

Title

**Return to the Emergency Department Within 72 Hours: Pattern, Rate
and associated factor**

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Introduction :

Unscheduled return visits to the Emergency Department (ED) within 72 hours are widely recognized as an important quality-of-care indicator in emergency medicine. Such revisits may signal underlying issues such as incomplete initial assessments, inadequate discharge planning, or progression of disease. In some cases, they may also reflect system-level inefficiencies or challenges in patient education and follow-up planning (Huang et al., 2020; Pham et al., 2011).

Globally, the rate of 72-hour ED return visits has been studied as a tool for identifying deficiencies in the delivery of emergency care and improving patient safety strategies (Laire, L., et al. (2012). These return visits place a substantial burden on already overstretched emergency services and can increase healthcare costs. Understanding the causes of these returns is essential to designing targeted interventions that enhance care quality and reduce avoidable ED utilization (Kao CL.,2023).

Research Problem

Emergency departments (EDs) are critical access points for urgent and life-saving care. However, return visits to the ED within 72 hours of an initial encounter are increasingly being recognized as a potential marker of suboptimal care, system inefficiencies, or unresolved medical issues. These returns may result from a range of factors, including premature discharge, inadequate clinical assessment, lack of patient education, or progression of disease

In addition to compromising patient safety and satisfaction, frequent ED return visits place added strain on emergency services, contribute to overcrowding, and increase healthcare costs. Although the 72-hour return rate is widely used internationally as a quality-of-care indicator, there is a lack of sufficient local data particularly in the context of Saudi Arabia's healthcare system

There is an urgent need to explore the pattern and underlying factors associated with 72-hour ED return visits in Saudi hospitals. A better understanding of these factors can inform target

Importance :

- The study contributes to identifying gaps in the care provided in emergency departments.

- It helps in formulating preventive protocols that reduce early return visits.
- It supports data-driven decision-making to improve emergency department efficiency.

Study Objectives:

- To determine the pattern of return to the emergency department within 72 hours among patients in a specialist hospital.
- To identify the common reasons for return based on patients' diagnoses and the context of initial care.
- To determine the clinical, system, and demographic factors associated with early ED return.

Research Questions:

1. What is the pattern of return to the emergency department within 72 hours among patients in a specialist hospital?
2. What are the most common reasons for return to the emergency department, based on patients' diagnoses and the context of the initial care provided?
3. What clinical, systemic, and demographic factors are associated with early return visits to the emergency department?

Hypothesis:

Objective 1:

Determine the pattern of return to the emergency department within 72 hours among patients in a specialist hospital.

Hypothesis:

- Null Hypothesis (H_{01}): There is no identifiable pattern in the timing or frequency of return to the emergency department within 72 hours among patients.
- Alternative Hypothesis (H_{A1}): There is a statistically significant pattern in the timing or frequency of return to the emergency department within 72 hours among patients.

Hypothesis:

Objective 2:

Identify the Factors associated with return based on patients' diagnoses, system, and the context of initial care.

- Null Hypothesis (H_{02}):

There is no statistically significant association between patients' return to the emergency department within 72 hours and their initial diagnoses, systemic factors, or the context of initial care.

- Alternative Hypothesis (H_{A2}):

There is a statistically significant association between patients' return to the emergency department within 72 hours and their initial diagnoses, systemic factors, or the context of initial care.

Hypothesis:

Objective 3:

To determine the clinical and demographic factors associated with early ED return.

- Null Hypothesis (H_{03}):

There is no statistically significant association between clinical or system or demographic factors (e.g., age, sex, comorbidities, vital signs, triage level) and early return to the emergency department within 72 hours.

- Alternative Hypothesis (H_{A3}):

There is a statistically significant association between clinical or demographic factors and early return to the emergency department within 72 hours.

Research Methodology:

- **Study Design:** A retrospective analytical study.
- **Setting:** Emergency department in a major teaching hospital in the Kingdom of Saudi Arabia.
- **Study Period:** After ethical approval Six months data will be collected and analyzed over a consecutive three-month period. Data analysis and writing within two months
- **Participants:** All patients who attended the emergency department during the data collection phase.
- **Data Collection Tool:** An electronically from Medical Record Number (MRN) including variables such as age, gender, diagnosis, discharge from the first visit, reason for return, and outcomes of the second visit.
- **Data Analysis:** Statistical analysis will be conducted using SPSS software (descriptive statistics, analytic statistics, and logistic regression tests).
- **Ethical Consideration:** The proposal will be submitted to the research ethics committee for approval. Confidentiality will be ensured and the data will be used for the research purposes only. Official approval from the hospital will be sought

Data collection:

Data collection sheet contain the following:

- Age
- Sex
- Diagnosis
- Comorbidities
- Vital signs
- triage level
- Date of Viste
- Date of return
- Early discharge
- Incomplete management
- Eligibility
- Other system related factors

References:

- Huang, Y., et al. (2020). Factors associated with emergency department return visits within 72 hours: a systematic review. (Ensure correct journal citation and page numbers based on your source.)
- Pham, J. C., et al. (2011). Seventy-two-hour returns may not be a good indicator of safety in the emergency department: a national study. *Academic Emergency Medicine*, 18(4), 390–395.
- Laire, L., et al. (2012). Analysis of patient revisit patterns and causes in the ED: a 1-year study. *Eur J Med Res.*, 24(1), 34–42. doi.org/10.1016/j.auec.2020.05.007.
- Kao, CL, et al. (2023). Analysis of patient revisit patterns and causes in the ED: a 1-year study. *Eur J Med Res.* 28(1):379. doi: 10.1186/s40001-023-01317-x.