How is Same Day Emergency Care (SDEC) Being Implemented Across England?

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ABSTRACT (300/300)

BACKGROUND

In 2019, NHS England (NHSE) announced the implementation of Same Day Emergency Care (SDEC) in every hospital with a type 1 emergency department (ED). SDEC aims to provide timely

and appropriate specialist care to patients on the same day, expediting their investigations and avoiding unnecessary hospitalisation. There is limited evidence for SDEC adoption and its effectiveness. This mixed-method study identifies and analyses SDEC implementation methods and describes subjective workforce views through both surveys and interviews.

METHODS

An electronic survey was developed and distributed via email to 60 randomly selected hospitals in England with type 1 EDs. Follow-up interviews were conducted to contextualise survey responses and explore perceptions of SDEC and subjective barriers to efficiency.

RESULTS

In total, 39 responses (including dual responses from SDEC and ED staff) were received from 34 hospitals (57%). All hospitals had an acute medical SDEC, with more limited implementation of surgical (53%) and frailty SDECs (29%). The SDECs opened on average 12 hours on weekdays and 10 hours on weekends. Referral and patient selection models varied. 79% of hospitals used their SDECs as emergency bed spaces. 85% of units assessed between 31-50 patients/day, with no unit admitting >10 patients per day. Although interviews were generally positive regarding SDEC efficiency, issues included differing perceptions of SDEC purpose, variability in models of patient selection, unclear referral pathways and inconsistent staffing levels.

CONCLUSIONS

Since its introduction, SDEC has been implemented and developed with great variability across England. While the introduction of the NHS SAMEDAY guidelines in 2024 may assist in mitigating these discrepancies nationally, more research is vital to identify optimal methods of service delivery and evaluation of this new healthcare system.

KEY MESSAGES

- **What is already known on this topic**

Same Day Emergency Care (SDEC) was introduced by NHS England in 2019 to allow acute patients with a high risk of admission to be assessed, managed and discharged by specialty care within the same 24 hour period. With a lack of concise national guidelines on the implementation of SDEC, there are concerns that variable adoption will hamper the efficacy of this service. Small-scale local projects have demonstrated reasonable admission avoidance, but the impact of this nationally is unclear.

· **What this study adds**

Our study demonstrates that although there has been widespread adoption of medical SDECs, there has been poor implementation of surgical and frailty SDEC units. Most units assess large numbers of patients and admit few, however due to patient selection, the impact on admission reduction remains unclear. This study also demonstrates the number of units being used for emergency bed spaces, which is contrary to current guidance. Interviewees highlighted the paucity of funding and staffing, varied perceptions of the purpose of SDEC and inconsistent referral pathways.

· **How this study might affect research, practice or policy**

This study may inform future SDEC national implementation guidance and funding. It may also inform large cohort studies that evaluate multiple units on a patient level in order to ascertain true efficacy.

KEYWORDS

Emergency Care; Ambulatory Care; Service Provision; SDEC

INTRODUCTION

In 2019, National Health Service England (NHSE) introduced Same Day Emergency Care (SDEC) for patients at high risk of hospital admission to receive rapid specialty assessment, diagnosis and discharge within the same 24-hour period. All hospitals with a type 1 emergency department (ED), defined as consultant-led emergency services with full resuscitation capacity open 24/7, were

instructed to have medical and surgical SDEC units open 12 hours per day, 7 days per week and open to referrals from Emergency Medicine (EM) clinicians, General Practitioners (GPs), ambulance teams, NHS 111 and other community services. Hospital Trusts were instructed to avoid using SDECs as emergency bed spaces in times of increased patient demand (bedding), to ensure they retain their original purpose [1].

However, due to a lack of precise national implementation guidelines, there are concerns about missed opportunities for all patients, particularly those with surgical or frailty needs, with the UK Royal College of Emergency Medicine (RCEM) notably stating that the value of SDEC is being wasted [2]. A joint statement issued by RCEM and The Society for Acute Medicine (SAM) highlighted that an SDEC unit should not be bedded in an emergency and should not be utilised by other teams to deliver services that could be delivered in outpatient settings. Variations in care pathways and differences in understanding has impacted the ability of SDEC to achieve its goal of streamlined acute patient care [3].

The aims and objectives of this study are as follows:

1. To describe the current provision of SDEC in England
2. To understand the different models of care currently being delivered
3. To describe the barriers and facilitators to delivering effective SDEC

The study used a survey approach, supplemented by follow-up interviews to gain greater insight into personal experiences and opinions regarding the service.

METHODS

Study Design

A mixed-methods approach was employed, using a cross-sectional survey to generate quantitative data using multiple-choice and Likert Scale options and semi-structured follow-up interviews to

contextualise survey data. The survey was conducted from 04/03/2024 to 19/04/2023 with interviews occurring between 23/04/2024 and 23/05/2024. This 'sequential explanatory' mixed-methods approach combines positivistic and naturalistic methods to expand the breadth and depth of the study, contextualising the data gathered in the survey.

Survey Tool

The survey was designed by JW and TM using the software Qualtrics and was divided into two sections, with respondents only completing the section relevant to their main area of work. The ED section covered the topics of service structure and delivery, methods and guidance relevant to SDEC referrals and patient delays. The SDEC section also covered service structure and delivery, in addition to staffing, facilities, patient referral sources and outcomes and numbers of patients assessed (**Appendix S1**). This was piloted at Sheffield Northern General Hospital with clinicians working across both ED and acute medical SDEC identified by SC (three ED consultants, one acute medical consultant and one nurse consultant working in acute medical SDEC) with adjustments made following feedback.

Data Collection

A list of all hospitals with a type 1 ED in England was generated using publicly available data and each assigned a number. Using simple randomisation with a random number generator, hospitals were selected and the presence of any SDEC confirmed using relevant hospital websites. Any hospitals not possessing an SDEC were excluded. This process was repeated until a sample size of 60 (30%) was reached. We determined that sampling 30% of services would be both feasible for the study team and provide a reasonable overview of services. The survey was then distributed electronically to the ED and SDEC clinical leads via email, identified using publicly available information on the internet. Three reminder emails were sent to those who did not respond (JW and TM), supplemented by individual emails sent by SC and SM in the event of a lack of response.

Those respondents providing consent as part of the survey to be contacted were invited to follow-up interviews, conducted using Google Meet by JW and TM. These were designed to elicit detailed,

subjective opinions regarding SDEC to expand upon the survey responses and again were divided by SDEC and ED. The ED respondents were asked about the topics of their hospital's SDEC structure and development, patient referrals and flow and future service developments. The SDEC respondents were also asked about service structure, development and future plans, in addition to facilities, recent advances and their opinions on the service. A target number of interviews was not set, instead a watch and wait approach was used whereby the feasibility of those consenting to be contacted was assessed. As informed by Varpio *et* al, a conceptual framework was applied prior to interviews to focus on the topics of SDEC development, efficacy and future developments, ensuring questions asked did not overlap with previous research [4]. The interview sheet is in **Appendix S2**.

Analysis

Survey data was summarised in tables and the key themes identified from the interviews described narratively. Descriptive statistics took the form of means with confidence intervals and were conducted using Microsoft Excel 2010 (Microsoft Corporation, Redmond, WA, USA). Statistical comparisons were deemed unhelpful in answering the research question and were thus not undertaken.

The interviews were transcribed using built-in live transcription software and with the use of the software NVivo, coding was conducted by TM using a combination of inductive and deductive approaches to identify and organise key themes. Thematic analysis was undertaken by TM to generate key themes and subthemes. Regarding positionality, JW is an Emergency Medicine Trainee and TM was a masters student. To avoid personal biases influencing work, consensus between JW and TM was aimed, with final consensus reached by SM in the event of any discrepancies.

Ethical approval was sought from and granted by the University of Sheffield Research Ethics Committee (Reference Number 057792).

There was no patient or public involvement in this research.

RESULTS

Survey Results

77 responses were received, with 34 incomplete responses and 4 duplicate responses removed. This left 39 responses representing 34 (57%) sampled hospitals. 26 (67%) responses were from those working in EDs and 13 (33%) were from those working in acute medical SDEC units. 29 (74%) of respondents were doctors, 7 (18%) were nurses and 3 (8%) non-clinical operational managers. This is summarised in **Figure 1**.

[INSERT FIGURE 1 HERE]

The data from SDEC and ED arms of the survey are in **Table 1** and **Table 2**. Out of the 34 hospitals, all had Acute Medical SDECs (100%), 10 Frailty (29%), 18 Surgical (53%), 4 Obstetrics and Gynaecology (12%), 2 Paediatric (6%) and 6 Other (18%), which included the specialties of Emergency Medicine, Plastic Surgery, Cardiology, Oncology and Ophthalmology.

ED responses:

Highlighting the key findings from the ED arm (**Table 1**), the mean opening times were just below the 12 hour, 7 day operational target set by NHSE and shorter than the hours reported by SDEC. Modality and accessibility of referral guidelines were variable, with a median ease of use ranking of 7/10 (Inter-Quartile Range 5 – 8). A variety of methods were available, but the most commonly used were face-to-face and online referrals over telephone / bleep communication. 92% of EDs could refer patients directly from triage. 46% of respondents reported 6 - 10 daily delays to transfer. 54% respondents cited an average of <1 hour for patients to reach SDEC). Most patient transfer delays occurred between the average times of 14:21 - 18:19 (95% CI 13:16 - 15:26 to 17:33 - 19:05). Referral delay was defined as the time between identifying a patient appropriate for SDEC and the referral process taking place, based on each hospital's guidance.

SDEC responses:

From the SDEC arm (**Table 2, Figures 2 and 3**), all respondents cited the presence of a senior decision-maker on their unit (consultant, registrar, nurse consultant or senior advanced clinical practitioner). No unit employed a social worker, occupational therapist or physiotherapist. Most units had a mixture of bed or chair spaces, interview rooms and procedure rooms. The majority of daily referrals into SDEC came from ED (54% respondents citing 21+ referrals), with varied numbers from primary care with <5 / day seen from other community services, NHS 111 and ambulance services. 85% of SDEC units could reject referrals. Staffing (54%) and access to investigations (46%) were cited as the main reasons for patient discharge delay. The majority of respondents (62%) estimated that more than 40 patients were reviewed on the unit daily. Hospital admissions were low, with no unit surveyed admitting more than 10 patients daily. Finally, 79% of units were used as emergency bed spaces in times of increased clinical demand.

Table 1 – Survey results from the ED arm (Number of Responses = 26)

Mean Perceived Hours of Operation (± 2SDs)						
Weekday				Weekend		
11.95 (9.09 – 14.81)				10.45 (4.59 – 16.31)		
Mean Perceived Hours Referral Window Open (± 2SDs)						
Weekday				Weekend		
10.90 (4.18 – 17.62)				9.95 (1.61 – 18.29)		
Location of SDEC (n (%))						
Within ED	Same Corridor	Same Building	Different Building	Different Hospital	Virtual	Other
2 (8)	5 (19)	16 (62)	2 (8)	0 (0)	0 (0)	1 (4)
Training Received (n (%))						
How to Refer		Referral Eligibility		Other		No Training
14 (54)		24 (92)		2 (8)		2 (8)

Location of Referral Guidelines (n (%))						
Trust Intranet	Trust Guidelines	Trust Emails	Departmental Posters	Verbal Discussion with SDEC	No Guidelines	Other
15 (58)	12 (46)	8 (31)	1 (4)	16 (62)	1 (4)	4 (15)

Team Members Who Can Refer (n (%))				
Doctor	ACP	PA	Nurse	Other
26 (100)	24 (92)	7 (27)	24 (92)	5 (19)

Referral Method (n (%))				
Telephone / Bleep	Paper Referral Form	Online Referral Without Discussion	Face-to-Face Referral	Other
23 (88)	2 (8)	12 (46)	9 (35)	4 (15)

Causes of Delays to Patient Referral (n (%))				
Staff Availability	Time Availability	Referral Method	No Delays Experienced	Other
20 (77)	18 (69)	9 (35)	1 (4)	6 (27)

Estimated Daily Number of Patient Transfer Delays (n (%))				
1 – 5	6 – 10	11 – 15	16 – 20	21+
9 (35)	12 (46)	4 (15)	0 (0)	1 (4)

Average Time Between Referral and Patient Arrival on SDEC (n (%))				
<1 Hour	1 – 2 Hours	2 – 3 Hours	3 – 4 Hours	4+ Hours
14 (54)	10 (38)	2 (8)	0 (0)	0 (0)

SD, Standard Deviation; ED, Emergency Department; n, number of responses; SDEC, Same Day Emergency Care; ACP, Advanced Clinical Practitioner; PA, Physician Associate

Table 2 – Survey results from the SDEC arm (Number of Responses = 13)

Average Hours of Operation (± 2SDs)	
Weekday	Weekend
13.38 (10.06 – 16.70)	11.23 (3.19 – 19.27)

Average Hours Referral Window Open (± 2SDs)	
Weekday	Weekend
11.65 (3.21 – 20.09)	9.77 (-1.55 – 21.09)

Staff Roles Present (n (%))

Consultant	Registrar	Nurse	SW	OT	Physiotherapist	ACP / PA	IMT / ACCS	Support Worker	Other
12 (92)	12 (92)	11 (85)	0 (0)	0 (0)	0 (0)	11 (85)	6 (46)	8 (62)	3 (23)

Median Number of Staff Members (IQR)

Consultant	Registrar	Nurse	ACP / PA	IMT / ACCS	Support Worker	Other
1 (1 - 2)	1 (1 – 2)	5 (2 – 5)	2 (1 – 4)	2.5 (1 – 4)	2 (1 – 2.5)	2 (1.5 – 2.5)

SDEC Attendance Coding (n (%))

New Admission	Outpatient / Ward Attender	Other
8 (62)	6 (46)	0 (0)

Facility Type Available by Response (n (%))

Bed Spaces	Chair Spaces	Procedure Rooms	Interview Rooms	Nurses Station	Computer / Work Stations	Clinician Room	Other
10 (77)	9 (69)	8 (62)	3 (23)	13 (100)	13 (100)	11 (85)	4 (31)

Median Number of Facilities Available (IQR)

Bed Spaces	Chair Spaces	Procedure Rooms	Interview Rooms	Nurses Station	Computer / Work Stations	Clinician Room	Other
6 (3 – 6)	20 (7 – 29.5)	1 (1 – 1.5)	2 (1.5 – 3)	1 (1 – 1)	9 (5 – 12)	4 (1 – 6)	1 (1 – 10.5)

Onwards Patient Referral Destination by Median Estimated Percentage (IQR)					
Inpatient Acute Medicine	Inpatient Specialty Wards	Outpatient Clinics	GP	Home	Other
5.5 (5 – 10)	2 (2 – 9)	10 (5 – 15)	Only One Response – 5	90 (86 – 95)	None Recorded

Barriers to Discharge (n (%))				
Staffing	Transport	Access to Tests	No Barriers	Other
7 (54)	3 (23)	6 (46)	1 (8)	4 (31)

Scoring System Used to Aid Referrals (n (%))					
NEWS2	AMB	GAPS	CFS	Other	None
12 (92)	1 (8)	0 (0)	1 (8)	1 (8)	1 (8)

Reasons for Patient Referral Rejection (n (%))					
Age	Awaiting Results	Requirements Outside of SDEC Scope	Not Ambulatory	Clinical Condition	Other
0 (0)	0 (0)	11 (100)	6 (55)	8 (73)	2 (18)

Daily Number of Patients Seen (n (%))					
0 – 10	11 – 20	21 – 30	31 – 40	41 – 50	50+
0 (0)	0 (0)	2 (15)	3 (23)	4 (31)	4 (31)

Daily Number of Patients Admitted (n (%))					
0 – 10	11 – 20	21 – 30	31 – 40	41 – 50	50+
13 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

SD, Standard Deviation; n, number of responses; IQR, Inter-Quartile Range; SW, Social Worker; OT, Occupational Therapist; ACP, Advanced Clinical Practitioner; PA, Physician Associate; IMT, Internal Medicine Trainee; ACCS, Acute Care Common Stem; ED, Emergency Department; SDEC, Same Day Emergency Care; GP, General Practice; NEWS2, National Early Warning Score 2; AMB, Ambulatory Care Score; GAPS, Glasgow Admission Prediction Score; CFS, Clinical Frailty Score

[INSERT FIGURES 2 AND 3 HERE]

Follow – Up Interview Results

Interviews were conducted with 7 individuals, 4 from SDEC (2 consultant clinical leads and 2 non-clinical service managers) and 3 from ED (all consultant clinical leads). The key themes identified were: 'Evolution of SDEC', 'Resources', 'Referrals and Streaming' and 'Effectiveness of SDEC', with sub-themes illustrated in **Table 3**.

Table 3 - Key themes and sub-themes identified from the follow-up interviews

	Themes			
	Evolution of SDEC	**Resources**	**Referrals and Streaming**	**Effectiveness of SDEC**
Sub-Themes	Purpose of SDEC	Staffing	Admission Policies, Pathways and Structures	Challenges for Model Delivery
	Implementation of SDEC	Types of SDEC	Flow and The Patient Journey	Bedding of an SDEC
	Development of SDEC	Unique Facilities Within SDEC	Selecting the Correct Patient Cohort	Opinions Of SDEC

	Barriers to Implementation	ED, Acute Medicine and SDEC	The SDEC – GP Pathway	

SDEC, Same Day Emergency Care; ED, Emergency Medicine; GP, General Practice

Evolution of SDEC

There was agreement amongst the interviewees that the focus of SDEC should be avoiding unnecessary admissions for appropriate patients that can be managed within the same day as their presentation. There was concern that priority was focused on improving ED waiting times by 'increasing flow out of the ED waiting room' as opposed to preventing admission of unwell patients who could be managed as outpatients.

QUOTE 1 – Interviewee D (SDEC Consultant Clinical Lead) – "When I take low acuity patients, all I'm doing is helping to decompress the waiting room. I'm not creating flow or space within majors, which is where I want to be having the biggest impact."

Interviewees highlighted a paucity of national guidelines and recommended staffing models for implementation of SDEC units, resulting in variation in service delivery and a reliance on learning from local SDEC models (**Quote 2**). Conversely, in some cases this has resulted in greater coordination between regional units (**Quote 3**) . There lacked a consensus on what outcomes should be measured to assess the effectiveness of SDEC.

QUOTE 2 – Interviewee D – "The only thing I've ever seen around SDEC staffing model is … from other sites, but what happens on one site doesn't necessarily mean you can lift and shift it to the one you're working in. So, a lot of units were adopting different workforce models"

QUOTE 3 – Interviewee E (ED Consultant Clinical Lead) – "We have a monthly meeting of all the SDECs in the organization within the NCA (northern care alliance). We meet monthly and discuss pathways that are currently being implemented in one area"

While two interviewees highlighted the improvement in SDEC facilities, operating hours and staffing, particularly the use of ACPs, others stated that a major challenge had been the change in working style and differing opinions on SDEC purpose, particularly amongst acute medical consultants, many of whom had developed a long-term approach to patient management (**Quote 4**). This resulted in some expressing a lack of confidence in the system, impacting on its success.

QUOTE 4 – Interviewee D (SDEC Consultant Clinical Lead) - "if you put a group of acute medical consultants in a room and ask them what SDEC is, you'll get a different answer from each of them…it was a big culture change for consultants to feel enabled to manage people in the same day and not admit"

Need for Adequate Resources

Interviewees highlighted the importance of staffing SDEC with a multidisciplinary (MDT) approach (**Quote 5**) and ensuring that a senior clinical decision-maker is present to ensure appropriate investigation of clinically complex patients.

QUOTE 5 – Interviewee G (SDEC Non-Clinical Service Lead) – "We're really successful in recruiting in the ACP model …but we don't just take from the traditional nursing route. So, we have therapists [and] we've had paramedics previously. So, a whole varying range of MDT really contributes to the department"

Interviewees described the importance of developing speciality SDEC units, particularly frailty, whilst highlighting the challenges, with one interviewee highlighting that the frailty team offers a multi-faceted approach to managing this patient cohort. (**Quote 6**). One interviewee explained the benefits of their "hub and spoke" model of acute medical SDEC, where the SDEC acts as a central hub to facilitate specialty medical review instead of sending these patients to outpatient clinics, although another expressed caution about such an approach (**Quote 7**).

QUOTE 6 – Interviewee F (ED Consultant Clinical Lead) - "Our frailty team are also really good at ED in reach even when their physical SDECs are full. And they are really good at virtual ward follow-up, which is I think very beneficial for these patients. These [patients] get to go home quickly and not

sit on a trolley and … decondition and [become] delirious …, but they still get the comprehensive geriatric assessment [with] MDT care."

QUOTE 7 – Interviewee A (ED Consultant Clinical Lead) – "I don't think the SDEC is the place for cardiologists and gastroenterologists to get a quicker turnaround on some tests and investigations for their patients that they would otherwise put through a clinic and that's because they don't have clinic capacity."

All interviewees highlighted that access to point-of-care blood testing, priority access to radiological investigations and multi-site electronic patient lists had improved efficiency.

Referrals and Streaming

Interviewees identified the importance of experienced triage staff and clear referral criteria to support timely, appropriate patient flow to SDEC from ED. Current guidance was considered ambiguous, affecting the quality of referrals. One SDEC interviewee believed that shifting from telephone to online referrals would improve the patient journey.

There was agreement that SDEC patients needed careful selection, rather than simply increasing the flow from ED waiting rooms (**Quote 8**). Models proposed to improve patient selection included:

- Pull methods, whereby SDEC staff identify patients ahead of referral to review on SDEC
- Push methods, where patients are referred prior to ED clinician assessment, usually from triage This relies on detailed knowledge of referral pathways and the role and limitations of SDEC.
- Hybrid push-pull methods have been proposed but not yet analysed.

The relationship between SDEC and Primary Care was described as poorly-implemented. While increasing the number of direct and appropriate referrals from GPs into SDEC is beneficial, ready access to an SDEC clinician and close communication with Primary Care networks is key to avoid inappropriate referrals (**Quote 9**).

QUOTE 8 – Interviewee F – "Flow is out of majors on trolleys, [this is] where we actually need flow to be out of because those patients are all still waiting for bed and the wards are still backed up"

QUOTE 9 – Interviewee A – "I think the awareness of our local GP Partners need some work…They're not quite sure what SDEC is and the availability of an SDEC consultant on the phone to talk to a GP is instrumental in two things: instrumental in making sure the patients come to SDEC but also instrumental in making sure that the GP doesn't just send the patient to A&E because that's the path of least resistance"

Challenges to Effectiveness of SDEC

Interviewees highlighted the importance of clear communication regarding the purposes of SDEC. A lack of understanding, particularly amongst senior clinicians, was thought to be a key reason for variable implementation of SDEC services (**Quote 10**).

QUOTE 10 – Interviewee E – "developing a service is great, but if people don't understand the premise of why you start something or what your aims and objectives are, the service can't continue"

The majority of interviewees stated that staffing is a key barrier to the effectiveness of SDEC. As the size and scope of the services increases, staffing needs to keep pace, otherwise the service cannot operate efficiently and patient demand will not be met. Staff rotation resulted in a lack of consistent unit leadership, ultimately resulting in patchy service implementation.

The most debated aspect amongst our interviewees was the topic of medical SDEC leadership. Some were in favour of Acute Medicine having sole-ownership of the service, whilst others proposed a hybrid approach whereby ED and Acute Medicine share the service, due to their synergistic nature (**Quote 11**). The main barrier to this was identified as the required communication and co-ordination between the two teams with conflicting priorities.

QUOTE 11 – Interviewee A – "We have had a lot of say here locally and how SDEC is run and our SDEC here has 50% from ED consultants and 50% from the acute medical consultants…. I think the combined model of ED and medical consultants works"

The use of SDEC as emergency bed spaces was controversial and occurred in some units. There was unanimous agreement that this is contrary to the initial SDEC plan, severely compromising the same day approach, but there was also acceptance that bedding is often an inevitability (**Quote 12**).

QUOTE 12 – Interviewee D – "People will say don't bed your SDEC, but … we know that ED delay related harm figures, we know what risk that is for those patients. So, I get It's a difficult one…that's the main reason it's repurposed"

Overall, opinions on SDEC were generally positive with Interviewees reflecting on the positive impact on patients' emergency care journeys and that when SDEC is appropriately staffed and resourced, it is also very popular with staff (**Quotes 13 and 14**).

QUOTE 13 – Interviewee B (SDEC Consultant Clinical Lead) – "I think efficiency's probably that the thing that people appreciate the most about the place, …it's facilitated early discharge, it's meant that patients can get seen and sorted in an efficient way…I think on the whole it's taken some pressure off the system"

QUOTE 14 - Interviewee D - "When it wasn't bedded, and the demand wasn't as it is now people (staff) I think really liked it. I think we had really good feedback from patients that they felt it was a really good experience."

DISCUSSION

This research expands upon the work conducted in the NHS Benchmarking Network SDEC survey [4] and demonstrates that models of staffing, resources and referrals are variable amongst sites, requiring collaboration and coordination between different SDEC units. The survey data suggests that SDEC has been successful in avoiding admission, with follow-up interviews highlighting that this relies on appropriate staffing and resources. This has been reported elsewhere, with Atkin *et al* demonstrating from the Society for Acute Medicine Benchmarking Audit that 82.4% patients who accessed SDEC services did not require overnight admission [5].

Acute Medical SDEC units have been widely adopted, with frailty and surgical services less so and interviewees highlighted that this should be a future priority. These findings are consistent with those demonstrated in the NHS Benchmarking Network Survey, with 25% and 53% of responders having frailty and surgical SDEC services respectively [6]. Recent literature has detailed the difficulties of developing frailty services. Elias *et al* found that SDEC review of patients with frailty needs was associated with a 2-fold increase in multi-service usage [7]. McNamara *et al* built upon this paper in a recent editorial, highlighting that patients with frailty needs are often complex and need more nuanced and individualised management approaches [8]. While there was no consensus on the optimum method of service delivery, clear communication regarding the purposes and capabilities of SDEC and a system that is adapted to the specific needs of its population and existing hospital pathways are essential.

There is a paucity of high-quality SDEC literature investigating the implementation and effectiveness of SDEC on a national level [9]. While NHSE released the SAMEDAY Strategy in February 2024 which outlined service specification, scope, pathways and staffing with suggestions on metrics of evaluation [10], it did not propose an approach to modelling and has not yet been validated.

The MDT model supported in our interviews is also supported in the literature, with Gibson *et al* recommending that an SDEC unit use an MDT approach to staffing, with the presence of a senior-decision maker to aid flow of patients [11].

Atkin *et al* identified that 38% of hospitals did not utilise standardised patient selection criteria with the majority of hospitals accepting referrals directly from ED triage (82%) and from community paramedic services (63%) [5]. These findings are entirely consistent with those from our survey and reflects the varying models of patient selection reflected in the interviews.

In our survey, the majority of SDEC units utilised NEWS2 to guide patient selection. Atkin *et al* have studied alternative scoring systems, concluding that data is limited on their use and, in particular, the GAPS and Amb scores are unsuitable [12, 13].

Atkin *et al* also found that during periods of increased patient demand, 46.7% of units are used as inpatient beds, far less than the 79% of units in our survey [14]. 'Bedding' is a significant issue as it significantly limits the functionality of SDEC.

LIMITATIONS

Our study has limitations. Due to time constraints, we were only able to sample 60 out of 171 (35%) hospitals with Type 1 EDs and SDEC units. This was further affected by a response rate of 57% for our survey, meaning that the 26 hospitals that did not respond may systematically differ . This was compunded by the lack of responses from SDEC units run by specialties other than acute medicine.

Due to the novel nature of the survey, it is inevitable that questions pertaining to aspects of SDEC may have been missed. Surveys also attract an element of inherent limitation attributed to their subjective nature and biases of respondents. The distribution of our survey also relied on the availability of information in the public domain, limiting its reach.

Our survey assumed that all specialties of SDEC in a single centre had the same opening hours and therefore may have under-represented those services with alternative hours of operation. Furthermore, estimates were used for the percentage of onward referrals, so may have under- or over-represented the true value.

A limitation of Qualtrics is that a new response is generated every time the survey link is accessed, resulting in multiple un-filled responses that may be from the same responder. To avoid the risk of skewing our data, the decision was taken to remove all incomplete responses, which may have underestimated our survey response rate.

Our follow-up interviews were also affected by poor uptake and responder bias, meaning that we cannot claim with confidence that thematic saturation was reached. It is also a recognised phenomenon that individuals who opt-in for interviews are more likely to share strong opinions, thus resulting in a skewed interpretation of the opinions held on SDEC amongst clinicians.

The decision to groups ACPs and PAs together in the survey is a key limitation due to the significant differences in their roles and autonomy.

The NHS SAMEDAY Strategy has proposed monitoring metrics, including objective data and patient-centred outcomes and has also created the 'SDEC Index', which is a list of proposed list of conditions that would be appropriately reviewed on SDEC. It is yet to propose ideal methods of modelling. More work is needed to validate the impact of this strategy, which was introduced during our study period and thus not analysed by our survey and interviews. Ultimately, more research is required to not only explore the implementation and effectiveness of SDEC on a national level, but also to establish standardised methods of service delivery across various specialties and patient groups.

CONCLUSIONS

Since its introduction, SDEC has been implemented nationally with differing local models of service delivery, such as staffing and patient streaming methods. Interviewees highlight that when adequately staffed and resourced, SDEC can improve efficiency and is popular with staff and patients. However, it has been limited by an initial lack of consensus implementation guidance and staffing resources, possibly resulting in the under-representation of specific patient groups in this survey, such as surgical and frailty. Bedding of an SDEC is also a controversial topic, with some stating this is an unfortunate necessity and others stating that it significantly hampers service delivery. Ultimately, more research is required to analyse and optimise this important service.

COMPETING INTERESTS

There are no competing interests to declare

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DATA SHARING STATEMENT

The reasonable sharing of study data would be considered upon formal request addressed to the research team.

AUTHOR CONTRIBUTIONS

SM and SC co-ordinated the study. SM and JW were responsible for study conception, with SC and TM assisting with design and dissemination of the survey and interview proforma. JW and TM conducted the interviews and were responsible for data analysis and interpretation. All authors were responsible for the drafting of this paper.

DETAILS OF ETHICS APPROVAL

Ethical approval was sought from and granted by the University of Sheffield Research Ethics Committee (Reference Number 057792).

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