

# CHAPTER - 15

## RISK MANAGEMENT USING INCIDENT REPORTING SYSTEM- A STUDY OF SUPER-SPECIALTY HOSPITAL

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Ch.Id:- IIHMR/NSP/EB/TSLHSTIOE/2025/Ch-15

DOI: <https://doi.org/10.52458/9789349381452.nsp.2025.eb.ch-15>

### INTRODUCTION

Risk management is a process inculcated by various healthcare organisations in the present time to reduce errors in all the fronts of existing operational mechanisms, to ensure patient safety and improve patient delight. It also focuses on improving the efficiency and quality of services provided by the staff and ensure staff self-satisfaction and encouragement. The purpose of risk management eventually boils down to safeguarding patient safety and healthcare organisation's assets, accreditation, brand value and community standing and preventing financial stress of medical mal practices claims and anticipating the future requirements for best possible functioning of the organisation. Risk management in healthcare setting comprises of clinical and administrative systems, process and reports which are employed to detect, assess, Monitor, mitigate and prevent risk. Incident Reporting system is one of the means employed across various

organisations to bring about risk assessment and it forms a cornerstone in the process of risk management [1][2].

In numerous high-risk organizations, the utilization of incident reporting systems has proven indispensable for enhancing safety measures and facilitating organizational learning from adverse incidents, observed in sectors such as commercial aviation and the rail industry. Within the healthcare domain, incident reporting systems have become widespread, being employed by various healthcare organizations to systematically record adverse events and address patient safety concerns. The Joint Commission mandates the adoption and use of incident reporting systems in all hospitals. Furthermore, the Patient Safety Act has led to the establishment of a national database called the National Patient Safety Database (NPSD) to facilitate the sharing of information regarding adverse events. Incident reporting systems exhibit diversity in their structure and features, adapting to the specific needs of different healthcare organizations. They collect and archive reports of untoward events and patient safety-related incidents, documented by various hospital staff, including physicians, nursing personnel, and other relevant individuals [3].

These incidents encompass adverse occurrences, near-misses, sentinel events, and situations with the potential to cause harm to patients, staff, or the infrastructure of the organization. Completed reports typically include first-person narratives and detailed descriptions of the events, along with information on the impact on the patient and, if ascertainable, the root causes of the events. Incident reporting systems can manifest in different formats, ranging from paper-based systems with various forms such as medication error reporting forms, transfusion reaction forms, patient fall reporting forms, and general incident

reporting forms, to electronic systems operated through an online portal for registering incidents [4].

## **RESEARCH QUESTION**

1. What kind of Incident Reporting System was utilized by Amrita Hospital?
2. What were the most frequently identified risks through the Incident Reporting System (IRS), and what measures were implemented by the Hospital to alleviate these risks?

## **RESEARCH OBJECTIVES**

1. To gain insights into the incident reporting process at Amrita Super Specialty Hospital.
2. To analyse the types of incidents and adverse events reported in the Amrita Hospital incident management system.
3. To evaluate the shortcomings in the current incident management system utilizing Failure Mode and Effect Analysis (FMEA) and recommend corrective actions.

## **RESEARCH METHODOLOGY**

The study adopted a secondary data analysis design and was conducted at Amrita Hospital and Research Centre in Faridabad, Haryana. The study population included all staff members, both clinical and non-clinical, actively engaged in incident reporting. Over a three-month period from February 20, 2023, to May 20, 2023, the research utilized a sample size of 102 cases reported on the Amrita Hospital Incident Reporting System between October 2022 and March 2023, employing convenience sampling. The methodology employed both qualitative and

quantitative assessments, utilizing an MS-Excel-based study checklist.

Data collection involved retrieving information from the hospital's Incident Management database for January, February, and March 2023, and for October, November, and December 2022, data was gathered from preserved paper-based incident management forms within the hospital. A retrospective analysis, including Corrective and Preventive Actions (CAPA), was conducted using MS Excel. The inclusion criteria covered all incidents, irrespective of type and severity, reported between October 2022 and March 2023, while incidents not reported in the Incident database were excluded. Ethical considerations prioritized patient and staff privacy, obtaining verbal consent before formal feedback or incident reviews, and ensuring confidentiality at every stage of the study.

## **RESULTS AND DISCUSSION**

The incident reporting system at Amrita Hospital serves the purpose of documenting and detailing events involving human or infrastructural harm, with the primary goal of accurately describing occurrences while they are still fresh in the memories of those present at the incident site. The system encompasses incidents related to patients, staff members, and visitors, addressing patient harm as a priority. The process begins with the occurrence of an adverse event, reported online by the staff within 24 hours, and recorded and maintained by the Quality Department. The Quality Department investigates the incident, involves all stakeholders, and transfers responsibility to the relevant department. Root Cause Analysis (RCA) is conducted for critical events, and Corrective and Preventive Actions (CAPA) are formulated and validated by the Quality

Department. The CAPA is then implemented, and regular follow-ups are conducted, with data presented in Quality Steering Meetings quarterly.

The classification of incidents according to severity includes near-miss events, no harm events, and sentinel/harmful events. Analysis of incidents revealed that 63.7% of reported incidents were closed, 36.2% were pending closure, and 43.1% were analysed with satisfactory CAPA. Monthly analysis indicated a higher number of incidents not closed in March, attributed to a lack of importance given to reported incidents and the accumulation of older cases. Additionally, the shift from a paper-based to an online incident reporting system in January resulted in fewer reported cases that month. According to the severity classification, only 1.9% of incidents contributed to sentinel events, 11% were near misses, and the majority (87.2%) were categorized as no harm events.

## **CONCLUSION**

In conclusion, an incident reporting system (IRS) serves as a vital tool for healthcare organizations in tracking, investigating, and documenting risky occurrences, including accidents and near misses. While voluntary IRS may not provide an exact representation of the frequency or severity of Patient Safety Incidents (PSIs), it offers valuable insights into hidden and contributory factors within a healthcare setting. It is crucial to view reported incidents positively, using them as opportunities to enhance the identification of systematic errors. To foster a culture of reporting, healthcare organizations should encourage staff to report incidents, allowing for the implementation of preventive measures and best practices. Learning from reported incidents is essential, leading to meaningful changes in daily

practices to prevent similar occurrences in the future. Future research should focus on behaviour change techniques and a comprehensive understanding of incident types and their underlying causes at the unit level. Healthcare professionals require prompt and honest feedback to sustain their ongoing commitment. Establishing a database with information on event types and root causes can help identify trends, track contributing factors, and allow units to monitor changes over time. Additionally, involving patients and their representatives in a patient safety reporting system can further enhance engagement in safety activities and encourage voluntary reporting on PSIs.

## **REFERENCES**

1. Howell, A. M., Burns, E. M., Bouras, G., Donaldson, L. J., Athanasiou, T., & Darzi, A. (2015). *Can patient safety incident reports be used to compare hospital safety? Results from a quantitative analysis of the English national reporting and learning system data.* *PloS one*, 10(12), e0144107.
2. Elena, R., Alberto, M., & Yuri, V. (2018, September). (E. Rana, Ed.) *Journal of Medicine*, 38. Retrieved March 2023, from <https://pubmed.ncbi.nlm.nih.gov/>
3. Anjalee, J. A. L., Rutter, V., & Samaranyake, N. R. (2021). *Application of Failure Mode and Effect Analysis (FMEA) to improve medication safety: a systematic review.* *Postgraduate Medical Journal*, 97(1145), 168-174.
4. Nrupal Patel, N. P., Mira Desai, M. D., Samdih Shah, S. S., Prakruti Patel, P. P., & Anuradha Gandhi, A. G. (2016). *A study of medication errors in a tertiary care hospital.*