

Patients cared for in the Corridor of a large hospital in the United Kingdom: Sick, elderly, and sad

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Abstract

Care of patients in corridors of emergency departments is being normalised in many hospitals across the United Kingdom. Clinicians within Emergency Medicine and Acute Medicine have been discussing the impact of this care on patients, as well as the 'morale injury' on the staff looking after them. Whilst the authors of this paper have seen evidence of harm caused by delays of care to patients facing long waits in the emergency department, we believe that this is the first analysis that describes the case mix in a large UK hospital. Care in corridors affected patients with a broad range of conditions; 16% had a NEWS of 5 or more, 67% were elderly patients with markers of frailty, and 42% had a history of mental health problems or substance abuse.

Keywords

Acute Medicine, Admission Pathways, Corridor Care

Introduction

The quality of care delivered to patients in hospital is dependent on a broad range of factors: having the right staff at the right time with the right knowledge and the right tools.

Ergonomics of areas receiving emergency admissions is a key factor for the delivery of safe high-quality care.¹ Surging workloads and violent behaviors are expected pressures for Emergency Department (ED) staff. Literature suggests there is a substantial role of the physical environment in the delivery of care and its role in staff and patient experiences. Nevertheless, limited studies have explored simultaneous interactions between ED physical design elements, attributes (security, wayfinding, visibility, privacy), and efficiency.

Crowding in EDs, particularly with the boarding of patients awaiting transfers to medical wards, leads to higher rates of morbidity and mortality.² This could be due to increased cognitive load, poor disruption of workflow, and poor visibility of patients and staff.

Care at hospital front doors in the National Health Service (NHS) has been increasingly challenging since the COVID-19 pandemic. An increasing number of hospitals have reported crowding, where large numbers of patients have been cared for in emergency department corridors and in the back of ambulances.

'Corridor care' is a global phenomenon³ and part of the patient experience in more than 50% of acute medical departments in the NHS⁴; this is often labelled as the 'corridor of shame'.⁵ There is little

data on the experience of care for patients requiring medical emergency admissions who are being treated in corridors of England's EDs. What are the demographics of these patients? How long are they being treated there, and with what type of conditions?

This paper aims to describe the population of patients cared for in the corridor of a University hospital in England.

Methods

Design

Prospective survey.

Population

Patients cared for in the corridor of the ED of a University Hospital in the North West of England on a random selection of days between 29th February 2024 and 21st March 2024 including both weekend and weekdays. On the days selected, all patients cared for at 09:00 in the corridor were surveyed.

Setting

The ED has 15 beds in majors, 7 beds in resuscitation and 12 spaces in ambulatory majors. The mean daily intake of the emergency department was 250 patients, whilst the medical take had an average intake of 90 patients per 24-hour period.

The majority of patients in the corridor were being cared for by the medical team. The acute medical department has 44 beds. The consists of an

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acute medical consultant, a medical registrar, and a further medical doctor (grade F2-ST2). Surgical patients were seen by the surgical on call team, usually by a surgical doctor (grade F2-ST2) or an Advanced Nurse Practitioner (ANP).

'Corridor care' was defined as any patient in a trolley or bed, being cared for on the main corridor outside the emergency department. This is an area that is not designed or staffed for patient care, and has no privacy curtain available.

The nursing care of patients in corridors was allocated to additionally sourced nurses, however medical care was provided by the already established on-call medical/surgical/ED teams.

Data collection

Patient information was derived by reviewing notes from the in-house electronic patient record and collated in a spreadsheet. No patient identifiers were collected. Data included the age and gender of the patient, previous emergency department attendances, days spent in hospital in the previous 6 months, whether ambulance transfer to hospital was used, and the attendance date and time of the admission. Upon reviewing patient notes, we were able to document the time taken to triage the patient, the priority category and NEWS score on arrival, the time of clerking, and the time of the subsequent speciality and consultant review. We also recorded factors including the likely diagnosis, the number of repeat medications the patient was taking, any history of a mental health diagnosis or illicit substance use, capacity, mobility, and continence. Lastly, we recorded the duration the patient had spent being cared for in the corridor, how long they spent in the ED, and also how long their subsequent admission was.

Triage in the ED used the Manchester Triage System. Triage categories range from 1 (immediate) to 5 (non-urgent).

Physiological stability was measured by the value of the National Early Warning Score¹⁵ on admission to ED.

Patients were deemed to have capacity unless documented otherwise, i.e. those with delirium or requiring Deprivation of Liberty Safeguards (DOLS).

Frailty was described by collating data that included Waterlow scores, presence of pressure sores and incontinence.

Office hours were defined as 9:00 to 17:00.

Ethics

No ethics approval or consent was required for this service evaluation.

Statistics

Only descriptive statistics were used.

Results

Case mix

Data from 110 patients was collected. 60 (55%) patients were female and 50 (45%) were male. The mean age of patients cared for in corridors was 69 (SD 18) years.

The mean NEWS score on admission was 2 (SD 2.5). 71 patients had a score of <3, and 18 patients had a score of 5 or more.

Many patients had markers of chronic disease, with nearly two thirds of patients having presented to hospital in the previous 6 month period. The median number of attendances was 1 (IQR 0-2, range 0-18). Only 42 patients had not presented to hospital in the previous 6 month period. During their previous admission, patients had stayed for a median number of 2 days (IQR 0-11). The mean number of medications on repeat prescriptions were 8 (SD 5). Furthermore 89 (81%) patients were taking 5 or more repeat medications and 40 patients had a history of mental health problems. In addition to this, 19 patients had a diagnosis of alcohol dependency, and 10 had a history of other drug dependencies.

The breakdown by specialty was as follows: 89 patients were cared for by the medical team, 4 by the surgical team, 3 by the trauma and orthopaedic team and 1 by the ear, nose and throat team. The remaining patients continued to be cared for by the emergency medicine team. Medical diagnoses could be categorised following specialty review into the following specialties; respiratory (32 patients), gastroenterology (20 patients), cardiology (9 patients) and acute medicine (13 patients).

Care of frail patients in corridors

32 patients (29%) were older than 80 years. 6 had urinary incontinence and 10 double incontinence, 10 patients were not thought to have capacity. 53 patients could mobilise independently, but 10 patients were bedbound and 47 needed assistance with mobilisation.

Care team

63 patients had their specialty review undertaken by either a registrar or consultant. For 34 patients the grade of the clinician undertaking the initial clerking was the same as the grade of the clinician undertaking the specialty review.

Work-flow

99 patients (90 %) were documented to have been transported to hospital via ambulance. 11 patients (10%) were documented to have made their own way to hospital. The breakdown according to the ED triage category was as follows: 59 category 2 (very urgent), 49 category 3 (urgent) and 2 category 4 (standard).

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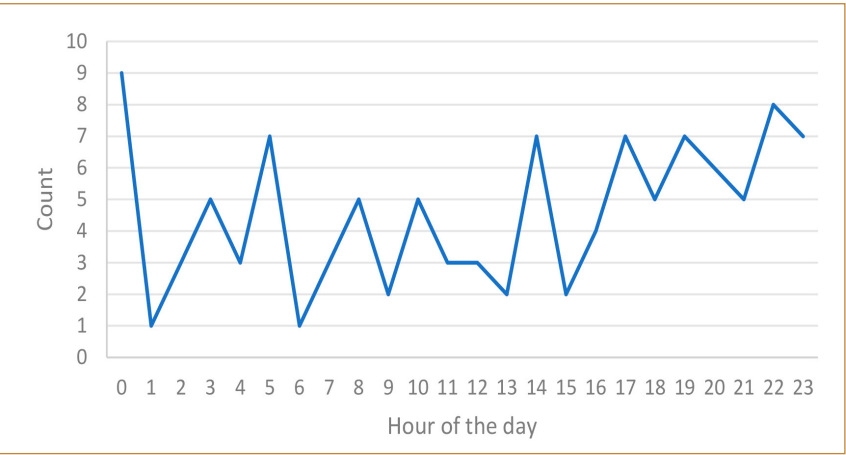


Figure 1. Shows the admission of patients to the corridor according to time of day

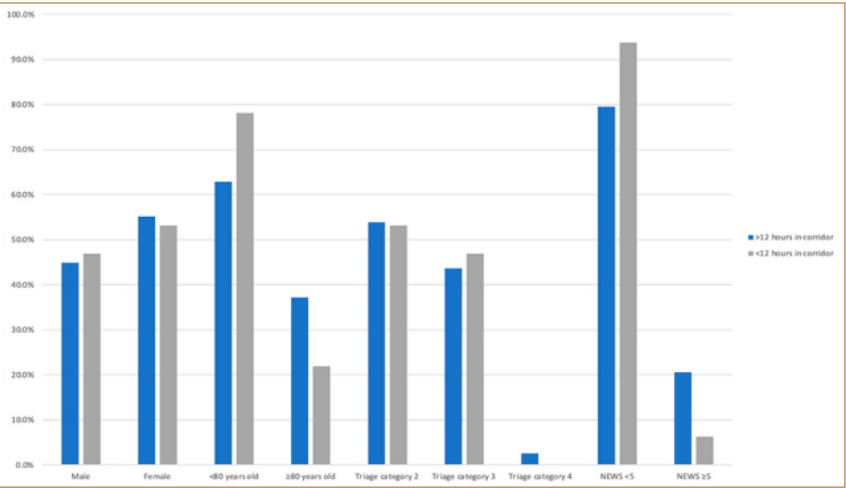


Figure 2. Comparison of characteristics of patients who spent up to 12 hours or more than 12 hours on the corridor

The average time from triage to clerking was 2:49 hours (SD 2:47), from first clerking to specialty referral was 5:03 hours (SD 2:54) and from clerking to consultant reviews was 14:21 hours (SD 8:35).

For the patients cared for in corridors the mean duration of their total stay in the ED was 23:12 hours (SD 12:23 hours). From this, the mean duration of stay in corridors was 19:57 hours (SD 10:19) (87% of the

departmental stay). 79 patients were in corridors for 12 hours or longer.

There was a mean number of 16 (SD 10) patients nursed on the corridor each day. The highest number of patients were cared for on a Thursday (29 patients) and a Sunday (28 patients), with the lowest number of patients on a Wednesday (6 patients) and a Saturday (2 patients). 35 patients had arrived at the ED during office hours, 38 between 17:00 and 24:00, and 37 between 24:00 and 9:00.

Following time spent in the corridor, 29 patients (26 %) were discharged directly home, and 81 patients (74 %) were transferred to either a ward, or proper bedded area in the emergency department. The mean length of stay in hospital following the corridor stay was 7 (SD 13) days. At 1 week following admission, 71 patients had been discharged home and 1 patient had died.

Subgroups

Comparison of sub-groups of patients cared for in corridors for 12 hours or more showed no statistically significant differences in rates for those aged over 80 years, gender, higher triage category or for those with a NEWS of 5 or more. (Figure 2, Table 1)

Sicker patients with a NEWS of 5 or more stayed for longer: 19 vs 25 hours (p<0.05).

Discussion

What we have shown

Patients with a broad range of profiles including a high proportion of physiologically unstable patients, frail and elderly patients, or patients with mental health problems had been cared for in corridors. Most patients spent prolonged periods in the corridor.

There was no obvious quantifiable association between markers of vulnerability of patients and a shorter duration of care in corridors.

Strength and weakness

To our knowledge this is the first time that the population of patients cared for in corridors has been

Table 1. Comparison of characteristics of patients and length of stay in the emergency department					
	0-12 hours	12-24 hours	24-36 hours	36-42 hours	>42 hours
Male (n=51)	17.6%	33.3%	25.3%	13.7%	11.8%
Female (n=59)	28.8%	23.7%	35.6%	3.4%	8.5%
< 80 years old (n=74)	24.3%	28.4%	31.1%	6.8%	9.5%
≥ 80 years old (n=36)	22.2%	27.8%	27.8%	11.1%	11.1%
Triage category 2 (n=59)	23.7%	20.3%	35.6%	8.5%	11.9%
Triage category 3 (n=49)	24.5%	36.7%	22.4%	8.2%	8.2%
Triage category 4 (n=2)	50%	-	50%	-	-
NEWS <5 (n=91)	26.4%	29.7%	24.2%	8.8%	11.0%
NEWS ≥5 (n=16)	6.3%	25.0%	56.3%	6.3%	6.3%

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described. The use of consecutive patients across a whole week adds credibility to the evaluation. The fact that markers of higher risk were not associated with lower durations could raise concern about a loss of a strategic approach to managing risk.

We did not compare the characteristics of the overall population in the Emergency Department with the patients placed in corridors. It is therefore possible that patients in corridors were more or less sick, or more or less frail than the remainder of patients in the department at the time of this survey.

It was beyond the scope of this survey to collate or analyse the effect of the location of care on clinical outcomes, cost of care, or patient and staff satisfaction.

What others have shown

Corridor care can be seen as inevitable with strategies needed for nurses to mitigate risk,⁶ or it can be seen as a never event with quality improvement focusing on avoiding care of vulnerable patients in corridors.⁷ Patients have described a preference to be boarded on ward corridors rather than corridors in EDs if given a choice.⁸

ED crowding undoubtedly has negative effects on patient experience and care. Patients may be forced to wait an additional hour for initial assessment of their pain by a clinician, with further delays to the ordering and administration of analgesia.^{9, 10} During times of department crowding, the rate of patients who leave without being seen increases.^{11,12} Crowding is also associated with decreased patient satisfaction.^{11,13} Crowding in the ED also leads to significantly

increased mortality rates, with a 30% relative increase at 7 days and 20% at 30 days.¹⁴

Clinical implications

The authors are concerned that the co-location of patients from different specialties with different physiological and care needs is likely to negatively affect both the patient experience and the outcomes of care. The lack of co-location of patients with similar profiles means that clinical teams will roam the department with a dramatic drop in efficiencies of care, and a linked increase in the relative cost of care per patient. Rather than being part of an albeit make-shift solution to the problem of increased demand, the care of patients in corridors might actually increase demand on clinical time.

Research implications

The observations of this paper are as a result of an exit block to EDs and the hospital wards. The authors are reluctant to recommend further research into the impact of care of patients in corridors. This paper adds to the ample existing evidence that this is an inappropriate, inefficient, and undignified model of care. Research should therefore focus on rightsizing of services for the predicted demand and improved models of care that prevent admission or facilitate return of patients to the community.

Declaration of competing interests

Nothing to declare.

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