

Unscheduled Emergency Department Revisits in a Tertiary Care Hospital – A Quality Improvement Study

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ABSTRACT

Patients who revisit the emergency department (ED) within 72 hours constitute an integral key performance indicator of quality emergency care. The number of patient footfalls to the ED in a tertiary care hospital in a rural area of a district in India from December 1, 2018 to May 31, 2019 was 7,808 and the average re-attendances recorded during that period was 0.32%. With increase in the number of healthcare setups, rising standards of the healthcare industry and increase in the expectations of the population visiting hospitals, ED re-attendance within 72 hours has been considered as an important key performance indicator of emergency patient care. The early ED revisit rate at this tertiary care hospital for 6 months was found to be only 0.32% (at an average of 4 cases per month). This is less when compared to many other international hospitals where it ranges from 1.5% to 2.5%. Since readmissions cause unnecessary overcrowding in ED, it would be best if each hospital evaluated their rate of readmission and its causes, and then tried to address the problems found. This can be effective in better management of ED, reduction of treatment costs, increasing patient satisfaction and prevention of ED overcrowding.

Keywords: Emergency department visit, revisit, emergency care

Patients presenting to the emergency department (ED) have been gradually increasing all over the world over the last few years.^{1,2} Unscheduled return visit to the ED within 72 hours is a proposed quality indicator by the Royal College of Emergency Medicine. These visits include critically ill patients and those with acute illnesses. However, over the last few years, there has been an increasing trend of stable patients registering themselves in the ED to be seen

immediately and demanding early disposal based on first-cum-first serve basis, irrespective of their illness or the triage category. This adds on to the stress faced by frontline healthcare personnel.

With increase in the number of healthcare setups, rising standards of the healthcare industry and increase in the expectations of the population visiting hospitals, ED re-attendance within 72 hours has been considered as an important key performance indicator of emergency patient care. The revisits can be due to various reasons such as nature of the disease, medical errors, deficiencies in initial management, missed diagnosis, noncompliance with medications prescribed, etc.³

ED revisits may include patients belonging to high-risk population, those with suboptimal discharge summaries and those approaching due to overcrowding, resulting in decreased efficiency of the working staff.

One of the major concerns for hospital managers and clinicians as a step towards quality improvement is reduction in the number of re-attendances in the ED. An unscheduled repeat visit by a patient within a short period (within 72 hours) after discharge from the ED is known as an early revisit. Over the past decades, a

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lot of research work has been carried out related to ED re-attendances.

One of the purposes of this study is to help clinicians analyze some clinical factors that might have been missed in routine emergency care and to rectify and avoid the same mistake again.

Considering all the above factors a retrospective audit was conducted in the ED of DM Wayanad Institute of Medical Sciences, Wayanad, Kerala, India, for a period of 6 months, i.e., December 1, 2018 to May 31, 2019.

The main objectives of this study were to identify the following:

- The rates of ED revisits in the duration mentioned above in this tertiary care hospital.
- The reasons for patients revisiting ED in less than 72 hours of discharge from ED.
- The demographic profile of these patients.
- Corrective measures that need to be taken to avoid these revisits.

METHODOLOGY

A register was maintained in the ED where patients who revisit within 72 hours are documented along with the reason for revisit, time and other basic demographic details. The revisit cases from December 1, 2018 to May 30, 2019 were noted and analyzed.

A total of 25 patients had revisited during this period. Cases in which the patients were initially advised for admission but were not willing or took discharge against medical advice (DAMA) or were leaving against medical advice (LAMA), were excluded from the study. The diagnoses of the revisiting patients were assessed.

RESULTS

The number of patients who had visited the ED during this period was 7,808. Twenty-five patients revisited in less than 72 hours and this was an acceptable 0.32%. Out of these 25 patients, there was a change in diagnosis in 11 patients. The demography showed 16 males and 9 females. Pediatric (<15 years) cases were 6 in number, 13 patients were in the age group of 16-45 years and 6 of them were more than 45 years of age.

- Of the 25 cases, 9 were discharged (36%) and 15 cases were admitted (60%) and 1 patient was discharged against medical advice (4%).
- Maximum numbers of revisits were in the month of March (8 cases) and minimum in April (1 case) (Fig. 1).

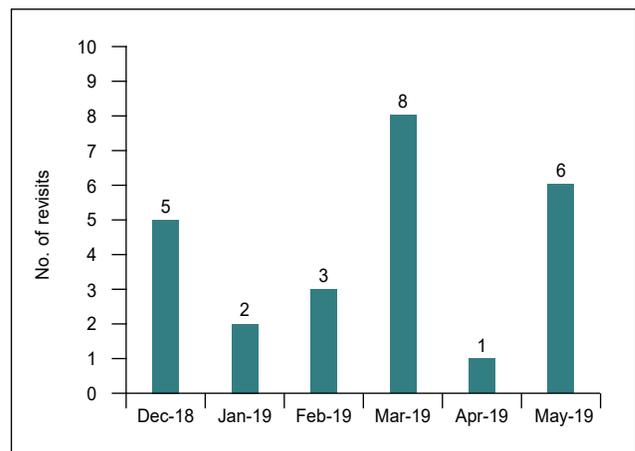


Figure 1. Graph showing number of revisits on a monthly basis over a period of 6 months (December 2018 to May 2019).

- Males were more in number than females (16:9).
- There was a significant variation in the diagnoses of the 11 out of 25 ED revisit cases compared to their initial visits (i.e., 44% of the revisit cases had a different diagnosis within 72 hours of their discharge from ED).
- It was noted that 9 patients had visited on weekends or public holidays.
- Twelve out of the 25 patients had their first visit during off regular working hours, especially the early morning hours.

DISCUSSION

The early ED revisit rate is regarded as a quality of care indicator and a tool for improving the quality of care provided to ED patients. ED staff who care for patients making an early revisit are responsible for managing patients' problems with discretion. Patients who make early ED revisits have increased mortality risk and are at high risk of medical and legal problems arising from medical errors or patient dissatisfaction.

A study comparing the results of readmission rates in various hospitals worldwide concluded that the causes can vary not only among different countries but also among different hospitals of the same country.⁴

Unplanned ED revisits are associated with medical errors in prognosis, treatment, follow-up care and information. With free availability of over-the-counter drugs causing masking of clinical features, frequent change of clinicians and unavailability of treatment documents makes it difficult to differentiate between the natural course of a disease, partially treated infections, anxiety of the patient, medical errors or missed diagnosis.

It has been recognized that senior emergency physicians are more aware of the fact that “medicine is an uncertain science”, as compared with the junior emergency physicians.⁵ This could be the reason for the revisits on weekends, public holidays or off regular duty hours.

The parameters that assessed the quality of medical care provided by an ED were described under the following headings: mortality rate, revisit rate, patient waiting time, and the number of patients who left the ED without being seen by a doctor.⁶

Though ED revisits are quality indicators in the Western Countries, less data is available for comparison from India.

The early ED revisit rate at this tertiary care hospital for 6 months was found to be only 0.32% (at an average of 4 cases per month). This is less when compared to many other international hospitals where it ranges from 1.5% to 2.5%.

One of the reasons for this could be the prolonged waiting period for consulting specialists; so patients tend to revisit ED much more in the western countries than in India.

CONCLUSION

Our ED early revisit rates could be improved to bring it further below the observed levels. Most of the revisits were attributed to the disease factor itself. Some of the causes were avoidable and hence necessary actions should be evaluated and implemented in future.

Further prospective studies are needed to evaluate the most common and the most serious causes of revisits to see if and how improvements can be made.

Since readmissions cause unnecessary overcrowding in ED, it would be best if each hospital evaluated their rate of readmission and its causes, and then tried to address the problems found. This can help in better management of ED, reduction of treatment costs, increasing patient satisfaction and prevention of ED overcrowding.

An action plan and recommendation to reduce the ED revisit time further, to involve ED consultants in encountering difficult cases or as an when required, to evaluate patients appropriately and involve multiple departments promptly when the requirements are felt needs to be brought into practice.

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Vegetarian Diet Tied to Lower Stroke Risk

A vegetarian diet rich in nuts, vegetables and soy has been found to be associated with a lower risk of both ischemic and hemorrhagic stroke, in a new research published online in *Neurology*.

In two large cohorts of over 13,000 individuals, a vegetarian diet was shown to be linked with a 60-74% decreased risk of ischemic stroke and 65% lower risk of hemorrhagic stroke.

Targeted Treatment for Pancreatic Cancer Beneficial

Patients with pancreatic cancer linked with specific mutations lived a year longer on receiving a therapy targeting the mutation protein, suggested a retrospective review of more than 1,000 cases. Treatment targeting actionable mutations yielded a median overall survival (OS) of 2.58 years as compared with 1.51 years for patients who had actionable mutations but were not given targeted therapy. Patients who received targeted therapies also lived more than a year longer in comparison with patients who did not have cancers with actionable mutations, reported researchers in *Lancet Oncology*.