

Senior clinician views regarding introduction of a ‘time to specialist’ quality measure for unselected emergency admissions

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ABSTRACT

The reorganisation of hospital emergency care aims to promote rapid access to specialists. In this study, we sought views from senior clinicians regarding the introduction of a ‘time to specialist’ (TTS) measure to evaluate healthcare delivery. We conducted a thematic analysis of transcripts from semi-structured interviews (n=13) with clinical leads in a large National Health Service (NHS) Foundation Trust. Three main themes were identified, each with two subcategories: TTS as an appropriate measure (utility and acceptability); recording of TTS information (defining specialist contact and collection of time data); and impact (patient care and service efficiency). Interviewees perceived that a TTS target might improve clinical care for patients with severe illness and service efficiency for milder presentations. There was uncertainty about other patient groups and the definition of ‘specialist’ in this context. Clinical leads recognised that TTS might be helpful for describing changes in the provision of services, but the impact for patients was unclear because of heterogeneity in presentation and severity of illness for unselected admissions, and challenges in the definition of ‘specialist’ relative to individual clinical need.

KEYWORDS: Emergency medical services; emergency medicine; specialisation; quality indicators; clinical audit

Introduction

Rapid access to a specialist opinion has been proposed as a key benefit of emergency care reorganisation.^{1–3} This reflects evidence favouring direct access to acute services for specific conditions (ie cardiac, stroke and trauma) and observation of additional unfavourable patient outcomes at times of reduced senior presence (overnight and weekends).^{4,5} In this context, measurement of ‘time to specialist (TTS)’ from ambulance dispatch or hospital admission could be valuable as an

emergency care performance indicator, but is not routinely recorded in the National Health Service (NHS) outside of specific conditions, such as stroke.⁶ Given that provision of full 24/7 consultant-led emergency medical cover could increase future hospital running costs by as much as 20%,² TTS could also assist in describing the cost-effectiveness of rapid senior availability. However, it is important that any new health service performance measure is perceived by clinicians as a valuable addition to existing metrics if it is to lead to an improvement in the delivery of care.⁷ It has been observed that the introduction of new data collection processes can divert resources away from clinical care, and the focus of providers can become achieving an abstract target rather than improving patient outcomes.⁸

We sought the views of senior clinicians regarding the utility and acceptability of formally introducing a TTS performance measure. This was in anticipation of a major reconfiguration of local emergency medical services intended to improve access to specialist emergency care.

Method

The Northumbria Healthcare NHS Foundation Trust serves a mixed urban and rural population of 550,000 in the north of England. Across three emergency departments (ED), there are currently 167,000 annual attendances resulting in 30,000 admissions. The existing three hospitals are situated approximately 20 miles apart in a triangular distribution, with a mean journey distance for emergency admissions of 10.5 miles (standard deviation [SD] 12 miles) and duration of 15 minutes (SD 12 minutes) to the nearest site. From June 2015, a purpose-built specialist emergency care hospital in the centre of the local population distribution will replace the existing ED and receive all emergency admissions. Acute medical specialties will have an on-site senior presence for at least 12 h each day, with an aspiration to admit patients into the most relevant speciality within 1 h of arrival. Although patient movement between locations within the hospital will be used to monitor operational performance, this will not reflect all clinical interactions and, therefore, the feasibility of introducing TTS was examined by semi-structured interviews with local clinical leads.

In response to an invitation across all medical and surgical specialities with an acute workload, 13 senior specialists

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volunteered to be interviewed. Interviews were conducted between February to May 2013, and represented the following specialities: child health, critical care, elderly care, emergency medicine (two co-leads), gastroenterology (three co-leads), orthopaedics, radiology, respiratory, rheumatology and stroke. The interviews were guided by a schedule of open-ended questions; however, adherence to this was not rigorously prescribed. Care was taken by the researcher to minimise bias during the construction of the interview, such as the sequencing of questions and any unintended omissions. Questions were posed dynamically so that they would promote positive interaction between the participant and the interviewer and stimulated the participant to share their experiences and points of view. Interviews were transcribed, anonymised and analysed by a single researcher who was not employed by the Trust. Thematic analysis with a constant comparative approach was used to code the transcripts.

Results

Three main themes were identified: TTS role as an appropriate measure for patient care; the recording of TTS information; and the impact of a TTS target upon patient care and service delivery. Quotations illustrating these themes and their subcategories are presented in Table 1.

TTS as an appropriate measure

TTS measurement was regarded as a potentially valuable approximation for acute care provision, although one that might hold more relevance for specialities providing proven time-critical treatments. It was suggested that introduction of a formal measure could act as a driver for change, and that the sharing of comparative data would be motivating for clinicians as well as enhancing the reputation of a local service.

Several participants cautioned against the universal introduction of a TTS measure, stating that it would reflect only one initial part of a longer hospital episode for most patients and that the priority should be measurement of patient outcomes. In clinical practice, TTS must also reflect genuine uncertainty about the destination specialty for a new patient without a clear diagnosis. One interviewee proposed that it would be simpler and more valuable to observe the time taken before starting specific treatments for specific conditions, such as antibiotics for pneumonia.

Recording of TTS information

Discussion about the recording of TTS focused on how to define a specialist, and the practical measurement of TTS. The definition of 'specialist' was challenging and opinions varied about whether clinicians with emergency medicine training provided a specialist review in this context. It was noted that acute-care specialists could facilitate a shorter TTS by seeing patients first, but meaningful comparison between services would require clarification of those patient groups where this was an appropriate care pathway. All participants identified a consultant position as a specialist; four of these stated that only a consultant should be considered a specialist in this context. The remainder of participants indicated that experienced specialist registrars or nurse practitioners could also be

considered as providing specialist review if working in close communication with a consultant.

There was universal agreement among participants that TTS recording should be automated, because manual recording could deflect valuable resources away from clinical contact and routine patient administration.

Patient and service impact of measuring TTS

The impact of measuring TTS was discussed with relevance to both patients and services. Interviewees agreed that incentivising earlier specialist contact would generate a clinical benefit for a small but important patient group, including prevention of inappropriate treatment. However, the main service benefit of early specialist contact was presumed to be making decisions regarding patients who were well enough to be discharged and driving change to traditional slower routines, such as long ward rounds on admission units. The different patient and service advantages were summarised by ID6: 'So it's more likely to be a) the sicker patients; or b) the ones where people think that they might be able to go home but we're not entirely sure and they need a follow-up plan. So it's the two ends of the spectrum.'

However, it would be challenging to have a TTS target that reflected both clinical urgency and service pressures, and there was concern expressed that a target reflecting service priorities would pull specialists away from clinical priorities. Given the possible lack of impact on patient outcomes, a service target should be measured over hours rather than minutes.

Discussion

The UK Committee of Public Accounts has identified that commissioners and urgent care working groups lack the information needed to manage the emergency care system more effectively, and recommended the publication of reliable performance data.² The time-dependent nature of emergency healthcare suggests that TTS would be a useful measure for service improvement, but clinical leads expressed a mixture of views regarding its meaning and impact. There was agreement that early specialist contact could benefit the 'sickest and the quickest', but interviewees reported a tension if TTS was used to improve service efficiency as well as patient care. A reduction in delays to discharge was considered to be a benefit on a longer timescale, but it was emphasised that specialists should not be penalised for prioritising the needs of individual patients over service efficiency.

Interviewees reported that a TTS measurement should focus upon those specific clinical scenarios where evidence exists for time-sensitive intervention. Rather than being collated irrespective of the scenario, TTS measurements are likely to have a greater impact if contributing towards a comprehensive audit of condition-specific care pathways, as exemplified by the Sentinel Stroke National Audit Programme (SSNAP).⁶ Early specialist decisions and/or procedures require adequate service support to be effective. Therefore, TTS should be reported in the context of data about the nature of the illness or at least the severity (eg stratified according to the National Early Warning Score).⁹ For a significant proportion of patients who require admission, but who are not severely ill and do not require a time-critical decision, the impact of specialist care would

Table 1. Thematic analysis results with supporting quotes.

Theme	Subcategory	Positive and/or promoting views	Negative and/or inhibiting views
Is TTS an appropriate measure for patient care?	Is the concept useful?	<p>A driver for change</p> <ul style="list-style-type: none"> > ID5: 'It's a proxy of the quality of care... it will be something that concentrates people's minds ... we might want to try and improve it' <p>Useful for selected services</p> <ul style="list-style-type: none"> > ID13: 'The time to specialist is more important for some specialties than it is for others' 	<p>Cannot be viewed in isolation</p> <ul style="list-style-type: none"> > ID10: 'If they see a specialist quickly but then they flounder around on the wards for an extra two weeks, well that's no good to anyone' <p>Other targets are more important</p> <ul style="list-style-type: none"> > ID6: 'So for a lot of our patients that come in – say the pneumonia ones – it's time 'til they get their antibiotics rather the time to see me' <p>Matching patients to specialists</p> <ul style="list-style-type: none"> > ID11: 'The difficulty you might have is trying to define which specialty people fall under because people don't necessarily have single specialty presentations'
	Is the concept acceptable?	<p>Service reputation</p> <ul style="list-style-type: none"> > ID6: 'It does look good if you can say "Right I can get everyone to see a specialist within 6 hours of coming in"' <p>Comparative data</p> <ul style="list-style-type: none"> > ID 4: 'Doctors like comparative round tables of performance' 	<p>Beware target dominating care</p> <ul style="list-style-type: none"> > ID6: '...fixating on the figures without taking it in context' > ID4: 'We've got to be clear that a success is not just seeing someone quickly - a success is better patient outcome'
How could TTS be recorded?	Can specialist be defined?	<p>Defined as a consultant</p> <ul style="list-style-type: none"> > ID12: '[yes] So I may be old fashioned with this, but in my mind the only person that can be defined as a specialist is a consultant' <p>Defined as any specialty team member</p> <p>ID5: '[yes] any member of that on call team'</p>	<p>Difficult or irrelevant to define</p> <ul style="list-style-type: none"> > ID6: 'Maybe 90% of the folks that come in - the decision, the treatment made by the A&E doctors or by emergency care physician or acute care physician is exactly what we continue and agree with' > ID7: 'depends on what the patient has. You see not all conditions need to be assessed by a specialist' > ID10: '... they might have seen an A&E consultant - is that a specialist?'
	Can a time be recorded?	<p>Electronic records</p> <ul style="list-style-type: none"> > ID4: 'It probably needs to be done real time and electronically - through the patient record' > ID8: 'The ideal would be some way of almost automatically recording that first interaction ... with probably some bit of software' 	<p>Time required to record</p> <ul style="list-style-type: none"> > ID5: 'it will soak up resources which could go elsewhere'
What would be the impact of measuring TTS?	Impact for patients?	<p>Definite benefit for a specific group</p> <ul style="list-style-type: none"> > ID6: 'often a more generalist doesn't always recognise the 10 or 20% of people for whom it's more complicated' > ID6: 'For a smaller group in all the specialties, then the specialist's opinion to start with will certainly improve care, will get them on right track, will get the right treatment instigated or stop the wrong treatment from getting instigated' 	<p>Target could interfere with care</p> <ul style="list-style-type: none"> > ID7: 'So really the focus should be on people who need immediate attention' > ID10: 'Should you rate it on the time they came in or on their early warning score? I mean, you'd be much better off going to see the person with the highest early warning score'

(Continued)

Table 1. (Continued)

Theme	Subcategory	Positive and/or promoting views	Negative and/or inhibiting views
	Impact for services?	<p>Early discharge decisions</p> <ul style="list-style-type: none"> > ID5: 'Probably what it does more than anything else is give early discharge, because quite a lot of the patients are admitted because of uncertainty and therefore safe behaviour from the juniors' > ID10: 'probably your most important thing is to see the patients who can go home now because then you can get them out to create beds for the new ones coming in' > ID4: '[on a medical admissions ward] if you're in bed 30 waiting to go home, you're going to get seen four hours after bed one' 	<p>Timescale of hours not minutes</p> <ul style="list-style-type: none"> > ID6: 'In terms of turning people around and getting them home quicker.... it's that day rather than say it needs to be 4/6/8 hours' > ID9: 'in terms of how you look after that patient, I mean of course it's important - you get a specialist to them, does it matter that you get it to them within 4 hours rather than 18, I'm not sure apart from genuine emergency stuff' > TTS value will reflect case-mix > ID7: '[the service should be measured by] patients who need immediate attention, and not trivial attention'

TTS = time to specialist

be better described by health outcomes. For these patients, it was reported that leadership of the healthcare team, good governance and a coordinated multidisciplinary approach was more important than review by a particular specialist during the very early stages of admission. This is consistent with recommendations in the cardiac care literature.⁷

It was unclear how the definition of 'specialist' would apply within clinical teams or to senior 'generalists' with expertise in acute and/or emergency medicine. Initiation of appropriate treatment might have already been done by junior medical staff, nurses or paramedics and this would not be captured by TTS. Therefore, it might be more appropriate to measure 'time to senior' rather than 'specialist' or to pre-specify a group of conditions for measurement of 'time to treatment'.

Many emergency admissions have no clear initial diagnosis and interviewees warned against premature labelling by speciality simply to meet a target, especially if this reduced the time that senior clinicians could spend with complex cases. The evidence underpinning centralisation of specialist acute services has been derived from conditions that can be identified in the prehospital phase with a reasonable degree of certainty,³ but unselected emergency admissions are dominated by an expanding population of older, frailer patients who often require a longer period of initial assessment.¹⁰ It would be necessary to ensure that services were reporting TTS consistently for this group.

It is important to acknowledge that we did not seek managerial and public perspectives, or views about wider national and international policy. Individuals in other emergency care settings or specialties might have different experiences and opinions depending upon the degree of centralisation and size of services. Only volunteers participated in the interviews and clinical leads with negative views might not have been motivated to contribute. The results did not reflect acute surgical or obstetric opinions, which should be considered because of the higher procedural and resource burden. A wider survey is necessary because the implementation and reporting of healthcare reconfiguration

is more likely to succeed when staff and patients are directly involved in the selection of intelligence and targets.^{8,11} Although interviews provide useful perspectives, the resulting themes have suggested interactions between practical, professional and social promoting and inhibiting factors that might require an approach such as Normalisation Process Theory for the development of a more complex model.¹² A formal consensus process by multidisciplinary experts (eg using a modified Delphi technique¹³) might also provide clarification of appropriate situations for the use and reporting of TTS.

In summary, clinical leads from a large acute care provider recognised that measurement of the time taken before specialist review might be helpful for describing changes in the provision of services, but the impact for patients was unclear because of heterogeneity in presentation and severity of illness for unselected admissions, and challenges in the definition of 'specialist' relative to individual clinical need. ■

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EDITORIAL COMMENT

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Editorial comment: Measuring performance in unselected emergency admissions

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OVERVIEW

Editorial comment on ‘Senior clinician views regarding introduction of a “time to specialist” quality measure for unselected emergency admissions’ by Christopher I Price, Sara McCafferty, Harry Hill and Peter McMeekin

Emergency healthcare is complex, chaotic and challenging. We know from previous data collected in healthcare that we could do better. As a result of service configuration, working patterns and medical traditions, some of the sickest patients still do not see the right doctor quickly enough when they present to the emergency department, resulting in delays in receiving vital treatment.

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At the other end of the severity scale, some patients attend and are admitted unnecessarily, are often over-investigated and use up vital finite resources. We cannot improve what we cannot measure, so the creation of appropriate quality metrics for unfiltered emergency services is essential and time-critical.

In this month’s journal, Christopher Price and colleagues propose one such metric, namely ‘time to specialist’ (TTS), and explore its potential with thirteen clinical leads from a large NHS Foundation Trust. Their paper reveals the interesting tensions and challenges that arise when the introduction of a new performance measure is proposed. It is a useful addition to this emerging field and a starting point for further discussion.

There is no perfect single metric in this setting (or indeed any other) and quite clearly, TTS has limitations. First, it is not clear who or what ‘a specialist’ is (and the responses in the paper reveal some intriguingly diverse opinions on this) but if we cannot define a ‘specialist’ we certainly cannot measure how quickly a patient is seen by one. Second, as some respondents in the study point out, many patients do not present with immediately apparent, singularly well-defined conditions that allow for immediate referral to the *appropriate* specialist.