

Does a busy Emergency Department have a lower threshold for referral to the Acute Medical team?

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Introduction

It has been suggested that Emergency Department teams may be more likely to refer patients inappropriately to in-patient medical teams to alleviate pressure on the ED staff, however whether or not this anecdotal notion is true or not remains unclear.

It has been shown that inappropriate referrals to hospital wards result in an increased number of patients being admitted for a shorter length of stay (LoS). While short lengths of stay are mainly beneficial for patients who genuinely require hospital admission, unnecessary admission to hospital puts the patient at risk of in-patient complications (such as infection and venous thromboembolism). Furthermore, an unnecessary increase in patient admissions will put trusts under considerable administrative and financial pressures.

For these reasons, it is important to try to reduce unnecessary hospital admissions. This study aimed to test this idea by looking at the proportion of patients who are admitted onto a Medical Admissions Unit (MAU) from an Emergency Department (ED) for a short period (<24 hours) as a surrogate of unnecessary admissions, on quiet versus busy ED days.

Methods

Data was analysed retrospectively from a prospectively collated database of all adult admissions to an emergency department and medical admissions unit over a 6-month period (August 5th 2013 to February 4th 2014). 10,752 non-elective, adult admissions from the ED to MAU were selected following refinement using appropriate exclusion criteria (see 'Table 1').

A "busy" Emergency Department was then defined as "when the number of patients admitted in one day exceeds the 75th centile for all patients seen per day over the 6-month period." "Short" length of stay was defined as any admission which lasted for less than 24 hours. The proportion of patients admitted on "busy" days vs. "non-busy" days were then compared.

Table 1 - Exclusion criteria

- Patients under the age of 18 years
- MAU elective admissions (mostly renal dialysis patients)
- Patients not admitted using standard admission protocol
- Patients not admitted through the standard admission pathways

Reference

1. NHS Services - Evidence base and clinical standards for the care and onward transfer of acute inpatients. Available at: <http://www.england.nhs.uk/wp-content/uploads/2013/12/evidence-base.pdf> [Accessed 20/09/2014]

2. NHS Quality and Service Improvement Tools; Length of Stay - Reducing Length of Stay. Available at: http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/length_of_stay.html [Accessed 20/09/2014]

Table 2. Short LoS - pros and cons^{1,2}

Benefits	Drawbacks
<p><u>Patient perspective</u></p> <ul style="list-style-type: none"> • Patients spend less time in hospital • Patients feel more in control of their recovery when at home • Lower risk of hospital acquired complications: <ul style="list-style-type: none"> • Infection • Venous thromboembolism 	<p><u>Patient perspective</u></p> <ul style="list-style-type: none"> • Lack of continual professional care from nurses/doctors • More burden on family • Lack of emergency care • Reported fall in patient deaths
<p><u>NHS perspective</u></p> <ul style="list-style-type: none"> • Cost saving benefits associated with reduced LoS • Reduced infection rates • Reduced waiting times for operations • Increased number of patients treated • Improved patient flow 	<p><u>NHS Perspective</u></p> <ul style="list-style-type: none"> • Putting suitable facilities to accommodate increased short LoS patients could be costly • Difficult to coordinate inpatient and outpatient care

Results

3197 (29.73%) patients were admitted from a "busy" ED and 7555 (70.27%) from a "non-busy" ED. On the "busy" ED days 1553 admissions (48.58%) resulted in a "short" length of stay and 1644 admissions (51.42%) resulted in a longer length of stay. On the "non-busy" ED days 3665 admissions (48.51%) resulted in a "short" length of stay and 3890 admissions (51.49%) resulted in a longer length of stay.

There was no statistically significant difference between the number of patients admitted for a "short" length of stay on "busy" days compared to "non-busy" days.

Conclusions & recommendations

From the results of this study there is a suggestion that there is no evidence that staff on a busy emergency department shift refer more patients inappropriately to the acute medical team. The most interesting finding from this study was that 48% of all admissions to the medical admissions unit are for less than 24 hours.

One drawback of this study was that a surrogate marker for inappropriate referrals was used. One way of furthering this research would be to combine the findings with data using other markers of inappropriate admission, potentially allowing for a reason for referrals to be identified, thus reducing pressure on the ED and MAU.