

Society for Acute Medicine Benchmarking Audit

SAMBA 2022 Report

A National Audit of Acute Medical Care in the UK



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Welcome to SAMBA 2022

The Society for Acute Medicine Benchmarking Audit (SAMBA) 2022 provides a snapshot of the care provided for acutely unwell medical patients in the UK over a 24-hour period on Thursday 23rd June 2022.

At the time that SAMBA22 took place, urgent and emergency care services were already under increasing pressure. The number of patients waiting within the Emergency Department for over 12 hours for an inpatient bed has been rising, with all parts of the emergency, acute care and inpatient pathway needing to confront the increasingly complex challenge of maintaining the quality and of care provided.

This report is written for the benefit of all those involved in acute medical care, including healthcare professionals, healthcare commissioners, all UK governments and, most importantly, patients and public.

The report has been sponsored by the Society for Acute Medicine (SAM). Everyone involved in conducting the audit have provided their time voluntarily. Collecting data and running SAMBA at participating hospitals is a huge undertaking and therefore both the Society and the SAMBA team extend a massive thank you to all of those involved at each site.

Our hope is that the insights gained through SAMBA can be used to improve the care we provide for acute medical patients.

Abbreviations

ACP	Advanced Care Practitioner
AEC	Ambulatory Emergency Care
AIM	Acute Internal Medicine
AMU	Acute Medical Unit
ANP	Advanced Nurse Practitioner
CQI	Clinical Quality Indicator
ED	Emergency Department
GP	General Practice
ICU	Intensive Care Unit
NEWS	National Early Warning Score
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
PA	Physician Associate
RCP	Royal College of Physicians of London
RCPE	Royal College of Physicians of Edinburgh
SAM	Society for Acute Medicine
SAMBA	Society for Acute Medicine Benchmarking Audit

Executive Summary

SAMBA 2022 took place on Thursday 23rd June 2022, with follow-up data collected 14 days later. Acute medical teams from 149 hospitals within the UK collected data on operational performance, clinical quality indicators and standards for acute care set by SAM,⁽¹⁾ NICE,⁽²⁾ and the RCP and RCPE.^(3, 4)

Data was collected from 8344 patients.

Key findings

Performance against clinical quality indicators

- 68.8% of unplanned admissions had an early warning score recorded within 30 minutes of arrival to hospital
 - This target was met by 78.6% in SAMBA21, 74.9% in WinterSAMBA20, and 81.2% in SAMBA19.
- 78.7% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital
 - This target was met by 87.4% in SAMBA21, 84.4% in WinterSAMBA20, and 91.0% in SAMBA19.
- 49.8% of unplanned admissions who required a medical consultant review were seen within the target time
 - This target was met by 67.8% in SAMBA21, 61.9% in WinterSAMBA20, and 69.6% in SAMBA19.
 - This target was least likely to be achieved in unplanned admissions initially assessed in the Emergency Department who arrived between 08:00-20:00 (28.0% seen within 6 hours)

Outcomes at 14 days

- 28.9% of patients (unplanned admissions) were discharged the same day (31.5% in SAMBA21)
- 41.1% of patients had an inpatient hospital admission that lasted for 1-7 days (22.2% in SAMBA21) and 9.6% had an inpatient hospital admission that lasted for 8- 14 days

Overall message

Performance against all key clinical quality indicators was lower than in SAMBA2021. Acute care services are facing ever increasing pressures – careful consideration of how clinical quality and efficient patient pathways can be maintained is needed. Emergency medicine remains the most common route of referrals, with many units seeing a high proportion of their patients within the Emergency Department. Close working between specialties is needed to improve patient pathways.

Setting the scene

Acute medicine services across the UK continue to face increasing pressures and rising demand for services. Services have already undergone substantial changes to service structure and delivery that were required to deal with the multiple peaks of Covid-19 infection faced since early 2020^(5, 6), as well as the longer standing 'winter pressures' with seasonal variation in demand.⁽⁷⁾ Unfortunately the demands on all parts of the urgent and acute care pathway continue to increase, from longer wait times for ambulance response in the community, increased wait times within Emergency Departments, and more patients than previously waiting more than 12 hours for admission from the Emergency Department to an inpatient bed.^(8, 9)

Acute medicine services continue to adapt in the services that they are provide. This ranges from the expansion and improvement of established services to the adoption of new strategies and ways of working, from Same Day Emergency Care (SDEC) to frailty units, respiratory support units, enhanced care beds, and virtual wards and hospital at home. ⁽¹⁰⁻¹²⁾

SAMBA22 aims to assess the same key clinical quality indicators as previously, with some aspects of data collection adapted to begin to expand our understanding of how acute medicine services perform and the care they provide in this changing landscape of urgent care services.

Acute medicine

Acute (internal) medicine provides immediate, specialist management of unwell adult patients, usually over the age of 16, presenting to hospital with medical conditions.⁽³⁾ Patients may be referred from multiple sources, including emergency medicine, primary care, paramedic services, and outpatient medical services.

Acute medicine services aim to provide rapid, high quality assessment and treatment for a wide range of patients, from those who can be managed through same day emergency care (SDEC),⁽¹³⁾ to those who are physiologically unstable and require escalation to higher level care. Acute medical care must be timely, organised, well-led and delivered by the right staff – aiming to ensure the patient is in the right place at the right time.

The Society for Acute Medicine was founded in 2000, and over the last 21 years has expanded and developed a network of consultants, trainees and multidisciplinary members, delivering education, collaborative research, twice yearly conferences, and the SAMBA audit, as well as engaging with other organisations and advocating for improvements in care for our patients.

SAMBA

The Society for Acute Medicine Benchmarking Audit (SAMBA) aims to provide a comprehensive snapshot of acute medical care. The audit has taken place annually, over a pre-selected 24-hour period in June, since 2012. In the UK, SAMBA is recognised by the Healthcare Quality Improvement Partnership (HQIP).

SAMBA aims to:

- 1) compare the care delivered through acute medical units (AMUs) and ambulatory emergency care (AEC) services provided by acute medical teams against the Clinical Quality Indicators (CQIs) set for AMUs by the Society for Acute Medicine in 2011
- 2) enable individual AMUs to compare their performance to that of their peers.

The definitions of compliance with the CQIs used in SAMBA22 are unchanged from those used in SAMBA19 onwards, to facilitate comparison between the results.⁽¹⁴⁻¹⁶⁾

Clinical quality indicators:

Clinical Quality Indicator 1: All patients admitted to an AMU should have an early warning score (EWS) measured upon arrival.

Compliance is defined as a full set of physiological observations recorded within 30 minutes of arrival to the hospital.

Clinical Quality Indicator 2: All patients should be seen by a competent clinical decision maker within 4 hours* of arrival on AMU, who will perform a full assessment and instigate an appropriate management plan.

**In most cases, it is expected that clinical assessment and initiation of appropriate management should be undertaken in much less time, with patient assessment prioritised in accordance with clinical need.*

This time interval is measured from the time of arrival at hospital to time of first review by a competent clinical decision maker, whether in ED, AEC, or AMU. This is the person performing the first assessment (clerking) and does not include brief assessment during a triage process. A competent clinical decision maker may be an ACP (Advanced Care Practitioner), PA (Physician Associate) or any grade of doctor.

Clinical Quality Indicator 3: All patients should be reviewed by the admitting consultant physician or an appropriate specialty consultant physician within 6 hours of admission to hospital (if admitted within daytime working hours) or within 14 hours of admission to hospital (if admitted outside daytime working hours).

This time interval is measured from the time of arrival at hospital to the time of the first consultant physician contact, whether in ED, AEC, or AMU. Daytime working hours are 08:00-20:00.

Definitions

Definitions of compliance are unchanged from SAMBA19, WinterSAMBA20 and SAMBA21. The background to these definitions is discussed within the SAMBA19 Report.⁽¹⁴⁾

In keeping with definitions used in the last 3 years, time intervals are measured from arrival to hospital, for all ports of entry. This provides a more accurate reflection of a patient's hospital experience. Although the majority of patients start their journey in the ED, some patients will be admitted directly to AMU or AEC. Many medical patients may never reach the AMU, being discharged from ED or redirected to AEC. For patients referred from the ED, the total waiting time from arrival at hospital reflects the function of both the ED and Acute Medicine teams and departments, and its interpretation is therefore different to the interpretation of waiting times for patients who are admitted directly to AMU or AEC. To aid interpretation, we have also presented information about time to review and location of review by medical clinician.

Hospital Participation

Participation in SAMBA is voluntary for AMUs, but is now recognised by HQIP. The full list of hospitals who took part in SAMBA22 is available in Appendix 1. Participating units have a bespoke report of their performance provided to registered participants at each unit. Any queries regarding local reports should be directed to samba@acutemedicine.org.uk.

Organisation & Methods

SAMBA is planned and conducted by the SAMBA Committee. The current questions included in SAMBA have been developed with input from the SAMBA Academy and the SAM QI committee.

SAMBA22 was promoted to SAM members via email, on Twitter and via the SAM website. New units were able to register through the SAM website, with all the documents needed to participate available on the website. A new database provider was used for SAMBA22, requiring all units to confirm their participation prior to data collection.

Who and When?

Recruitment to SAMBA22 was open to all hospitals in the UK receiving acutely unwell medical patients. Non-acute and community hospitals were excluded. AMUs in participating hospitals were asked to register with their local audit office and Caldicott Guardian.

The audit included all new patient referrals to acute medicine on Thursday 23rd June 2022 between 00:00 to 23:59 hours and all patients seen in SDEC/AEC, including returning patients. The data for patients returning to SDEC/AEC is not used in all the analyses below and the reader is guided through the data included in each section.

Data Collection

For SAMBA22, online software was used for data entry. Study data were collected and managed using REDCap electronic data capture tools hosted at the University of Birmingham.^(17, 18) REDCap (Research Electronic Data Capture) is a secure, web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources

No identifiable patient data is entered through the online portal. Individual sites create a Masterlist linking patient study codes to a local identifier. This is stored securely at each site, separate to any anonymised raw data.

SAMBA22 included both unit data and patient level data. Unit level data included information regarding size of AMU and hospital, and provision of SDEC/AEC services.

Acuity of illness was assessed using the National Early Warning Score 2 (NEWS2).⁽¹⁹⁾

Within the results, units with missing data on an individual item are excluded from analysis and therefore the denominator may vary for each item.

Disseminating SAMBA data

Results are available to each participating unit to show their performance against the CQIs. The results available to each unit show their unit outcomes compared to anonymised results from other units, allowing them to benchmark their performance against the other units that took part. National results are collated into a National SAMBA Report, and have previously been published in peer reviewed journals^(15, 16, 20) and presented at SAM conferences.

Results

Unit participation

152 units submitted patient data for SAMBA22, from 149 hospitals (Figure 1). Three hospital sites submitted data from an Acute Medical Unit and a separate frailty service. One participating hospital site has a SDEC service, but no Acute Medical Unit or inpatient services on site.

Of these participating hospitals, 147 submitted unit data alongside patient data.

Patient data was submitted for 128 hospitals in England, 4 in Northern Ireland, 8 in Scotland and 7 in Wales.

Participated in SAMBA22

◆ Yes ◆ No

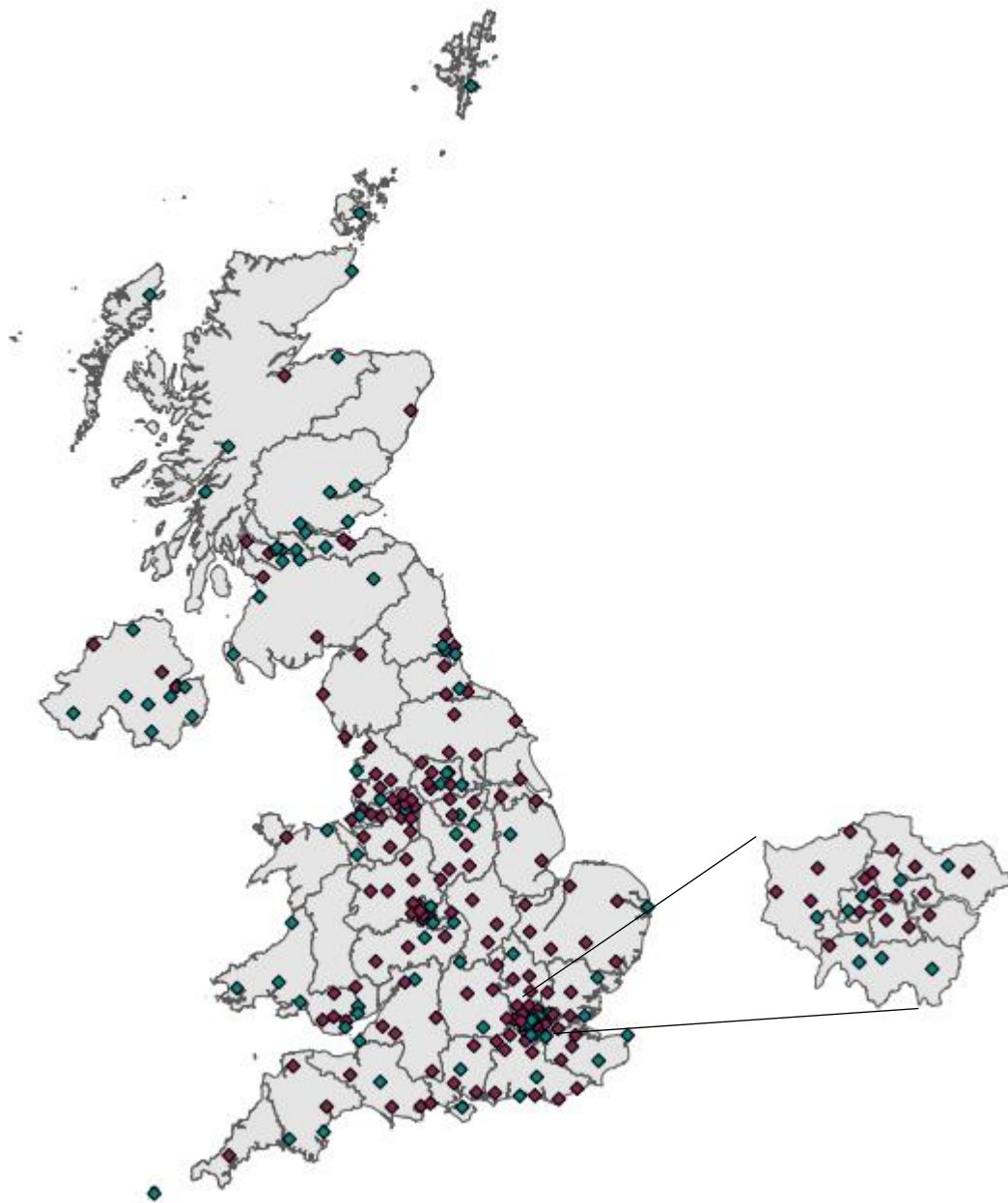


Figure 1: Participating units in SAMBA2022. All hospital sites in UK with a Type 1 Emergency Department shown. London shown as inset map.

The services

Participating hospitals with inpatient services ranged in size from 120 inpatient beds in total to 1700. The median number of inpatient beds at participating hospitals was 518 (interquartile range (IQR) 383-680).

The median number of AMU beds per unit was 40, but ranged from 17 to 111 (IQR 29-52)(Figure 2).

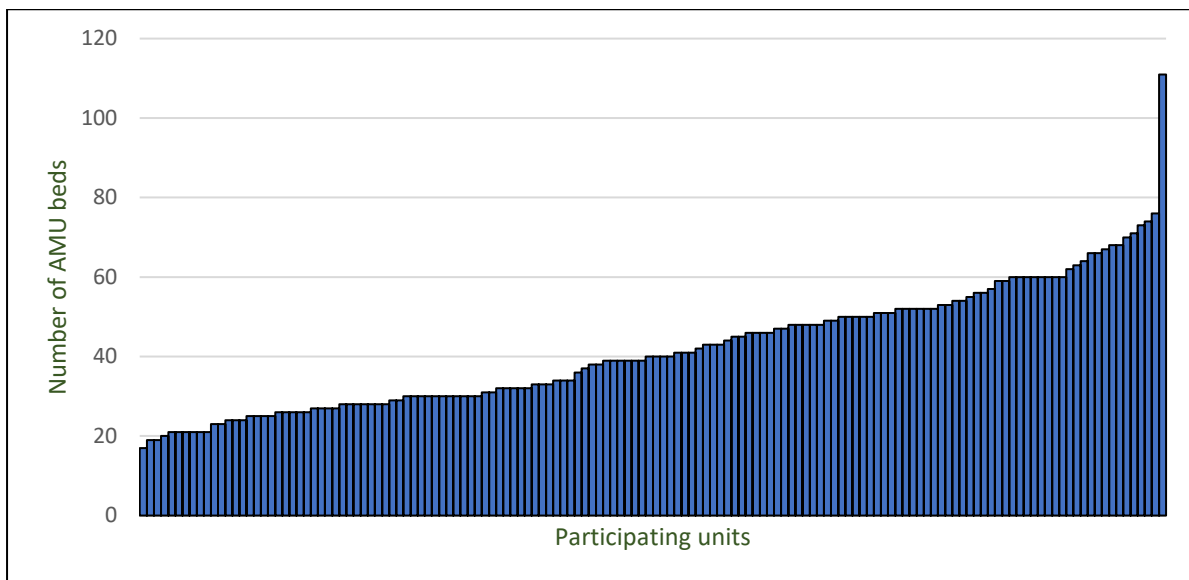


Figure 2: Number of AMU beds as each participating unit

98% of units reported using standard NEWS2 trigger thresholds.

25 units had level 2 beds/enhanced care beds on AMU (18%).

Paramedics could refer to acute medicine services in 81 units (57%), in and out of hours in 27 units, and in hours only in 53 units.

Same day emergency care

98% of units provide Same Day Emergency Care/ambulatory care. A separate unit for SDEC/AEC was utilised by 125 units (89% of those with SDEC/AEC services).

Set criteria to identify those suitable for SDEC/ambulatory care are used by 86 units (61% of those delivering SDEC/SEC services).

A private area for confidential discussions is available in 91% of services. 81% of services contact non-attenders. 63% of units provide patients with SDEC specific patient information. Patient feedback surveys for SDEC patients are conducted in 82% of services.

Most units (83, 59%) started accepting patients between 08:00-08:59; 1.4% started between 07:00-07:59 and 32% started between 09:00-10:00. Finish times for accepting new patients were more variable (Table 1). Eight SDEC units (6%) were open 24 hours a day.

Table 1: Finish times for accepting new patients to SDEC services

Finish time for accepting new SDEC patients	
16:00-16:59	2.1%
17:00-17:59	10%
18:00-18:59	3.6%
19:00-19:59	5%
20:00-20:59	37%
21:00-21:59	9.3%
22:00-22:59	17%
23:00-23:59	4.3%
00:00-00:59	2.9%
01:00-02:00	2.9%

Patient level data

The patients

8344 patients were included in SAMBA22.

The number of patients seen per unit ranged from 5 to 130 (median 53 patients, IQR 39-68)(Figure 3).

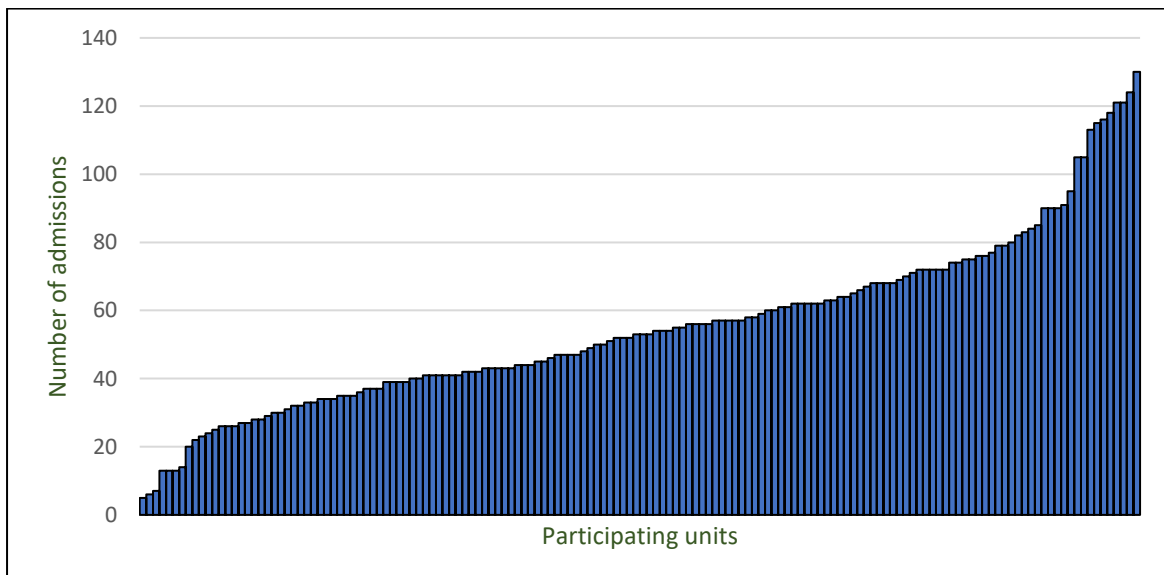


Figure 3: Number of admissions per unit participating in SAMBA22. Units ordered on x-axis by number of patients seen during the 24 hours of data collection. Planned and unplanned admissions included. Range – 4-161.

Demographics

- 52% of patients were female (Winter SAMBA 55%, SAMBA21 54%)
- 27% were aged 80 years and above (WinterSAMBA 29.6%, SAMBA21 26%; Figure 4)

Scheduled returns

- 12.6% (1051 patients) of patients were scheduled returns (WinterSAMBA 7.5%, SAMBA21 9.2%)
- The percentage of patients seen on the day of data collection who were scheduled returns varied between units (Figure 5)

Location before admission

- 5.0% were admitted from a care home (nursing or residential) (WinterSAMBA 6.4%, SAMBA21 5.4%)
- 0.4% of patients were homeless (WinterSAMBA & SAMBA21 0.4%)
- 1.1% were transferred from another hospital (WinterSAMBA & SAMBA21 1.1%)

Readmission

- 24% had been discharged from hospital in the last 30 days, although this was not necessarily from Acute Medicine or another medical specialty (WinterSAMBA and SAMBA21 20%)
 - 20% of unplanned admissions had been discharged from hospital in the last 30 days (WinterSAMBA & SAMBA21 18%)

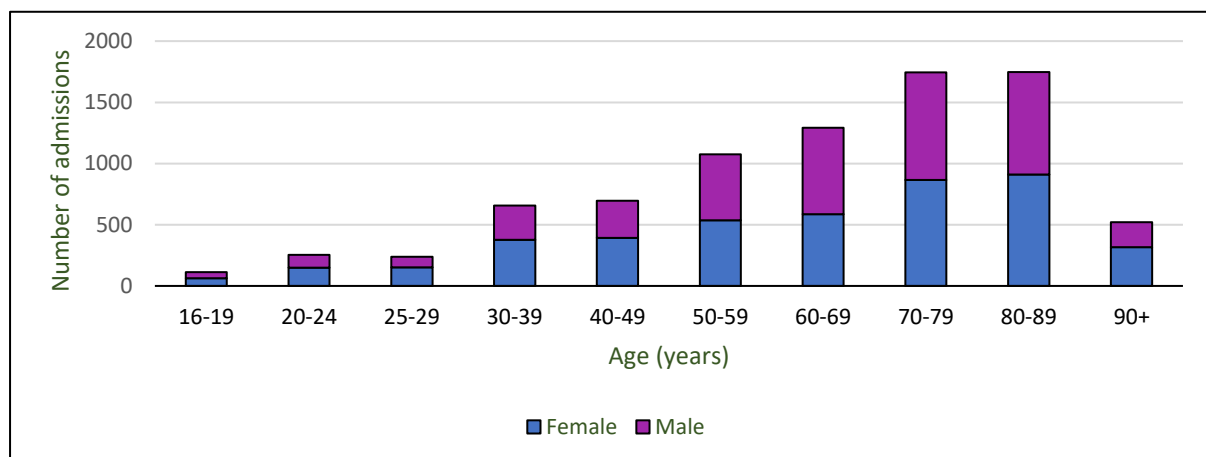


Figure 4: Age distribution of patients included in SAMBA22. Note: age categories vary in size between 16-29 years.

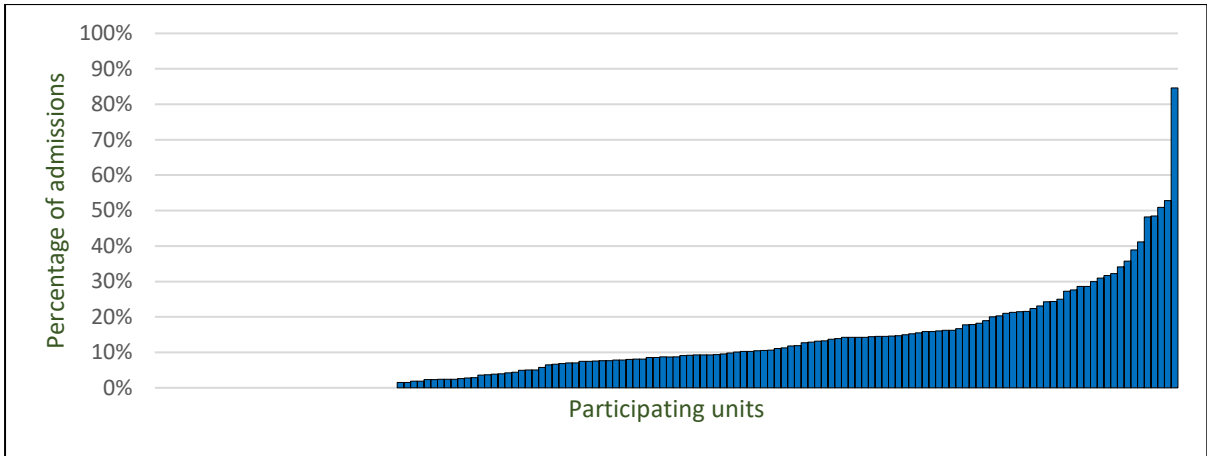


Figure 5: Percentage of admissions that were planned re-attendances. Participating units ordered by percentage that were planned reattendances. Thirty-six units reported no planned reattendances on the day of the audit.

Early warning scores

71% of unplanned admissions had a NEWS2 of 0-2 on arrival (Figure 6). 96% of scheduled returns had a NEWS2 of 0-2 on arrival.

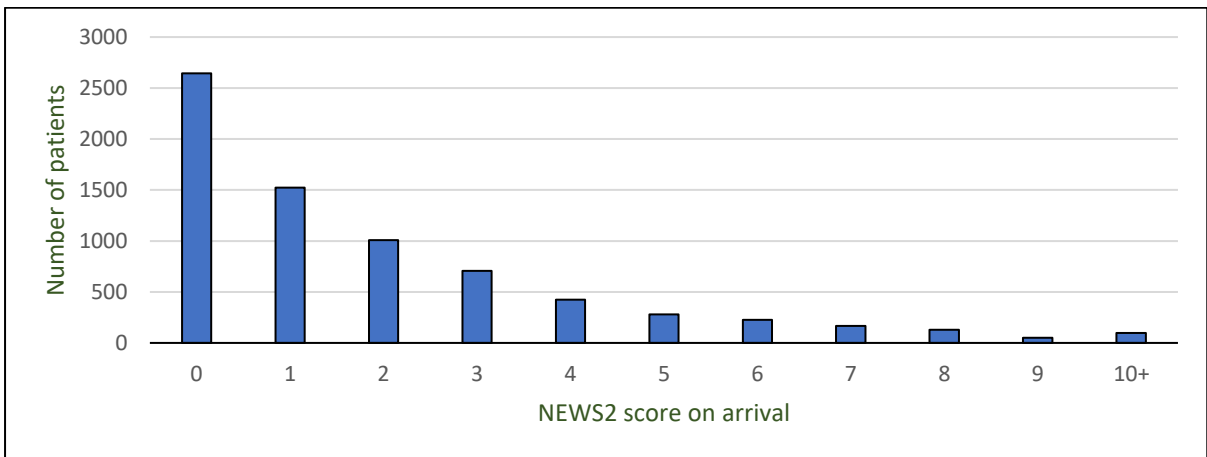


Figure 6: NEWS2 on arrival to hospital.

Patient pathway

Assessing unplanned admissions (7284 patients), the majority of referrals to acute medicine were patients who attended via the emergency department (68%).

Table 2: Who referred patients to acute medicine?

	Source of referral			
	Emergency department	Primary care	Paramedic	Own hospital
SAMBA22	67.6%	23.4%	3.0%	3.1%
SAMBA21	70.0%	21.8%	3.0%	4.0%
Winter SAMBA	66.1%	25.9%	2.2%	4.5%
SAMBA19	60.1%	28.1%	1.8%	8.8%

Note: Percentages do not equal 100% due to referrals from other sources.

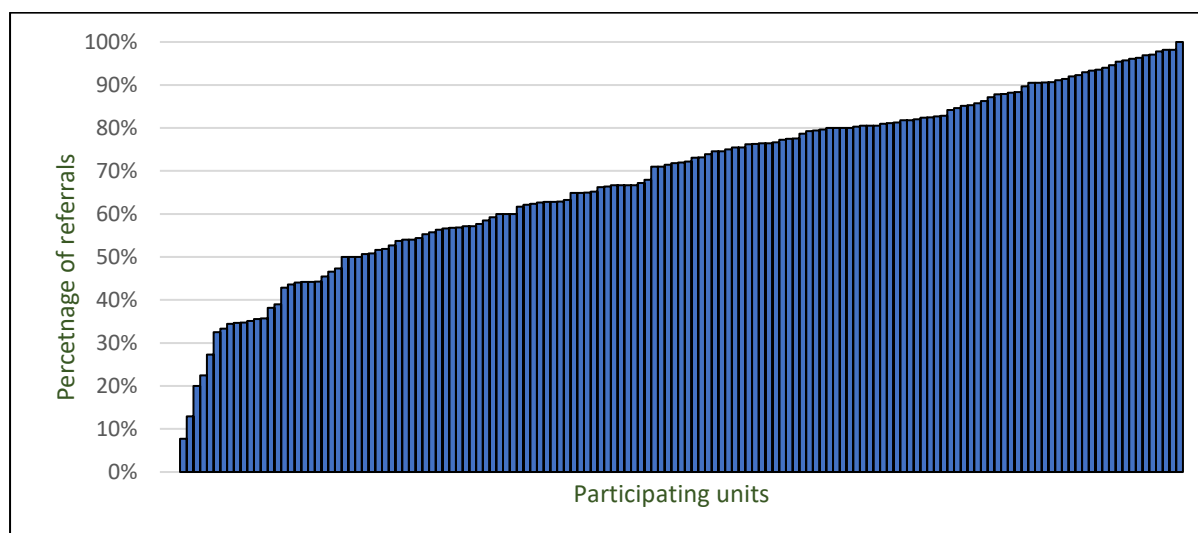


Figure 7: Percentage of patients (unplanned admissions) included in the audit who were referred from the Emergency Department. Units ordered along x-axis by percentage of patients referred from ED. Note: three units did not see any patients that had presented to an ED/were not in a site with an ED.

Time of day

Most patients (unplanned admissions) arrived during the daytime:

- 15% of patients arrived between midnight and 8am
- 73% arrived between 8am and 8pm
 - 23% between 8am and midday, 28% between midday and 4pm, 22% between 4pm and 8pm
- 12% arrived between 8pm and midnight

Location of first clinician assessment

The first clinical assessment is performed by any competent clinical decision maker – this may be the medical team, but may be a member of the emergency medicine team or a specialty clinician.

62% of unplanned admissions (4496 patients) had their first clinical assessment performed by a member of the emergency medicine team.

The location of first clinician assessment is shown in Figure 8. 52% of patients had their first assessment by the medical team in the Emergency Department (WinterSAMBA & SAMBA21 41%).

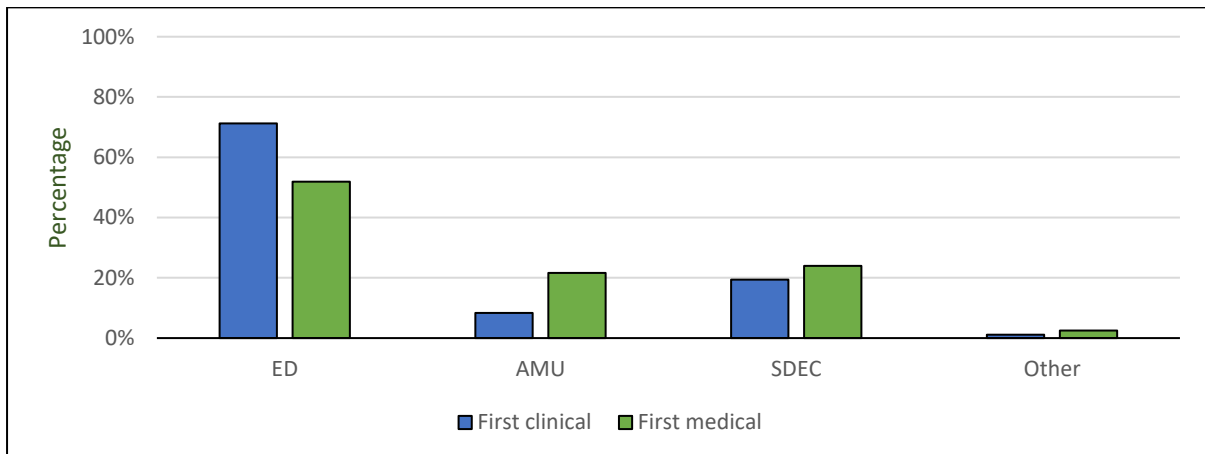


Figure 8: Assessment location for all admissions. Location of first clinical assessment and first assessment by the medical team. Patients who were scheduled to return included. ED: Emergency Department; AMU: Acute Medical Unit; SDEC: Same Day Emergency Care.

Location of first medical assessment

The location of the first assessment by a member of the medical team is also shown in Figure 8.

Patient journey

Patient journey for unplanned admissions is summarised in Figure 9. This is a simplified diagram – pathways taken by patients through their hospital admission are complex.

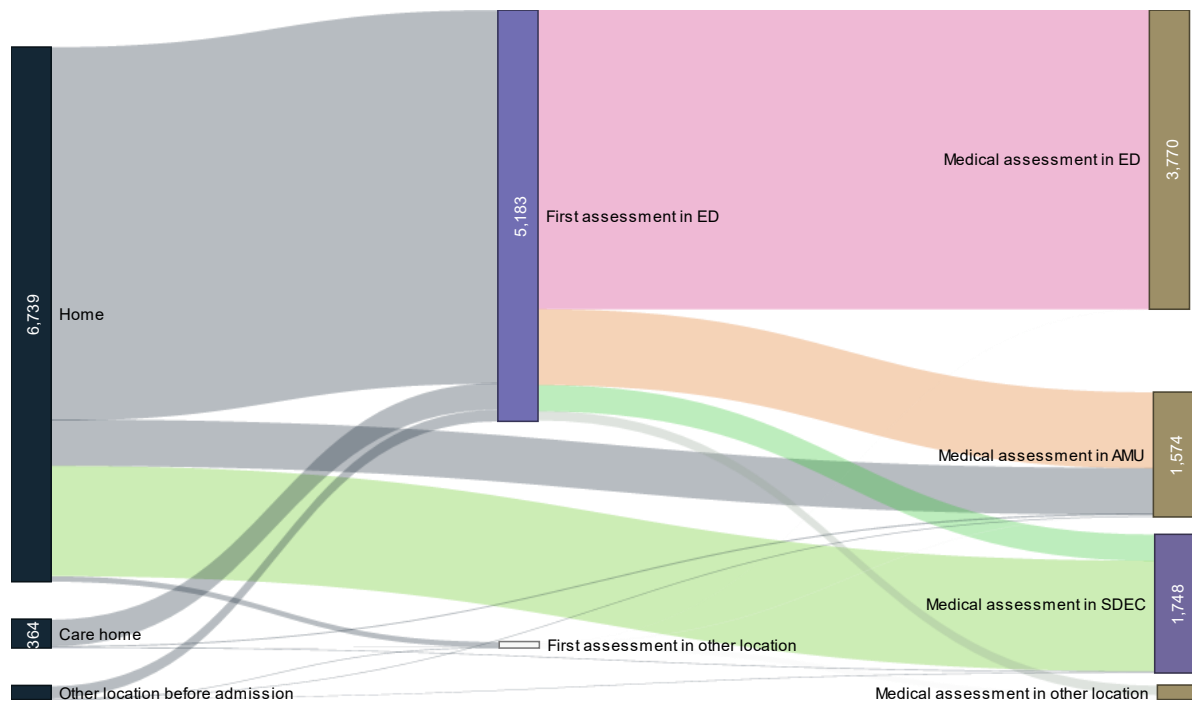


Figure 9: Sankey diagram of patients' initial journey through acute medical admission. ED: Emergency Department, AMU: Acute Medical Unit; SDEC: Same Day Emergency Care.

Same Day Emergency Care/Ambulatory emergency care

The percentage of patients (unplanned admissions) seen in SDEC varied between units. Comparison between units is shown in Figure 10. Twenty-three units didn't see any unplanned admissions in SDEC/AEC. A third or more of admissions were seen by the medical team in SDEC/AEC in 25.4% of units.

The age range of patients who had their assessment by the medical team in SDEC/AEC is shown in Figure 11.

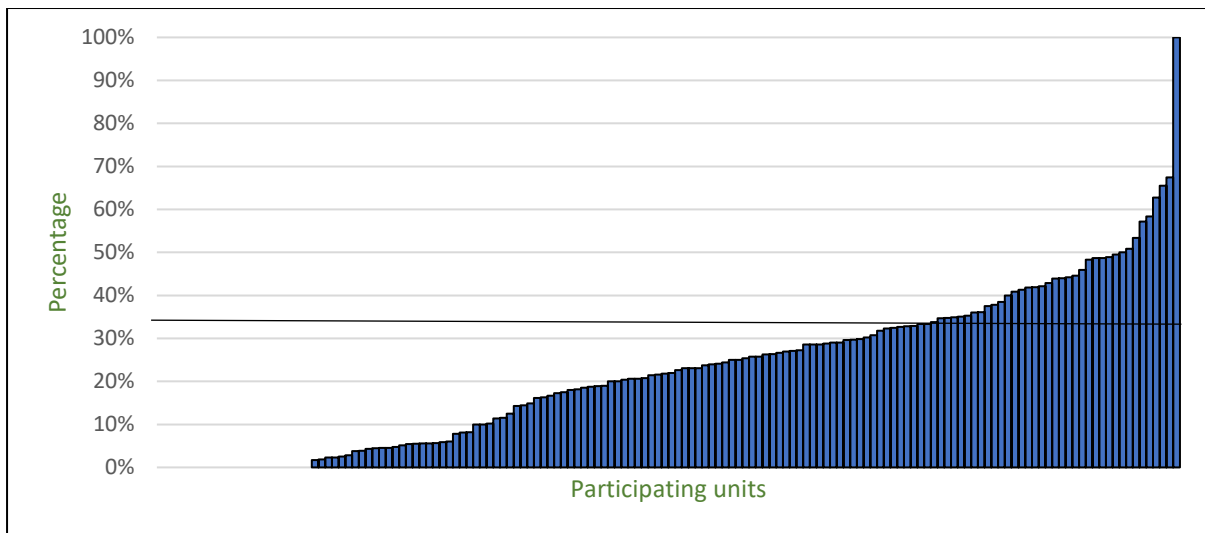


Figure 10: Percentage of patients who received their first medical assessment in Same Day Emergency Care (SDEC). Units ranked along x-axis by percentage seen in SDEC. Target line at 33.3% based on recommendations for provision of Same Day Emergency Care (SDEC) from NHS Long Term Plan.⁽²¹⁾

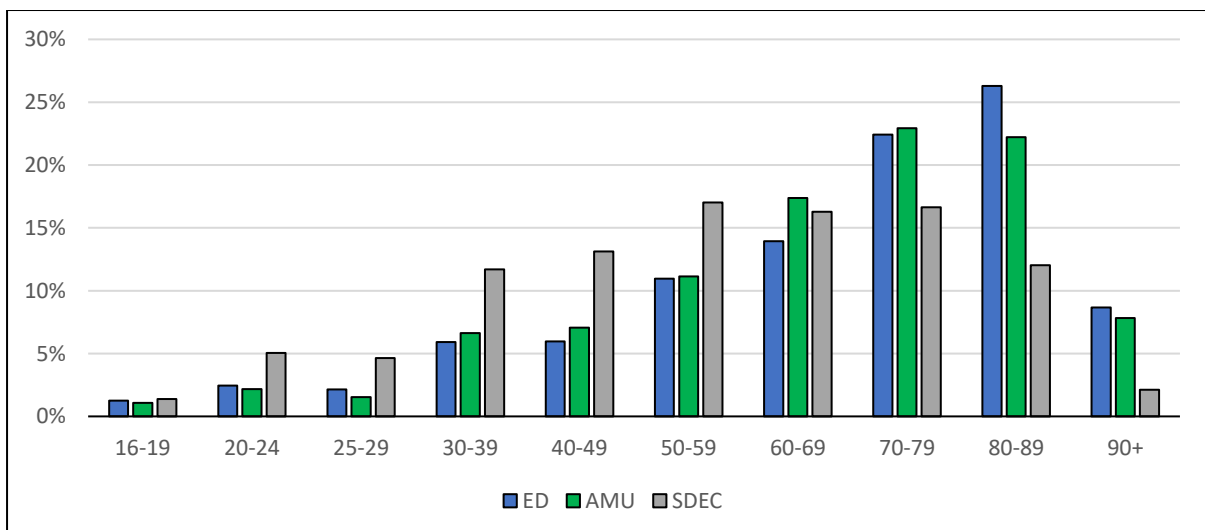


Figure 11: Age distribution of the patients having their first assessment by the medical team within each area: ED, AMU & SDEC. Unplanned admissions only

Clinical Quality Indicator Outcomes SAMBA22

Clinical Quality Indicator 1: Early warning score within 30 minutes

68.8% of unplanned admissions had an early warning score recorded within 30 minutes of arrival to hospital (95% CI 67.7-69.9%).

Table 3: Percentage of unplanned admissions meeting target of Early Warning Score measurement within 30 minutes of arrival to hospital, by initial assessment location

CQI 1	Location of initial clinical assessment			
	ED	AMU	SDEC/AEC	Other locations
Percentage achieving target				
SAMBA22	67.9%	67.2%	73.3%	63.4%
SAMBA2021	78.4%	75.3%	82.3%	67.9%
Winter SAMBA	75.7%	70.3%	76.9%	61.4%
SAMBA19	81.6%	80.0%	81.2%	78.3%

Individual unit performance is shown in Figure 12.

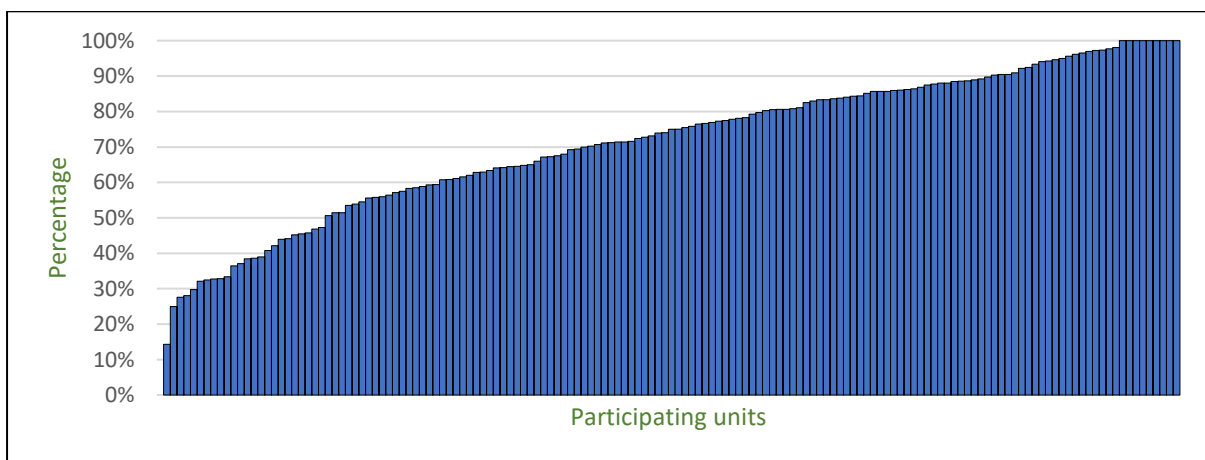


Figure 22: Percentage of unplanned admissions where target for Early Warning Score measurement within 30 minutes of arrival achieved, for participating units. Units ranked along x-axis.

Clinical Quality Indicator 2: Assessment by clinical decision maker within 4 hours

78.7% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital (95% CI 78.7-79.7%). This target was met by 91.0% in SAMBA19, 84.4% in WinterSAMBA, and 87.4% in SAMBA21.

Comparison of individual unit performance is shown in Figure 13.

Table 4: Percentage of unplanned admissions meeting target of assessment by clinical decision maker within 4 hours of arrival, by initial assessment location

CQI 2 Percentage achieving target	Location of initial clinical assessment			
	ED	AMU	SDEC/AEC	Other locations
SAMBA22	76.1%	77.9%	88.6%	80.3%
SAMBA2021	86.4%	83.5%	93.9%	82.4%
Winter SAMBA	83.7%	78.6%	91.8%	76.2%
SAMBA19	86.7%	81.9%	94.7%	n/a

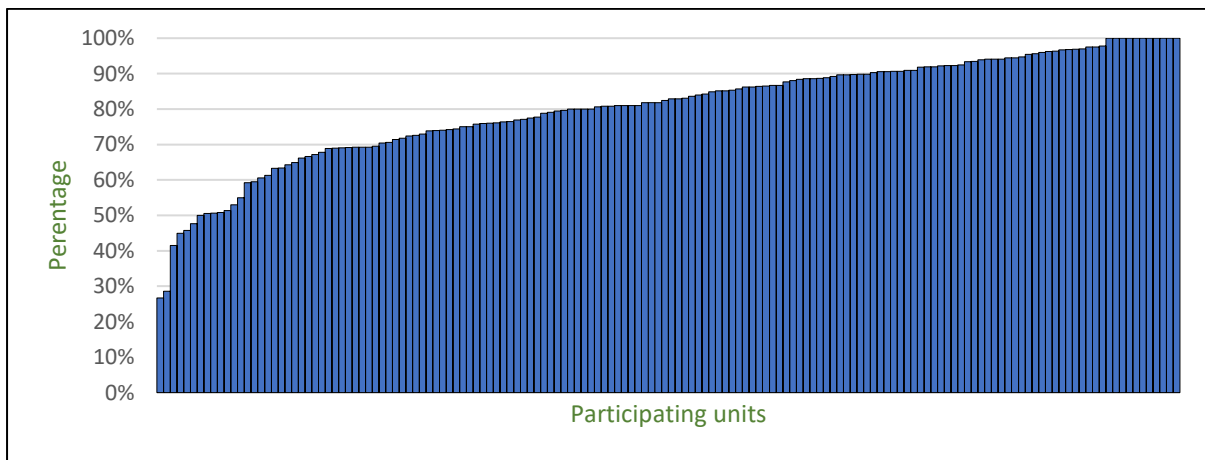


Figure 33: Percentage of unplanned admissions where target for clinical decision maker review within 4 hours of arrival achieved, for participating units. Units ranked along x-axis

Clinical Quality Indicator 3: Assessment by consultant within target time

Overall, 49.8% of unplanned admissions who required a medical consultant review were seen within the target time (95% CI 48.5-51.0%). This target was met by 69.6% in SAMBA19, 61.9% in WinterSAMBA, and 67.8% in SAMBA21. Comparison of individual unit performance is shown in Figure 15. No unit achieved this target for all of their patients who required consultant review.

15.3% of unplanned admissions did not require a consultant review (WinterSAMBA and SAMBA21 12.3%). A breakdown is shown in Table 5.

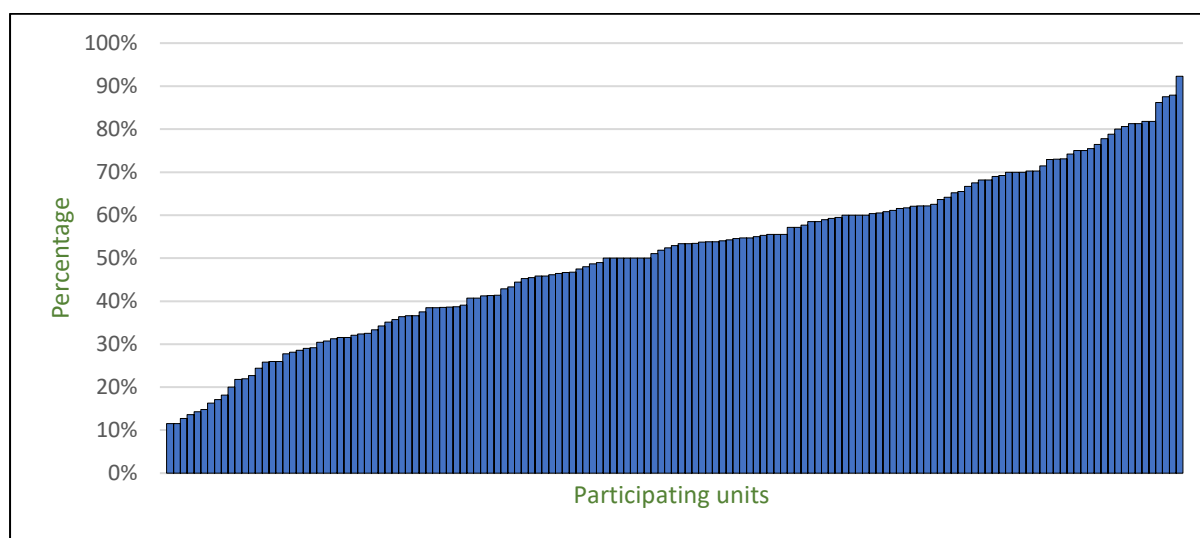


Figure 44: Per unit, percentage of patients where consultant review was achieved in the target time. Target time 6 hours for arrivals from 08:00-20:00; 14 hours for arrivals from 20:00-08:00. Units ranked along x-axis – note that units will not be in same order in the three graphs.

Table 5: Percentage of unplanned admissions achieving consultant review within the target time, by location of initial clinical assessment.

CQI 3	Location of initial clinical assessment			
	ED	AMU	SDEC/AEC	Other locations
<i>Percentage achieving target</i>				
SAMBA22	41.9%	60.2%	87.8%	68.2%
SAMBA2021	62.9%	76.4%	88.5%	73.2%
Winter SAMBA	57.0%	68.0%	82.1%	65.3%
SAMBA19	62.1%	74.3%	88.0%	n/a

Table 6: Patients who were seen by the medical team where consultant review within time target was not needed.

Reason consultant review was not needed	Number of patients
Discharged by another team member	802
<i>Registrar</i>	438
<i>Other junior doctor</i>	185
<i>ANP/ACP</i>	123
<i>Specialist nurse</i>	18
<i>GP</i>	10
<i>PA</i>	7
Other/unknown	23
Solely required investigations/intervention	73
Self-discharged before consultant review	64
Transferred to another specialty after assessment by the medical team	60
Transferred to ICU before consultant review	14
Patient died before consultant review	2
Total	1015

ANP: Advanced Nurse Practitioner; ACP: Advanced Clinical Practitioner; GP: General Practitioner; PA: Physicians Associate; ICU: Intensive Care Unit

Time of day & Initial assessment location

Completion of clinical quality indicators depending on time of day are shown in Table 7.

Table 7: Percentage of unplanned admissions where CQI achieved depending on arrival time and initial assessment location.

	Location of initial assessment			
	ED	AMU	SDEC/AEC	Other
CQI 1				
00:00-08:00	71.1%	71.4%	71.1%	80.0%
08:00-20:00	67.7%	67.6%	73.2%	61.9%
20:00-00:00	64.6%	62.8%	86.7%	55.6%
CQI 2				
00:00-08:00	66.8%	81.0%	44.4%	60.0%
08:00-20:00	80.3%	80.3%	90.0%	87.1%
20:00-00:00	69.1%	62.8%	93.3%	55.6%
CQI3				
00:00-08:00	71.3%	93.9%	100%	88.9%
08:00-20:00	28.0%	52.6%	87.2%	62.0%
20:00-00:00	67.1%	85.9%	100%	85.7%

Note: Only 60 patients were seen in SDEC/AEC who arrived outside of daytime hours.

Completion of all indicators

All three CQIs were achieved within the target times for 32.9% of patients who required a consultant review (44.1% in WinterSAMBA, 50.6% in SAMBA21). Comparison of individual unit performance is shown in Figure 15.

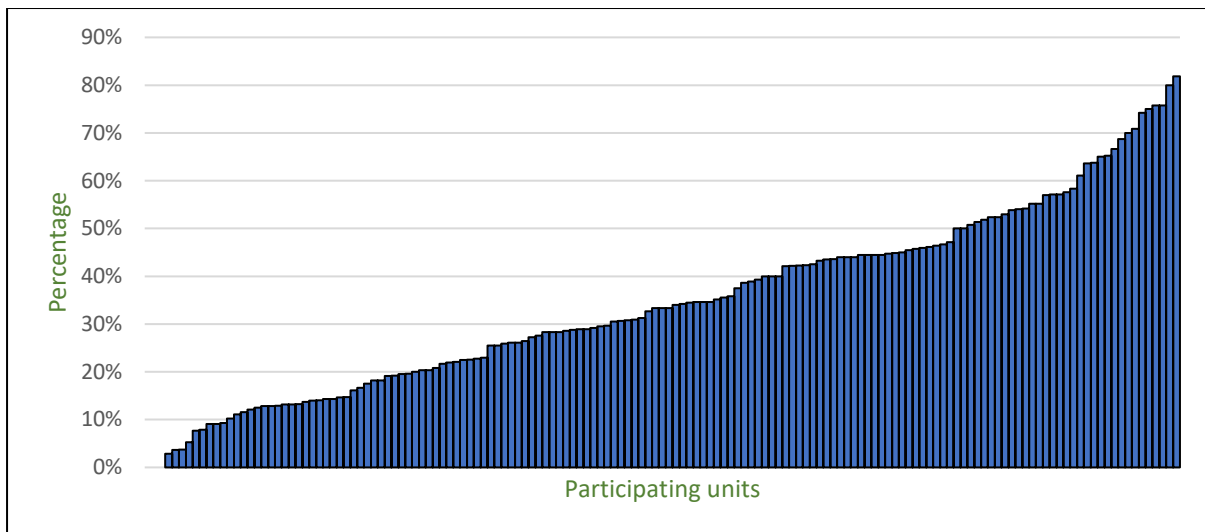


Figure 15: Percentage of patients where all three CQIs were achieved, by unit. Units ranked along x-axis.

Outcomes at fourteen days

Figure 16 shows patient outcomes at 14 days for all unplanned admissions.

28.9% of unplanned admissions were discharged on the day of arrival (31.5% in SAMBA21).

113 unplanned admissions were admitted to the ICU at any point in the first seven days of their admission (1.4% of patients) (1.5% in WinterSAMBA, 1.4% in SAMBA21).

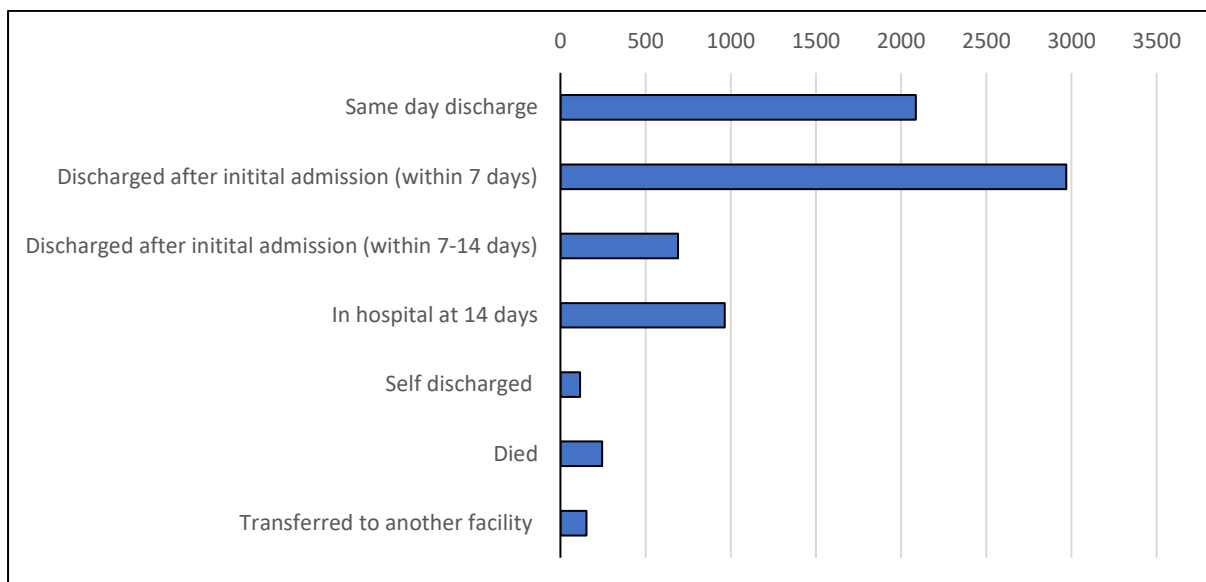


Figure16: Patient outcomes at 14 days

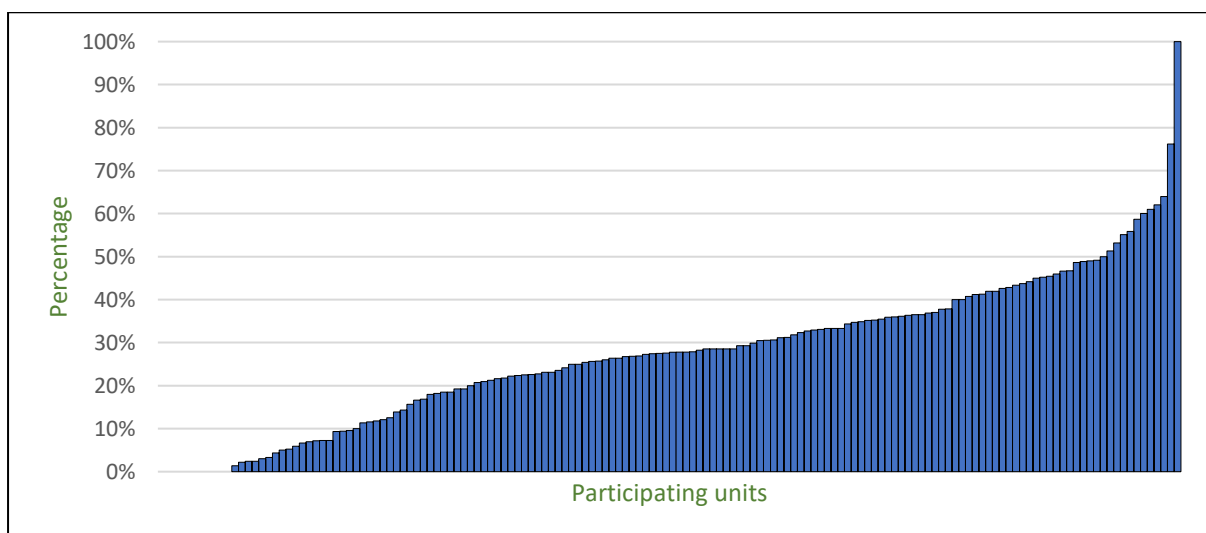


Figure 57: Percentage of patients discharged without overnight admission. Units ordered along x axis.

Summary & Discussion

What has SAMBA22 shown?

SAMBA22 provides a comparison against the key clinical quality indicators for acute medicine, focussing on three areas of the patient journey through acute care services (time to measurement of an early warning score, assessment by a clinician, and review by a consultant physician). Performance in all three indicators has fallen for patients admitted as an unplanned attendance in comparison to SAMBA21. This may reflect the increasing pressure on acute services and on emergency services.

Close work is needed between acute and emergency medicine. Referrals from emergency medicine continue to make up the majority of the workload at many centres, with more than half of patients overall having their assessment by the medical team while still physically within the Emergency Department. Careful consideration must be given to how acute and emergency medicine services can work together to improve clinical care and patient pathways.

Poorer performance against the clinical quality indicators may reflect increased pressures on front door services, and the high pressure that emergency departments are facing nationally has been widely reported.^(22, 23) However, this decrease in performance is not limited to patients arriving to the Emergency Department; a fall in performance was also seen in patients who were assessed directly in the AMU or within SDEC services. This underlines the importance of understanding how patient pathways through acute services interconnect and interact in the delivery of patient care.

Limitations

There was considerable variation in performance between units as well as variation in how each centre delivers acute services. Exploring this variation offers avenues for improvement. SAMBA provides a snapshot of performance over 24 hours, but there is likely to be variation in performance across time. Some units may vary considerably in achievement of the quality indicators on a day-to-day or week-to-week basis. Further work is needed to understand how this snapshot reflects performance over longer periods of time.

Although SAMBA can identify areas for improvement, and aims to provide an overview of the performance of acute medical units, SAMBA is not designed to identify which components of acute medical care provide the best outcomes, and does not contain the detail needed to fully explore and explain the variation described here.

Next steps

SAMBA22 has demonstrated a fall in performance against the clinical quality indicators. This likely reflects the ongoing increased pressure on acute care services, and rising demand in both primary care, via general practice, and secondary care, via emergency medicine. We feel that these results are likely consistent with the perception of clinicians and non-clinicians working within acute services, and can help support individual centres in demonstrating a need for improvement.

The processes of SAMBA22 have changed from previous years, with adaptations to some of the data collected, and a move to an alternative database and change in local reports. We plan to continue to improve SAMBA, to try to ensure it will continue to provide useful information that can be used to support changes to improve clinical care for those centres that take part.

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The Society for Acute Medicine

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Appendix 1: Participating units

We would once again like to emphasise that SAMBA cannot take place without the involvement of the enthusiastic volunteers at each hospital site, involved in registering the audit, collecting data, and uploading information to the database.

If we have missed any participating units from this report, we would be happy to amend the online version. If we can help, please contact us at samba@acutemedicine.org.uk

England

Addenbrooke's Hospital	Cambridge University Hospitals
Aintree University Hospital	Liverpool University Hospitals NHS Foundation Trust
Airedale General Hospital	Airedale NHS Foundation Trust
Arrowe Park Hospital	Wirral University Teaching Hospital NHS Foundation Trust
Barnet Hospital	Royal Free London NHS Foundation Trust
Barnsley Hospital	Barnsley Hospital NHS Foundation Trust
Basildon University Hospital	Mid and South Essex NHS Foundation Trust
Basingstoke and North Hampshire Hospital	Hampshire Hospitals NHS Foundation Trust
Birmingham City Hospital	Sandwell and West Birmingham NHS Trust
Birmingham Heartlands Hospital	University Hospitals Birmingham NHS Foundation Trust
Bradford Royal Infirmary	Bradford Teaching Hospitals NHS Foundation Trust
Bristol Royal Infirmary	University Hospitals Bristol NHS Foundation Trust
Broomfield Hospital	Mid and South Essex NHS Foundation Trust
Calderdale Royal Hospital	Calderdale and Huddersfield NHS Foundation Trust
Chelsea and Westminster Hospital	Chelsea and Westminster Hospital NHS Foundation Trust
Chorley and South Ribble Hospital	Lancashire Teaching Hospitals NHS Foundation Trust
Conquest Hospital	East Sussex Healthcare NHS Trust
Countess of Chester Hospital	Countess of Chester Hospital NHS Foundation Trust
County Hospital	University Hospitals of North Midlands NHS Trust
Cumberland Infirmary	North Cumbria Integrated Care NHS Foundation Trust
Darent Valley Hospital	Dartford and Gravesham NHS Trust
Darlington Memorial Hospital	County Durham and Darlington NHS Foundation Trust
Diana, Princess of Wales Hospital	Northern Lincolnshire and Goole NHS Foundation Trust
Doncaster Royal Infirmary	Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust
Dorset County Hospital	Dorset County Hospital NHS Foundation Trust
Ealing Hospital	London North West University Healthcare NHS Trust
East Surrey Hospital	Surrey and Sussex Healthcare NHS Trust
Eastbourne District General Hospital	East Sussex Healthcare NHS Trust
Epsom Hospital	Epsom and St Helier University Hospitals NHS Trust
Fairfield General Hospital	Pennine Acute Hospitals NHS Trust
Friarage Hospital	South Tees Hospitals NHS Foundation Trust

Frimley Park Hospital	Frimley Health NHS Foundation Trust
Furness General Hospital	University Hospitals of Morecombe Bay NHS Foundation Trust
George Eliot Hospital	George Eliot Hospital NHS Trust
Gloucestershire Royal Hospital	Gloucestershire Hospitals NHS Foundation Trust
Great Western Hospital	Great Western Hospitals NHS Foundation Trust
Harrogate District Hospital	Harrogate and District NHS Foundation Trust
Hereford County Hospital	Wye Valley NHS Trust
Hillingdon Hospital	Hillingdon Hospitals NHS Foundation Trust
Hinchingbrooke Hospital	North West Anglia NHS Foundation Trust
Huddersfield Royal Infirmary	Calderdale and Huddersfield NHS Foundation Trust
Hull Royal Infirmary	Hull University Teaching Hospitals NHS Trust
Ipswich Hospital	East Suffolk and North Essex NHS Foundation Trust
John Radcliffe Hospital	Oxford University Hospitals NHS Foundation Trust
Kettering General Hospital	Kettering General Hospital NHS Foundation Trust
King's College Hospital	King's College Hospital NHS Foundation Trust
King's Mill Hospital	Sherwood Forest Hospitals NHS Foundation Trust
Kingston Hospital	Kingston Hospital NHS Foundation Trust
Leicester Royal Infirmary	University Hospitals of Leicester NHS Trust
Leighton Hospital	Mid Cheshire Hospitals NHS Foundation Trust
Lister Hospital	East and North Hertfordshire NHS Trust
Luton & Dunstable University Hospital	Bedfordshire Hospitals NHS Foundation Trust
Macclesfield District General Hospital	East Cheshire NHS Trust
Maidstone Hospital	Maidstone and Tunbridge Wells NHS Trust
Medway Maritime Hospital	Medway NHS Foundation Trust
Milton Keynes University Hospital	Milton Keynes University Hospital NHS Foundation Trust
Musgrove Park Hospital	Somerset NHS Foundation Trust
New Cross Hospital	The Royal Wolverhampton NHS Trust
New Queen Elizabeth II Hospital	East and North Hertfordshire NHS Trust
Newham University Hospital	Barts Health NHS Trust
Norfolk & Norwich University Hospital	Norfolk & Norwich University Hospitals NHS Foundation Trust
North Devon District Hospital	Northern Devon Healthcare NHS Trust
North Manchester General Hospital	Manchester University Hospitals NHS Trust
North Middlesex University Hospital	North Middlesex University Hospital NHS Trust
Northampton General Hospital	Northampton General Hospital NHS Trust
Northern General Hospital	Sheffield Teaching Hospitals NHS Foundation Trust
Northumbria Specialist Emergency Care Hospital	Northumbria Healthcare NHS Foundation Trust
Northwick Park Hospital	London North West University Healthcare NHS Trust
Peterborough City Hospital	North West Anglia NHS Foundation Trust

Pilgrim Hospital Boston	United Lincolnshire Hospitals NHS Trust
Pinderfields General Hospital	Mid Yorkshire Hospitals NHS Trust
Pinderfields General Hospital - frailty	Mid Yorkshire Hospitals NHS Trust
Poole Hospital – AMU	University Hospitals Dorset NHS Foundation Trust
Poole Hospital - RACE Unit	University Hospitals Dorset NHS Foundation Trust
Princess Alexandra Hospital	The Princess Alexandra Hospital NHS Trust
Queen Alexandra Hospital	Portsmouth Hospitals University NHS Trust
Queen Elizabeth Hospital	Lewisham and Greenwich NHS Trust
Queen Elizabeth Hospital	The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust
Queen Elizabeth Hospital	University Hospitals Birmingham NHS Foundation Trust
Queen's Hospital	Barking, Havering and Redbridge University Hospitals NHS Trust
Queen's Medical Centre	Nottingham University Hospitals NHS Trust
Queens Hospital Burton	University Hospitals of Derby and Burton NHS Foundation Trust
Royal Blackburn Teaching Hospital	East Lancashire Hospitals NHS Trust
Royal Bolton Hospital	Bolton NHS Foundation Trust
Royal Bournemouth Hospital - AMU	University Hospitals Dorset NHS Foundation Trust
Royal Bournemouth Hospital - OPAU	University Hospitals Dorset NHS Foundation Trust
Royal Cornwall Hospital	Royal Cornwall Hospitals NHS Trust
Royal Derby Hospital	University Hospitals of Derby and Burton NHS Foundation Trust
Royal Devon and Exeter Hospital	Royal Devon and Exeter NHS Foundation Trust
Royal Free Hospital	Royal Free London NHS Foundation Trust
Royal Lancaster Infirmary	University Hospitals of Morecombe Bay NHS Foundation Trust
Royal Oldham Hospital	Northern Care Alliance NHS Group
Royal Preston Hospital	Lancashire Teaching Hospitals NHS Foundation Trust
Royal Shrewsbury Hospital	The Shrewsbury and Telford Hospital NHS Trust
Royal Stoke University Hospital	University Hospitals of North Midlands NHS Trust
Royal Surrey County Hospital	Royal Surrey NHS Foundation Trust
Royal Sussex County Hospital	University Hospitals Sussex
Royal United Hospital Bath	Royal United Hospitals Bath NHS Foundation Trust
Russells Hall Hospital	The Dudley Group NHS Foundation Trust
Salford Royal Hospital	Salford Royal NHS Foundation Trust
Salisbury District Hospital	Salisbury NHS Foundation Trust
Sandwell General Hospital	Sandwell and West Birmingham NHS Trust
Scarborough General Hospital	York and Scarborough Teaching Hospitals NHS Foundation Trust
Scunthorpe General Hospital	Northern Lincolnshire and Goole NHS Foundation Trust
Southampton General Hospital	University Hospital Southampton NHS Foundation Trust
Southmead Hospital	North Bristol NHS Trust
Southport District General	Southport and Ormskirk Hospital NHS Trust

St James's University Hospital	Leeds Teaching Hospitals NHS Trust
St Peter's Hospital	Ashford and St Peter's Hospitals NHS Foundation Trust
St Richard's Hospital	University Hospitals Sussex NHS Foundation Trust
St Thomas' Hospital	Guys and St Thomas' NHS Foundation Trust
Stepping Hill Hospital	Stockport NHS Foundation Trust
Stoke Mandeville Hospital	Buckinghamshire Healthcare NHS Trust
Tameside and Glossop Integrated NHS Foundation Trust	
The James Cook University Hospital	South Tees Hospitals NHS Foundation Trust
The Princess Royal Hospital	The Shrewsbury and Telford Hospital NHS Trust
The Royal London Hospital	Barts Health NHS Trust
The Whittington Hospital	Whittington Health NHS Trust
Tunbridge Wells Hospital	Maidstone and Tunbridge Wells NHS Trust
University College Hospital	University College London Hospitals NHS Foundation Trust
University Hospital Lewisham	Lewisham and Greenwich NHS Trust
University Hospital of North Durham	County Durham & Darlington NHS Foundation Trust
Walsall Manor Hospital	Walsall Healthcare NHS Trust
Warrington Hospital	Warrington and Halton Hospital NHS Trust
Warwick Hospital	South Warwickshire NHS Foundation Trust
Watford General Hospital	West Hertfordshire Hospitals NHS Trust
West Cumberland Hospital	North Cumbria Integrated Care NHS Foundation Trust
West Suffolk Hospital	West Suffolk NHS Foundation Trust
Wexham Park Hospital	Frimley Health NHS Foundation Trust
Whipps Cross University Hospital	Barts Health NHS Trust
Whiston Hospital	St Helens and Knowsley Teaching Hospitals NHS Trust
Worcestershire Royal Hospital	Worcestershire Acute Hospitals NHS Trust
Wythenshawe Hospital	Manchester University NHS Foundation Trust
York Hospital	York and Scarborough Teaching Hospitals NHS Foundation Trust
<i>Northern Ireland</i>	
Altnagelvin Area Hospital	Western Health and Social Care Trust
Antrim Area hospital	Northern Health and Social Care Trust
Royal Victoria Hospital, Belfast	Belfast Health and Social Care Trust
Ulster Hospital	South Eastern Health and Social Care Trust
<i>Scotland</i>	
Aberdeen Royal Infirmary	NHS Grampian
Dumfries and Galloway Royal Infirmary	NHS Dumfries and Galloway
Inverclyde Royal Hospital	NHS Greater Glasgow and Clyde
Raigmore Hospital	NHS Highland
Royal Alexandra Hospital Paisley	NHS Greater Glasgow and Clyde

Royal Infirmary of Edinburgh
University Hospital Crosshouse
Western General Hospital

Wales

Nevill Hall Hospital
Prince Charles Hospital
Princess of Wales Hospital
Royal Glamorgan Hospital
University Hospital of Wales
Ysbyty Gwynedd

NHS Lothian
NHS Ayrshire & Arran
NHS Lothian

Aneurin Bevan University Health Board
Cwm Taf Morgannwg University Health Board
Cwm Taf Morgannwg University Health Board
Cwm Taf Morgannwg University Health Board
Cardiff and Vale University Health Board
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