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Unscheduled Emergency Department revisits within 48 hours of discharge

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Presentation Journey

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Introduction

Background

Revisits (patient returning to the ED with the same problem within 72 hours of discharge) cause an excessive burden on hospital resources, which magnitude is unknown.

Objective

To analyze early revisits (within a 48 hours timeframe), focusing on the group who required hospitalization.

Methods

Context

- Hospital Italiano de Buenos Aires, Argentina
  - Electronic Healthcare Records (EHRs)
  - HIMSS Level 7+ organization
- Emergency Department (ED)
  - 24 hours
  - 450 unscheduled consultations per day

Methods

- Cross-sectional study
- All consecutive ED visits from adult patients between July 2018 and July 2019 were included
- Institutional Review Board (#5447)
  - Secondary data from EHRs → confidentiality
  - Manually reviews by experts (internal medicine) → for causes and clinical interpretation of cases
- Rates reported as prevalences with their respective 95% Confidence Intervals

Results

- Among 178,295 ED visits, **11,686** were unscheduled revisits, resulting in a revisit rate of **6.55%** (95%CI 6.43-6.67).
- A total of **1,410** revisit cases resulted in **hospitalization** with an unscheduled hospitalizations rate of **12.06%** (95% CI 11.48-12.67).

Table 1. Unscheduled return visit rate within 48-hours of discharge

Month	Consultations	Revisits within 48-hours	Rate	95%CI	Return visit with admission
July 2018	14,703	959	6.52%	6.12 to 6.93	110
August 2018	16,472	1.106	6.71%	6.33 to 7.10	113
September 2018	16,915	1.097	6.48%	6.11 to 6.86	108
October 2018	15,362	972	6.32%	5.94 to 6.72	145
November 2018	14,168	906	6.39%	5.99 to 6.81	102
December 2018	13,907	1.025	7.37%	6.94 to 7.81	116
January 2019	14,053	942	6.70%	6.29 to 7.12	107
February 2019	13,261	962	7.25%	6.81 to 7.70	105
March 2019	14,507	967	6.66%	6.26 to 7.08	137
April 2019	14,651	900	6.14%	5.75 to 6.54	110
May 2019	14,661	938	6.39%	6.00 to 6.80	134
June 2019	15,635	912	5.83%	5.47 to 6.21	123
	178,295	11,686	**6.55%**	**6.43 to 6.67**	**1,410**

Results

- **252 cases** were caused by potentially **preventable medical errors**, resulting in a rate of errors of **17.87%** (95%CI 15.90-19.97).
  - 47.22%: inadequate therapeutic plan at discharge
  - 29.37%: an incomplete diagnostic process
  - 13.10% misdiagnoses
- Regarding the clinical course:
  - 32.54% required intensive care during hospitalization
  - 5.16% (95%CI 2.77-8.66) was the hospital mortality.

Discussion & Conclusion

- These findings represent a technology-enabled **clinical audit tool**.
- EHRs offer significant potential to **enhance healthcare** in multiple ways.
  - They can serve as a valuable tool to assess and improve hospital performance by providing **quality metrics**.
  - They can contribute to clinical management by fostering transparency initiatives that address errors.
  - They can facilitate a supportive learning environment, allowing valuable lessons to be learned and applied.

What comes next?

As a result of this research ...

- a revisits indicator through the ED electronic dashboard was developed, which provides an opportunity for **real-time assessment**
- transparency initiatives about errors were implemented in ED including a supportive learning environment (**problem-based learning**)

Fragmentation of care often leads to unnecessary duplication of diagnostic studies and complicates care transitions, highlighting the importance of minimizing revisits to improve both the quality (*patient care*) and efficiency of healthcare delivery (*financial benefits*) → Decision Support System?