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Senior doctor triage (SDT), the front door solution for emergency department crowding or is it really? A qualitative study of clinicians' views on senior doctors' involvement in triage and early assessment of emergency patients

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What is already known?

- Senior doctor triage (SDT) is aimed at helping to manage emergency department (ED) crowding and has been implemented in EDs in recent years. However, little is known on the emergency health care professionals' views and opinions of SDT.

What this study adds?

- In this qualitative interview study with 27 emergency health care professionals and ED managers, we identified the participants' views of SDT, their expectations of this model, the strengths and weaknesses, and the barriers and facilitators of this process.
- SDT was viewed as a patient safety mechanism particularly during periods with increased patient volume and ED crowding but this process was vulnerable to a number of system-level barriers mainly ED resources and hospital capacity.

Abstract

Introduction: Despite the focus during the last decade on introducing interventions such as senior doctor initial assessment or senior doctor triage (SDT) to reduce emergency department (ED) crowding, there has been little attempt to identify the views of emergency healthcare professionals on such interventions. The aim of this study was to gain an understanding of SDT from the perspective of emergency hospital staff. A secondary aim of this study was to develop a definition of SDT based on the interview findings and the available literature on this process.

Methods: Qualitative semi-structured telephone interviews were conducted with participants of different backgrounds including senior doctors, nurses, paramedics and ED managers. Textual data was analysed using a template analysis approach.

Results: 27 participants from 13 EDs across England were interviewed. SDT was viewed as a safety mechanism and a measure to control patient flow. The most prominent positive aspect was the ability to initiate early investigations and treatment. Various shortcomings of SDT were described such as the lack of standardisation of the process and its cost implications. Participants identified a number of barriers to this process including insufficient resources and exit block, and called for solutions focused on these issues. A proposed definition of an 'ideal' SDT was developed where it is described as a systematic brief assessment of patients arriving at the ED by a senior doctor-led team which takes place in a dedicated unit. The aim of this assessment is to facilitate early investigation and management of patients, early patient disposition and guide junior staff to deliver safe and high quality clinical care.

Conclusion: This is the first national study to explore the opinions of various emergency and managerial staff on the SDT model. It revealed variable interpretations of this model and what it can and cannot offer. This has led to a standard definition of the SDT process which can be useful for clinicians and researchers in emergency care.

Introduction

Senior doctor initial assessment process; rapid assessment and treatment (RAT) or senior doctor triage (SDT) usually refers to the formal process of early assessment of patients attending an emergency department (ED) by an experienced emergency physician. SDT has been implemented in a number of EDs worldwide in an attempt to improve patient flow, decrease door-to-doctor time and reduce left without being seen (LWBS) rates (1–4). SDT has also been deployed as one strategy to improve the operational efficiency in the ED, and its compliance with the national ED time targets set in a number of countries such as Australia and the United Kingdom (5,6).

The involvement of doctors in the early assessment of patients is not new. Before the 1980's, doctors were the first point of contact for patients attending the ED. However, ED crowding and increasing patient volume necessitated the introduction of nurse triage to prioritise patients' care according to the urgency with which they required medical treatment (7,8). More recently, there has been a move back towards involving doctors in triage in the form of SDT. This model is used by various EDs worldwide and a number of quantitative research studies have been conducted examining its effectiveness (9).

There is reasonable evidence supportive of SDT (9). The benefits of early senior doctor assessment include better patient outcomes and ED performance resulting from early initiation of patient care plans (9). A previous systematic review of 25 mostly observational studies indicated that SDT can reduce waiting times to see a doctor, the total length of stay in the ED and the percentage of patients who leave the ED without being seen (9). A number of leading organisations in the UK recommended senior doctor initial assessment, as an approach to improve patient flow (10,11). Little is known about how these recommendations are translated into practice. In particular, there is a lack of qualitative evidence that describes the ED clinicians' views of this model of care which should be considered before widespread adoption of this process.

A fundamental decision confronting all emergency care policy makers, ED managers, and clinical leaders concerns whether or not to encourage or adopt the conduct of an intervention such as senior doctor triage. This study aims to explore the clinicians' and other stakeholders' views of senior doctor triage which can help to reveal the underlying logic of the emergency department activities and can help ED clinicians to re-evaluate their strategies and measure the impact of SDT. Knowledge of the perceived positive and negative aspects, enablers and facilitators of senior doctor triage can serve as an input to making evidence-informed decisions regarding such an intervention. Furthermore, insights from this study can assist to improve SDT process in EDs where SDT is

currently implemented. The study additionally suggests a definition of SDT based on the interview findings and the previous literature (9) which can be used to guide future research and evaluation of SDT.

Methods

Semi-structured telephone interviews were conducted with participants working in a number of EDs across England. Telephone rather than face to face interviews were used for practical, logistical and economical reasons. Participants included doctors, nurses, paramedics and ED managers. Telephone interviews lasted around 30 minutes with each participant. No repeat interviews were carried out.

Interviews were conducted by MA, a PhD student in health service research and a female junior doctor who has worked in the ED setting but not at the time of the study. This familiarity with the ED deemed useful particularly when accessing study subjects and establishing rapport with the participants. JT is a reader in health service research with a significant experience in qualitative and quantitative research methodology and emergency care research. SM is a professor in emergency medicine with considerable experience in research methodology, and an emergency medicine consultant and thus familiar with the ED setting and circumstances surrounding senior doctor triage. This collaborative team approach limited the extent to which individual background or perspectives could influence our data analysis and interpretations. Short notes were kept throughout the qualitative study and reflexive comments were noted on what was being experienced in the interviews, and the researchers' consciousness about how their presence disturbed or did not disturb the research.

Participants

Potential participants were identified from an earlier related online survey study of ED triage practices of all Type 1 EDs in England, where consultants were asked to indicate their willingness to participate in a follow up interview study. Please see Supplementary file 1 – Online survey of ED triage practices. A convenience sample of ED consultants from different sites with different triage practices and regions across England was interviewed. Other participants i.e. nurses, ED managers, junior doctors and paramedics were approached using a snow-ball method via the initial consultant contact. Sampling from different clinicians was used to achieve triangulation of data sources and provide multiple perspectives (12). The study aimed to sample participants to the point of data saturation where no new data, coding or themes were generated (13). Prior to interview, participants were provided with the study information sheet and consent form which detailed the aims and objectives of the study.

Interview schedule development

The interview schedule was developed to include open-ended questions regarding the participants' views of SDT in terms of the positive and negative aspects of SDT, the challenges and proposed measures to address these challenges. The schedule was reviewed by the authors and was piloted with two ED physicians and adjusted accordingly. Please see Supplementary file 2 – the qualitative interview questionnaire.

Data collection and analysis

The interviews were audio-recorded and transcribed. The transcript files were anonymised and labelled and any potential identifiable data removed and replaced by a pseudonym. The textual data produced from the interviews were analysed using Template analysis, a form of thematic analysis. The initial themes were developed based on the interview schedule that reflected the key concepts of the study. The first transcript was taken and every section of text that appeared to offer something relevant to answer the research question was marked and a preliminary code was given to create an initial template. This was further developed by grouping the preliminary codes into meaningful clusters. These were subsequently classified under a theme or a subtheme or across themes so that hierarchical and lateral relations between themes could be defined to create the final template using Nvivo11. University ethics committee approval was granted for the study (Application number 006229). A sample of participants reviewed a draft of the initial study findings and were asked to assess the adequacy of data and preliminary results as well as to confirm the initial interpretation of the data. This technique was used as a step to establish the credibility of the data analysis process (14).

Results

Characteristics of participants

In total, 27 interviews were conducted with 13 consultants, 4 nurses, 7 paramedics, 2 ED managers and one junior doctor. The senior doctors interviewed were consultants with experience ranging from 3 to 10 years; all of the nurses were registered nurses with experience ranging from 3 to 20 years while the paramedics' years of clinical experience ranged from 6 months to 20 years. Participants were recruited from 13 NHS Trusts across England. Seven of these hospitals used SDT in their ED, while the remaining sites used traditional nurse triage but had some prior experience of using or piloting SDT. The number of ED attendances in these participating sites ranged from 56 050 to 259 500 per year (mean = 132 230 attendances). See Table 1.

Table 1 Characteristics of participating emergency department sites

Sites	Senior doctor triage status	Region	Number of attendances per year
Site 1	Previously used SDT	Midlands and east of England	187460
Site 2	Previously used SDT	North	145730
Site 3	Senior doctor and nurse triage for ambulance arrivals	North	259500
Site 4	Previously used SDT	South	103180
Site 5	Previously used SDT	South	69460
Site 6	Senior doctor-led team triage for ambulance arrivals	South	90860
Site 7	Previously used SDT	South	132500
Site 8	Single SDT for walk-in patients	North	113100
Site 9	Senior doctor and nurse triage for ambulance arrivals	London	149690
Site 10	Previously used SDT	South	104760
Site 11	Senior doctor and nurse triage for ambulance arrivals	London	91790
Site 12	Single SDT for ambulance arrivals	London	56050
Site 13	Senior doctor and nurse triage for walk-in patients	Midlands and east of England	124490

SDT, senior doctor triage

The data analysis revealed four main themes:

Participants' views on senior doctor triage

Participants shared their views of SDT and what it involves in their EDs when applied to walk-in patients or ambulance arrivals. With regard to SDT for ambulance arrivals, consultants and nurses viewed SDT as a key component for managing patients' risk and treating acutely unwell patients quickly. In some sites SDT was focused on early diagnosis of time-critical cases for ambulance arrivals.

Participants also identified that SDT meant early request of investigations and initiation of a management plan. Conversely, a few participants had a different perspective arguing that requesting early investigations and initiation of patient treatment is not peculiar to SDT. The development of the nursing role and their responsibilities allowed for senior nursing staff to start initial assessment, request investigations and prescribe treatment independently without the need to consult a senior doctor.

Participants also described how SDT can be used to direct the patient to appropriate care pathways. Twelve participants stated that placing a senior doctor at the front door can facilitate making direct referrals and earlier disposition decisions. Participants commented that SDT for ambulance arrivals is mainly concerned with 'logistics'. One participant argued that SDT should therefore be distinct from triage since the triage process does not involve making disposition decisions but mainly prioritizing patients according to their clinical presentations.

Nevertheless, senior doctor initiated patient referral and disposition at the point of triage was not always a straightforward process. Participants explained that it can take a long time to contact the relevant health care professional and make the referral, and that some specialties can be reluctant to receive patients unless fully assessed. An ED manager also highlighted that sometimes nursing staff *'have got a better grasp of what the alternatives are and what is available than medical staff because of the turnover of the medical staff in terms of their location' (ED manager P17, Site 5).* Alternatively, in cases where this model was implemented for walk-in patients, participants noted that the senior doctor was employed as someone who can provide quick fixes for patients with minor health conditions and direct them to the appropriate services. See Table 2.

Table 2 Participants' views on the role of senior doctor triage

Participants views on senior doctor triage		Quote
Patient safety measure in crowded EDs		*'It is about earlier care of sick patients… so the sick ones get picked up off the waiting queue very quickly...It is much safer [than traditional triage]' (Junior doctor P7, Site 9)*
Early senior decision making	Early focused accurate investigations	*'We make sure that the right bloods and x-rays are requested. The right immediate interventions are carried out' (Consultant P25, Site 11)*
	Early management planning	*'The doctor triage will in most cases put a provisional plan for the patient, whereas the nurses do not.' (Nurse P4, Site 2)*
	Early disposition	*'The kind of the thing we were told to rating [rapid assessment and treatment] is to do a quick direct referral to medics or a quick direct referral to geriatrics' (Consultant P18, Site 5)*
Quick fixes		*'If you're gonna [going to] have someone in triage for walk-in patients .. It should be somebody who can see something and then fix it and discharge the patient or make sure they end up going the right way' (Consultant P9, Site 13)*

The positive aspects of senior doctor triage

Participants identified positive aspects including managing patient risk and promoting patient safety. More broadly, participants identified other patient related gains, commenting that SDT is *'good for patients'*. Patients may benefit from seeing an experienced doctor who can guide their management and direct their way through the department. Additionally, some consultants stated that they felt that using their expertise in the triage area can boost their job satisfaction.

A further advantage of SDT for ambulance arrivals, described by all the paramedics and some of the consultants is the opportunities for education and training for junior members of staff although it was acknowledged this depended on time constrains and approachability of the doctor.

Many participants, including paramedics, named continuity of patient care amongst the benefits of direct handover to a senior doctor for ambulance arrivals allowing exchange of detailed clinical information from a *'real witness'*. Otherwise, the information can become *'third hand and can certainly be lost'* (Paramedic P16). However, one paramedic indicated that ability to give detailed handover is dependent on ED crowding and patient volume. See Table 3.

With regard to ED targets, especially handover targets and time to see a doctor, there was a quite a sharp divide and conflicting views on this matter. Most admitted that their views were not supported by evidence. Participants, in general, thought that the rate of ED attendances and ED crowding can determine the success of SDT.

The negative aspects of senior doctor triage

Participants of different backgrounds stated their doubts over the added value of SDT. The two ED managers emphasised that senior doctors are a valuable resource to the ED. They also thought that it could be 'a mistake' to operate a medical-led triage, in terms of placement of resources.

Another common source of criticism of this model by senior doctors was the *'unrealistic expectations'* of what can be achieved during their brief encounter with the patient. After triage, the senior doctor was expected to undertake initial investigation, start urgent interventions, document an initial plan, allocate the patient to a suitable space, and hand over to an appropriate member of staff, all within the space of a few minutes. Participants identified that senior doctors were afraid of being perceived as a mere 'receiver' of patients and consequently might undertake a rather full assessment of patients, which can subsequently cause further delays.

One of the other weaknesses of SDT described by participants is that it was a person-dependant practice. There is a lack of standardisation of the process, probably stemming from the lack of clear written policies and any sort of training to perform this role.

Additionally, some participants elucidated the influence of SDT on other ED staff such as junior doctors and paramedics. Consultants and nurses thought that there could be a negative influence on the development of junior doctors' diagnostic skills. Conversely, other participants thought that SDT could yield valuable educational lessons for junior doctors.

Paramedics explained that the experience of handing over to a senior doctor can be intimidating, particularly for junior paramedics and explained that they felt that senior doctors' unfamiliarity with the challenges of the pre-hospital environment might negatively affect the handover process. See Table 3

Table 3 The positive and negative aspects of senior doctor triage

Positive aspect of senior doctor triage	Quote	Negative aspects of senior doctor triage	Quote
1.Patient safety measure (Identify the sick patients)	*'I feel it is a safety feature really. It allows you to pick up sick patients, and get them sorted' (Consultant P1, Site 10)*	1. The cost implications of senior doctor triage (Cost of employing a senior doctor to perform the triage role)	*'.. when you see it in the context of the resources… we were finding that trying to free up a consultant to do rating [rapid assessment and treatment] was detrimental to the rest of the department.' (Consultant P22, Site 2)*
2.Patient interaction with a senior doctor and consultation (The whole discourse around the patient changes where a senior doctor provide reassurance on the next steps in the patient journey)	*'If you flip it and think what patients want, they are keen to be seen by someone who can make a decision early in their patient pathway, and this could be achieved by involving senior doctors in the triage' (Consultant P26, Site 6)*	2. Conflicting priorities (supervision, other ED responsibilities) The unrealistic demands on senior doctors performing this role and Interruptions (junior members of staff asking questions about other patients in the department)	*'It seems sometimes that you are doing 100 things at once, and you have to be really aware of how tired you are, and the safety of juggling lots of competing demands' (Consultant P2, Site 8)*
3.Senior decision making (Early senior decision making of what's going on and early investigation and treatment)	*'The positives are I suppose is the patient is seen really early in their way through the department by somebody very experienced and knowledgeable who can start early intervention' (Nurse P11, Site 2)*	3. Lack of role clarity (The inconsistency of approach as to what should/should not be achieved at this initial stage)	*'One of the other downs is that there isn't an overly consistent approach to have each of the doctors do that, so it will be very variable, which can be quite difficult from a nursing point of view, to kind of what to expect from who' (Nurse P11,Site 2)*
4.Continuity of patient care (Direct handover from paramedics for ambulance arrivals)	*'I think you get a more continuity in the patients care rather than it is being a third handover … I believe that patient care is more methodical' (Paramedic P8)*	4. Some undesirable consequences of this model for ED staff and paramedics A. Anchoring bias* for junior doctors B. Consultant paramedics handover issues	*'I have seen it several times when the guidance given at triage, actually following a thorough history and examination is actually no longer relevant. Yet, junior doctors do not seem to deviate from the plan because it has been made by a senior doctor' (Nurse P4, Site 2)* *'Personally I find it a little intimidating, because you have to be ready and you have to get all your facts right and your observations and everything perfect really' (Paramedic P8)*

5.Job satisfaction (Enjoying the triage role)	*'I honestly enjoy triage and personally kind of base myself around the front door ' (Consultant P1, Site 10)*	5. Role identity issues (Traditionally performed by nursing staff)	*'Although you might have a specific programme where it might be a consultant who does the triaging , if that consultant is busy and there are nurses available to do the triage, then the nurses will do it' (Paramedic P15)*
6.ED management (Feeling in control of patient flow, working collaboratively with the nurse in charge)	*'It is a good way to ensure that you know the patients in your department, you know the patients who potentially got a problem, where they are, so you can keep an eye on them' (Consultant P14, Site 2)*	6. Can create queues at the front door	*'We sort of ended up actually seeing the patients and seeing them fully, and then the knock on effect of that, clearly the more you do at the beginning, the longer it takes to do the triage…and then you risk delaying your ambulance off-loads' (Consultant P 22, Site 12)*
7.Better use of resources (Avoidance of unnecessary investigations)	*'I think senior involvement at an early stage, both shortens and focuses a patient journey and that is not just in the ED but that is within every hospital specialty, so if you are seen by somebody who makes decisions' (Consultant P21, Site 7)*		
8.Logistics (Patient allocation to appropriate care pathways)			
9.Education (Training and educational opportunities for junior members of staff)	*'I suppose a pro would obviously be education… we sometimes come with things like ECG, for example , obviously as a senior doctor, they may be able to notice something we did not, so that is always a pro' (Ambulance clinician P10)*		

* Anchoring bias : *a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered (the "anchor") when making decisions*

Barriers and facilitators of senior doctor triage

Participants described a number of barriers to the process of SDT. The main cited barriers were related to resources in terms of insufficient staffing, clinical areas, and appropriate IT tools as well as exit block and the lack of alternative care pathways. Some expressed their concern regarding the lack of support from other health care professionals, resulting in a single effort process, lack of teamwork and effective communication. A number of participants highlighted that some ED clinicians' lack the interest to engage in such an intervention. Finally, senior doctors described how SDT might not benefit or change the outcome of the patients with complex co-morbidities and elderly patient ED attendances.

Participants also identified a number of suggested solutions that might facilitate the SDT process which incorporated research, education and training , a flexible and individualised SDT team approach, and finally, appropriate support and resources. In addition, alternative models of SDT were suggested by some participants such as having a mobile senior doctor assessment team or employing it selectively for a specific group of patients. See Table 4.

Table 4 The barriers and facilitators of senior doctor triage

Barriers	**Quote**
1. Single effort (Lack of support from other health care professionals, teamwork and effective communication)	*' I don't think there is any point having a senior doctor on their own …you need a team of people, otherwise the senior doctor ends up spending their time writing out blood forms…rather than directing patient investigations and management' (Consultant P 21, Site 7).*
2. Resource barriers (insufficient staff, clinical areas, and appropriate IT tools)	*'What we found is our modelling is a bit optimistic …..Really we probably need a much larger team and a much larger space' (Consultant P25, Site 11)*
3. Psychological barriers (ED clinicians attitudes, beliefs, values and previous negative experiences and individual's willingness to engage in such an intervention)	*'Part of it also is that a lot of doctors do not like doing it , they see it as inefficient, they see it as boring ..,, so there is a degree of antipathy towards it' (Consultant P12, Site 4)*
4. Organisational barriers(ED flow and exit block, lack of alternative care pathways, challenges in making patient referrals (organisation culture and resistance to change and adapt to new processes)	*'For it to be productive you need somewhere to flow the patients to....if there is nowhere to move the patient onto, you don't particularly gain anything' (ED manager P13, Site 4)*
5. Service user-related barriers (Increasing patient complexity and elderly population)	*'It worked very inefficient…because lot of patients were coming to the hospital were elderly frail people with multiple falls and complex comorbidities, it is inevitable that they are going to come to the hospital, so organizing blood tests, and organizing early tests probably does not make a great impact' (Consultant P12, Site 4)*
Facilitators	***Quote***
1. Research, education and training - Formal training and clear definition of expected tasks to minimize unwanted variability guided by research - Encouragement of an open-discussion culture and interagency working between junior doctors, paramedics and senior doctors	*'We simply don't know what senior doctor triage is for, what is good senior doctor triage and what is bad senior doctor triage? And until we do that there is probably no point trying to push people do it one way or another' (Consultant P14, Site 2).* *'Break down the barriers the hospital and pre-hospital care and give ED staff more understanding of what we have to do. I would like to see more senior doctors and I appreciate that they are busy and they have lots on, but I would like to see more interagency working .And a flip side of that, more paramedics and ambulance staff spending time in the ED, with triage nurses, in the hospitals' (Paramedic P20)*
2. Individualised flexible senior doctor triage approach	*'We have what we call sessions so we have 'see and manage' sessions from 6 am to 10 pm…and people basically sign up to these as extra to their normal working week' (Consultant P2, Site 8)*
3. Sufficient support and resources (Sufficient staffing, dedicated space for senior doctor triage, appropriate IT support, creating exits 'outs' to improve patient flow following the triage process)	*'I think, in an ideal world, you will have a triage team and a senior clinician, you could have people who could be tasked, patients would move to a place and then they will get picked up by that person [senior clinician]… it does need a dedicated team and space at the front door.' (Consultant P24)* *'…You have to make sure I think, that if you are seeing patients early then, you have got fast track options to begin with, if you got no fast track options, it is just not worth your time to do it' (Consultant P2, Site 8)*

Discussion

This is the first study that explores the ED clinical staff and managers' perspective on senior doctor initial assessment. Participants described SDT as a process that allowed them to identify sick patients in a timely manner which ensured patient safety during busy times. Positive aspects included continuity of patient care, and early patient placement to appropriate care pathways. Negative aspects of SDT were the questionable use of the senior doctor resource, the unrealistic demands on senior doctors performing this role, and the inconsistent approach as to what should/should not be achieved at this initial stage. Barriers to SDT process were mainly related to insufficient ED resources and exit block. Participants suggested that solutions should therefore focus on supplying the ED with the required resources along with the provision of appropriate guidance on this process.

A scoping review of literature showed that qualitative research on this process is almost entirely lacking. Various studies with variable methodological quality showed that consultant delivered care might be associated with positive aspects in other specialities including acute medicine and anaesthesia (15). Yet, it is not entirely clear how that is achieved and if additional resources might play a role in these findings. A quantitative study by Fielding et al, on the other hand, emphasized that consultant delivered care combined with a multidisciplinary team approach in acute medicine settings, did not make a difference to patient safety but subjective advantages identified by the team included more effective decision-making and knowledge of the hospital system (16).

The majority of participants expressed their doubts regarding the added value of senior doctor initial assessment at the front door. The cost-effectiveness of rapid assessment and treatment models has not been thoroughly studied but a recent Canadian study of a physician-nurse supplementary triage assessment team concluded that this model is not a cost-effective daytime strategy (17).

In this interview study, participants suggested that the high ED workload combined with unrealistic expectations of what can be achieved by the senior doctor at this initial stage may result in building up of patient queues at the front door. This contrasts with a study of an Emergency Care Intensive support team which claimed that one of the advantages of this model is that the queues for triage are eliminated (18).

One of the issues identified was the lack of clarity about the role of the senior doctor, making this process variable and person-dependent. It could be argued that it is not possible to produce strict policies to guide this process, as the main purpose of this model is to take advantage of the senior doctors' experience and judgment skills and apply them differently to various presenting cases and different clinical and organisational settings. It is important to emphasise, though, that ideally the

senior doctor assessment should be brief to allow further assessment of patients by junior ED clinicians.

Concerns about junior doctors' diagnostic skills were also highlighted. Nevertheless, a recent Australian study showed the majority of junior doctors felt that early senior input at the front door did not have any particular influence on their capability to produce a differential diagnosis (19).

Exit block or access block was featured repeatedly in the interviews as a determinant factor to the operation of SDT. SDT tends to focus on one segment of the ED. It does not address wider organisational factors including exit block. A recent paper by Kreindler criticized such focused initiatives since they do not represent a coherent system level strategy (20).

Developing a definition of senior doctor triage

In the literature, the involvement of senior doctor in the initial assessment of patients or SDT is described by an array of labels and acronyms including rapid assessment team (RAT), supplemented triage and rapid assessment and treatment (START), team triage and treatment (T3), and senior emergency physician and nurse triage (SEPNT) amongst others (9). A standard definition of SDT does not exist. It is necessary, therefore, to formulate a clear definition of this process to allow shared understanding and comparative research of this process. We propose a definition of an 'ideal' SDT based on the facilitators and barriers gleaned from the interviews. This is to serve as a guide rather than a formal definition.

SDT can be defined as a *systematic brief assessment of patients arriving at the emergency department by a senior doctor-led team that takes place in a dedicated unit. The aim of this assessment is to facilitate early investigation and management of patients, early patient disposition and guide junior staff to deliver safe and high quality clinical care.*

In the proposed definition, we refer to the process of SDT as a systematic brief assessment of patients arriving at the ED by a senior-doctor led team in a dedicated unit. It is acknowledged that the definition might not reflect SDT practices across all sites included in the study where in some EDs, senior doctors were not supported by a team but this was recognised as a barrier to sustainability of the process. Therefore, the proposed definition suggests that the SDT process should ideally adopt a team approach and take place in a dedicated unit.

Limitations

The findings of this study are limited by several factors. Firstly, the use of a convenience sampling method could present a limitation as it may not encompass all views, however triangulation of different sources of data from various clinicians across different sites increased the applicability of the study findings. It is possible that the reliance on a single coder in the analysis of the interviews carried a risk of bias. To reduce this, a draft of early emerging themes was sent to a sample of participants for comments and feedback and the co-authors also scrutinised the initial template of analysis and provided critical feedback.

Conclusion

This study identified a range of perspectives on the involvement of senior doctors in patient care at the ED front door, based on the participants' individual experiences. The resulting insights and definition of SDT will set the stage for future work to examine the clinical effectiveness of this model accompanied by the relevant economic analysis that takes into account different local contextual factors.

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