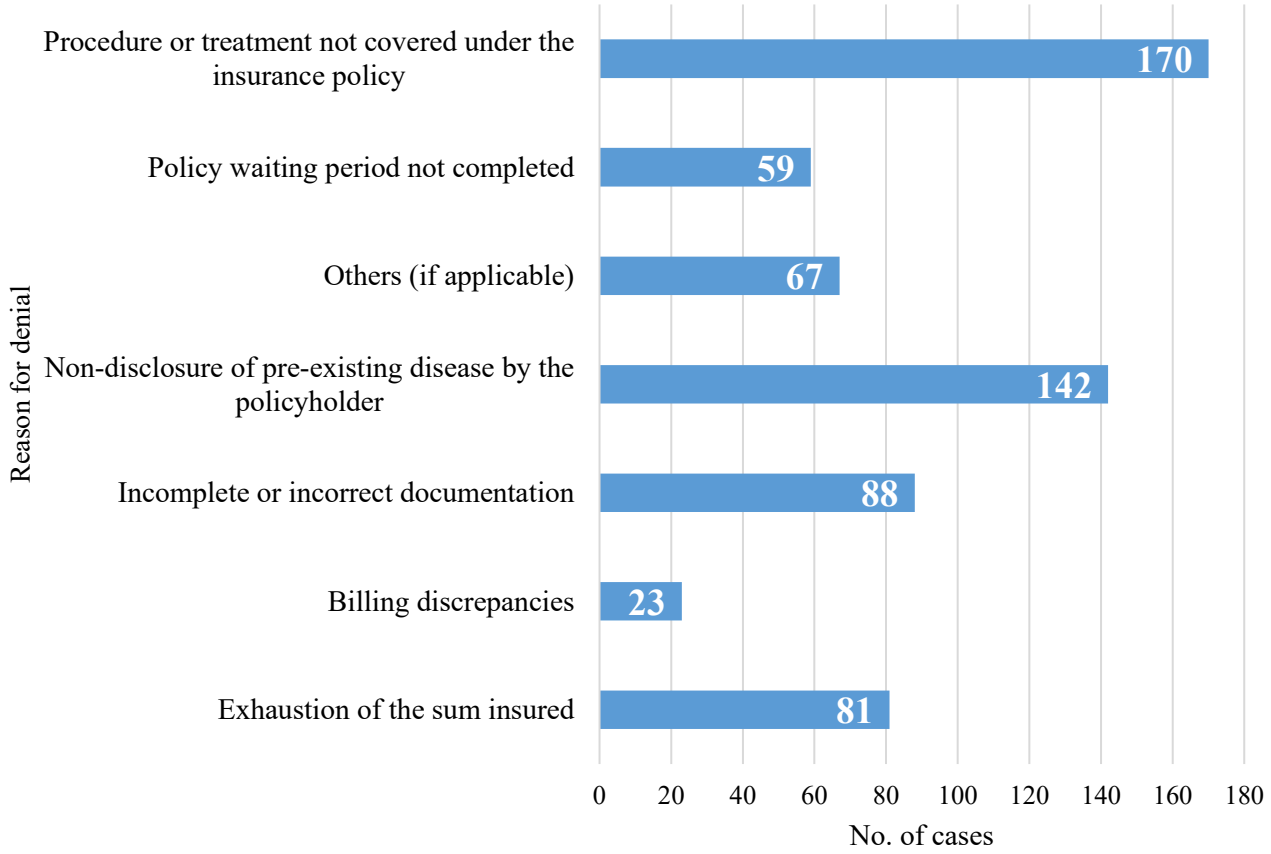


Figure 12. Distribution of health insurance claim denial reasons identified at the TPA desk of Kokilaben hospital (n=630)

❑ Key Findings:

- The most common reason for denial was "Procedure or treatment not covered under the insurance policy" (170 cases), implying gaps in policyholder awareness or miscommunication.
- Non-disclosure of pre-existing diseases (140+) and documentation errors (80+) were the next most frequent causes, suggesting administrative and customer transparency issues.
- Billing discrepancies were the least stated reason (23 cases), reflecting effective hospital billing practices.

DISCUSSION

- Inconsistent Denial Rates Across Insurers:

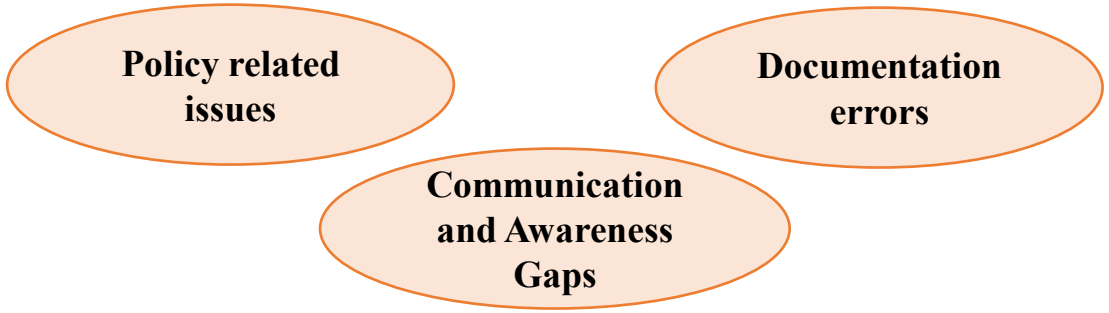
Denial rates varied from 5.04% (New India Assurance) to 17.97% (Care Health Insurance), indicating non-standardized claim adjudication process across insurance companies.

- Monthly Denial Trends:

Spikes observed in December, January, and March suggest the impact of:

- Policy renewal cycles.
- Seasonal increase in hospital admissions.
- End-of-year administrative backlog/delays.

Further, an analysis of 630 denied claims revealed several denial reasons that can be broadly categorized under 3 groups:



❑ Opportunities for improvement include:

- Patient understanding of insurance coverage and exclusions.
- Completeness and accuracy of documentation and billing
- Coordination between hospital departments, TPAs, and insurers.
- Clarity in interpreting and applying policy terms.
- Standardized and timely claim adjudication process.

RECOMMENDATIONS

❑ For Hospitals:

- Train staff on insurer-specific documentation requirements and timely paperwork to avoid administrative burden.
- Enable TPA desks to conduct proactive verification through checklists.
- Facilitate patient education and communication.

❑ For Policyholders:

- Be aware of policy details and limitations, and ensure timely policy renewal.
- Disclose pre-existing conditions truthfully.
- Read policy terms and conditions carefully.

❑ For Insurers:

- Communicate policy terms, exclusions, and waiting periods in the insured's preferred language, if necessary.
- Collaborate closely with TPAs to streamline claims.
- Conduct policyholder education webinars.

❑ For Policymakers:

- Standardize claim denial codes across all insurers and hospitals to reduce confusion and ensure clear, transparent communication.
- Promote digital claim management systems for increased transparency and efficiency.

A patient educational video was made for the TPA desk, as one of the recommendations to simplify the pre-authorisation documentation process.

CONCLUSION

The study highlights that health insurance claim denials are largely driven by gaps in documentation, communication, and policy understanding. These issues are systemic and often preventable. Strengthening internal hospital processes, improving staff training, and enhancing coordination with TPAs and insurers are essential steps toward reducing denial rates. Additionally, educating patients about their policy terms and coverage by both insurers and hospitals can play a vital role in minimizing avoidable denials and improving the overall claim experience.

❑ Further scope of this study:

Future research could utilise multi-institutional data, and incorporate qualitative interviews with patients to explore the impact of denials on care-seeking behaviour and financial stress.

The study could consider patient perspectives, which will help deepen the understanding of communication gaps and policy understanding.

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