Society for Acute Medicine Benchmarking Audit

SAMBA 2021 Report

A National Audit of Acute Medical Care in the UK



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Welcome to SAMBA 2021

The Society for Acute Medicine Benchmarking Audit (SAMBA) 2021 provides a snapshot of the care provided for acutely unwell medical patients in the UK over a 24-hour period on Thursday 17th June 2021.

This was the first clinical data collection for SAMBA since the start of the Covid-19 pandemic. Since the last round of SAMBA in January 2020, acute medicine services have worked through periods of intense pressure, rapidly adapting to changes in service pressures, clinical need, and measures for patient safety that have often required widespread physical reconfiguration of services.

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 2021 took place on Thursday 17th June 2021, with follow-up data collected 7 days later. Acute medical teams from 158 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 8973 patients.

Key findings

Performance against clinical quality indicators

- 77.4% of patients had an early warning score recorded within 30 minutes of arrival to hospital
    - This target was met by 74.3% in WinterSAMBA20, and 79.8% in SAMBA19.
- 87.4% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital
    - This target was met by 84.4% in WinterSAMBA20, and 91.0% in SAMBA19.
- 67.8% of unplanned admissions who required a medical consultant review were seen within the target time
    - This target was met by 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 (49.2% seen within 6 hours)

Outcomes at 7 days

- 31.5% of patients (unplanned admissions) were discharged the same day
    - 4.3% of patients discharged the same day had an unscheduled attendance within the next 7 days
- 22.2% of patients had an inpatient hospital admission that lasted for more than 7 days

Overall message

Performance against the key clinical quality indicators was similar in SAMBA2021 to SAMBA19, suggesting that the performance of acute medicine services now is comparable to pre-pandemic performance.

Referrals to acute medicine via the emergency department have increased, with 70% of medical admissions referred this way. This may reflect ongoing increased pressures on emergency medicine services, and demonstrates the close work needed between acute and emergency medicine, and the importance of ensuring that pathways between emergency and acute medicine can deliver patient care as efficiently and safely as possible.

Setting the scene

Since Winter SAMBA 2020 took place in January 2020, acute medical units across the country have had to make widespread changes, with dramatic and rapid restructuring of acute NHS services occurring in both primary and secondary care to meet the unprecedented change in clinical need and demands due to the COVID-19 pandemic. As well as dealing with patients admitted to hospital due to Covid-19, acute and emergency medicine services have had to adapt to new infection control procedures requiring physical reconfiguration of services for patient safety[5, 6], changes in the spectrum of acute illness presenting to their services[7], alterations to workforce and configuration of wider services within the hospital, and in some cases the adoption of new services, such as respiratory support units, enhanced care beds, and virtual wards.[8-10]

SAMBA normally assesses the performance of units providing acute medical care in comparison to key clinical quality indicators over a 24-hour period, annually in summer. In 2020, a round of SAMBA was conducted in winter (January 2020), with the intention of running a second round in summer 2020. Due to the Covid-19 pandemic and the workload that SAMBA2020 would create for acute medical services that were recovering from, or still dealing with, the clinicals demands of Covid-19 admissions, it felt inappropriate to conduct a summer round of SAMBA in 2020. SAMBA2021 is therefore the first summer data collection since 2019, and aims to assess performance against the same indicators used in SAMBA19 and Winter SAMBA2020.

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),[11] 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 SAMBA 2021 are unchanged from those used in SAMBA19 & WinterSAMBA20, to facilitate comparison between the results.[12, 13]

Clinical quality indictors:

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. Different definitions have been used in previous rounds of SAMBA. The background to these changes are discussed within the SAMBA19 Report.[12]

In keeping with definitions used in the last 2 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.

Hospital Participation

Participation in SAMBA is voluntary for AMUs, but is now recognised by HQIP. The full list of hospitals who took part in SAMBA2021 is available in Appendix 1. Participating units have access to a bespoke report of their performance through the database used to deliver SAMBA.

Organisation & Methods

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

SAMBA2021 was promoted to SAM members via email, on Twitter and via the SAM website, as well as through the SAMBA database to those who registered for SAMBA19 or WinterSAMBA20. New units were able to register through the SAM website, with all the documents needed to participate available on the website.

Who and When?

Recruitment to SAMBA 2021 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 17th June 2021 between 00:00 to 23:59 hours and all patients seen in AEC, including returning patients. The data for patients returning to AEC is not used in all the analyses below and the reader is guided through the data included in each section.

Data Collection

For SAMBA2021, online software was used for data entry, initial data analysis and feedback of results to individual units. This software was used previously during SAMBA19 & WinterSAMBA20.

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.

SAMBA 2021 included both unit data and patient level data. Unit level data included information regarding size of AMU and hospital, and provision of AEC services.

Acuity of illness was assessed using the National Early Warning Score 2 (NEWS2).[14]

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[13, 15] and presented at SAM conferences.

Results

Unit participation

158 units submitted patient data for SAMBA2021, from 156 hospitals (Figure 1). Two hospital sites submitted data from an Acute Medical Unit and a separate frailty service. One of the participating hospitals is a dedicated specialist cancer centre.

Of these participating hospitals, 141 submitted unit data alongside patient data.

Patient data was submitted for 140 hospitals in England, 4 in Northern Ireland, 5 in Scotland and 7 in Wales.

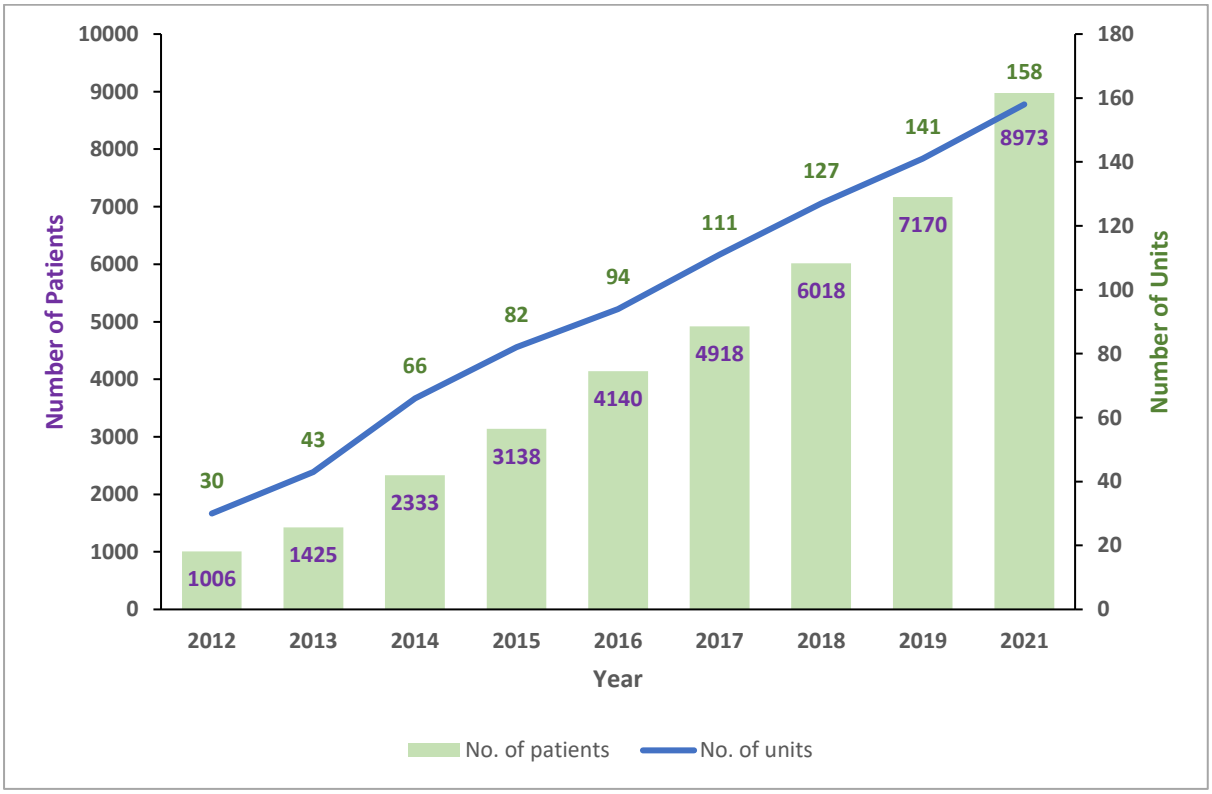

Figure 1: Participation in summer rounds of SAMBA. Number of units and number of patients included in each summer round of SAMBA. No patient data collection was undertaken in summer 2020 due to the Covid-19 pandemic. Winter SAMBA (January 2020) not included in this comparison as this was intended to be an additional round, additional to primary summer data collection.



Figure 2: Participating units in SAMBA2021. Red: England, Green: Wales, Blue: Scotland, Pink: Northern Ireland

The services

Participating hospitals ranged in size from 48 inpatient beds in total to 1500. The median number of inpatient beds at participating hospitals was 499 (interquartile range (IQR) 376-692).

The median number of AMU beds per unit was 40, but ranged from 7 to 129 (IQR 29-53)(Figure 3).

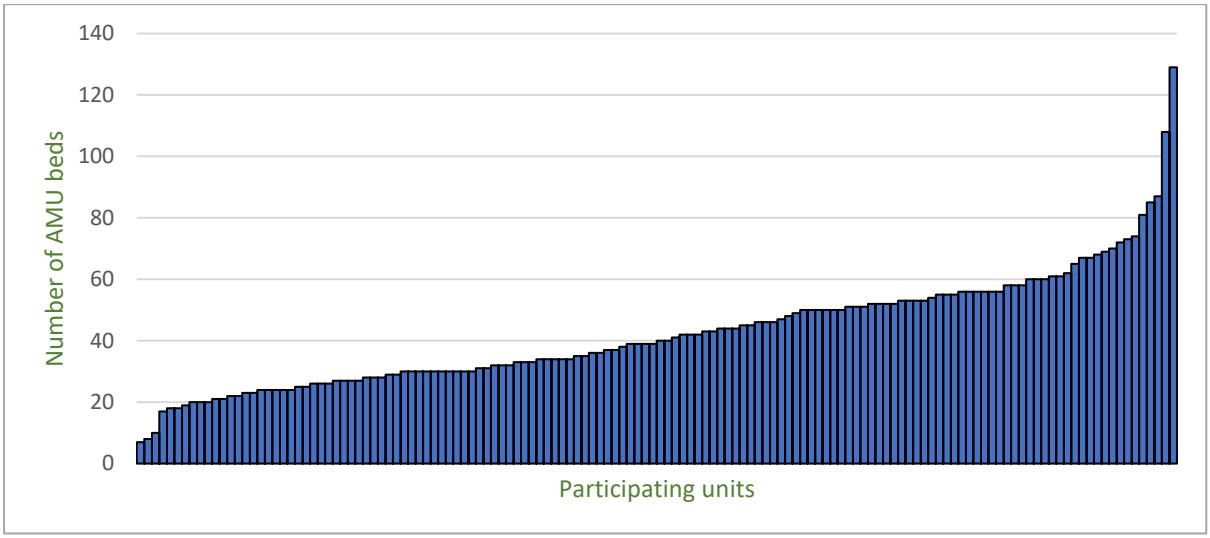

Figure 3: Number of AMU beds as each participating unit

64.5% of units reported using the NEWS2 as their Early Warning Score.

Eighteen units had level 2 beds on AMU (12.9%). The number of level 2 beds available on AMU in these units ranged from 2 to 16.

In 46.8% of units, paramedics are able to refer directly to acute medicine. Telephone triage of GP referrals is provided in 85.1% of units – often by a combination of staff, including consultants (65 units, 54% of those with telephone triage), registrars (44.2%), core trainees (11.7%), ANPs (20.8%), nurses (32.5%), ACPs (13.3%) or administrative staff (5.8%).

Ambulatory emergency care

97.8% of units provide ambulatory care. A separate unit for ambulatory care was utilised by 103 units (75.7% of those with ambulatory care). Forty-six units (33.8% of those delivering ambulatory care) delivered ambulatory care from within their Acute Medical Unit – 20 of these units reported delivering ambulatory care in a dedicated unit and within AMU.

A screening tool to identify those suitable for ambulatory care was used by 36 units (26.5% of those delivering ambulatory care).

Fifty-two units (38.2%) had some availability of point of care blood testing in ambulatory care. A private area for confidential discussions is available in 88.9% of services.

Most units (55.1%) started accepting patients between 08:00-09:00; 2.9% started between 07:00-08:00 and 28.7% started between 09:00-10:00. Finish times for accepting new patients were more variable (Table 1). Fifteen ambulatory care units (11.0%) were open 24 hours a day.

Table 1: Finish times for accepting new patients to ambulatory care

Finish time for accepting new ambulatory care patients	
16:00-16:59	8.1%
17:00-17:59	9.6%
18:00-18:59	25.0%
19:00-19:59	14.0%
20:00-20:59	20.6%
21:00-21:59	4.4%
22:00-22:59	4.4%

74.8% of units call the patient if they do not attend a planned appointment; 62.2% contact the patient's GP.

39.3% of units provide patient with information sheets on how to seek care if they become unwell at home.

Patient feedback surveys for AEC patients are conducted in 80% of services.

Patient level data

The patients

8973 patients were included in SAMBA2021.

The number of patients seen per unit ranged from 4 to 161 (median 50 patients, IQR 36-74)(Figure 4).

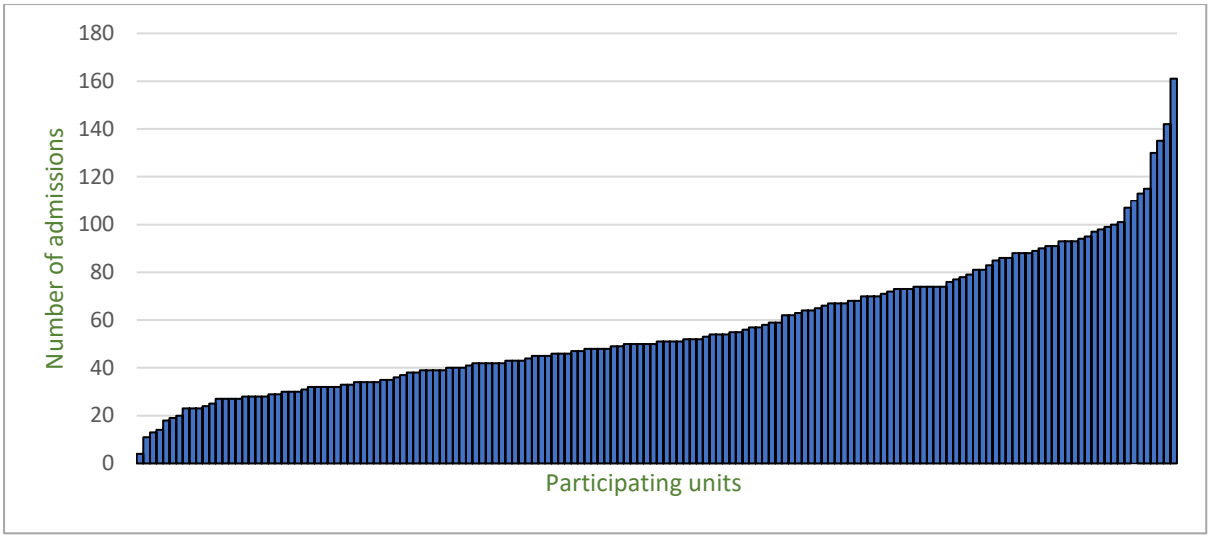

Figure 4: Number of admissions per unit participating in SAMBA 2021. Units ordered on x-axis by number of patients seen during the 24 hours of data collection. Range – 4-161.

Demographics

- 53.8% of patients were female (SAMBA19 53.3%, Winter SAMBA 54.8%)
- 25.5% were aged 80 years and above (SAMBA19 27.4%, WinterSAMBA 29.6%, Figure 5)

Scheduled returns

- 9.2% (828 patients) of patients were scheduled returns (SAMBA19 9%, WinterSAMBA 7.5%)
- The percentage of patients seen on the day of data collection who were scheduled returns varied between units (Figure 6)

Location before admission

- 5.4% were admitted from a care home (nursing or residential) (SAMBA19 6.0%, WinterSAMBA 6.4%)
- Thirty-three patients (0.4%) were homeless (WinterSAMBA 0.4%)
- 1.1% were transferred from another hospital (SAMBA19 1.4%, WinterSAMBA 1.1%)

Readmission

- 20.5% had been discharged from hospital in the last 30 days, although this was not necessarily from Acute Medicine or another medical specialty (SAMBA19 18.9%, WinterSAMBA 18.0%)

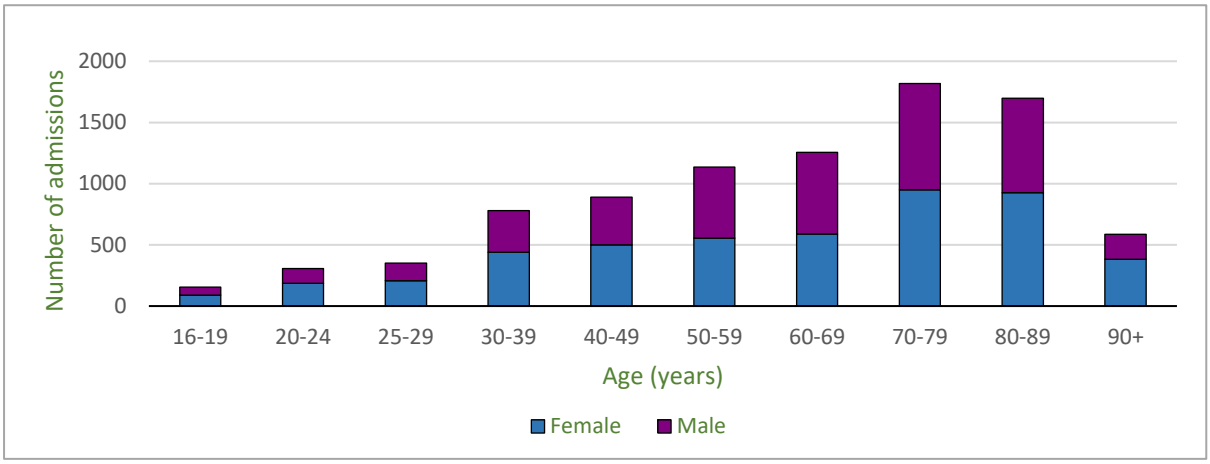

Figure 5: Age distribution of patients included in SAMBA 2021. Note: age categories vary in size between 16-29 years.

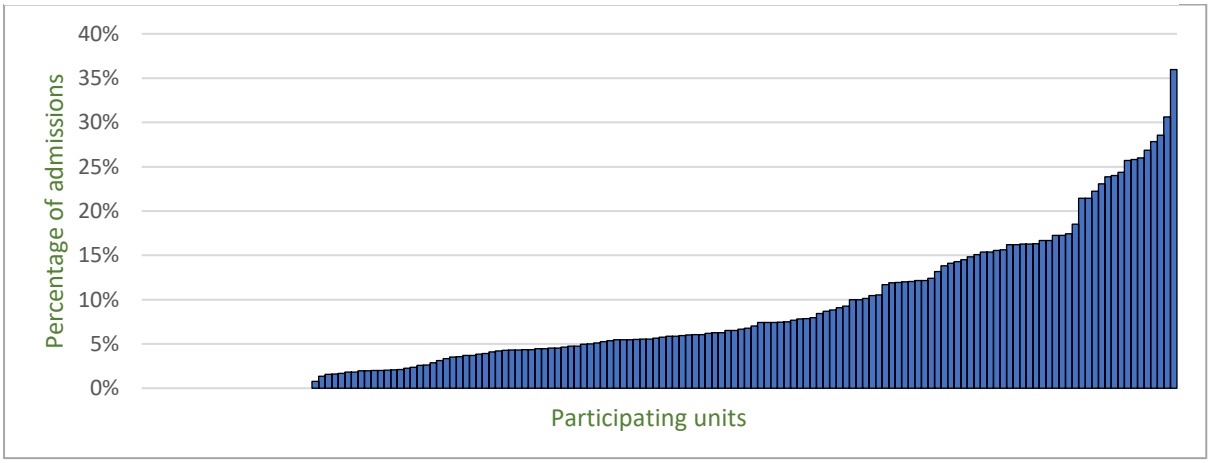

Figure 6: Percentage of admissions that were planned re-attendances. Participating units ordered by percentage that were planned reattendances. Twenty-six units reported no planned reattendances on the day of the audit.

Early warning scores

74.4% of patients had a NEWS2 of 0-2 on arrival (Figure 7) compared to 74.7% of patients in SAMBA19 and 69.6% in WinterSAMBA.

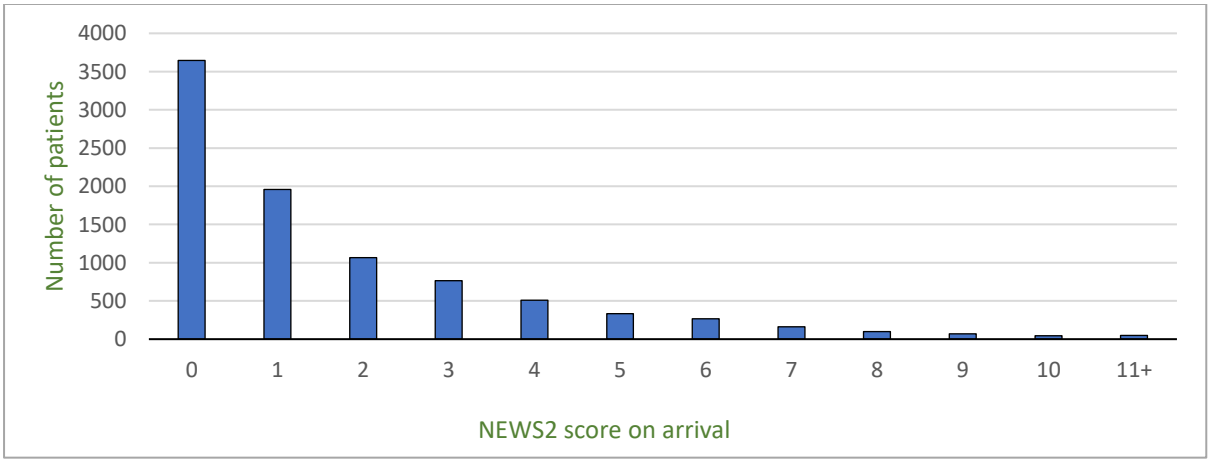

Figure 7: NEWS2 on arrival to hospital.

73.0% of unplanned admissions had a NEWS2 of 0-2 on arrival. 94.8% of scheduled returns had a NEWS2 of 0-2 on arrival.

Patient pathway

Assessing unplanned admissions (8142 patients), the majority of referrals to acute medicine were patients who attended via the emergency department (70.0%).

Table 2: Who referred patients to acute medicine?

	Source of referral			
	Emergency department	**Primary care**	**Paramedic**	**Own hospital**
SAMBA2021	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.

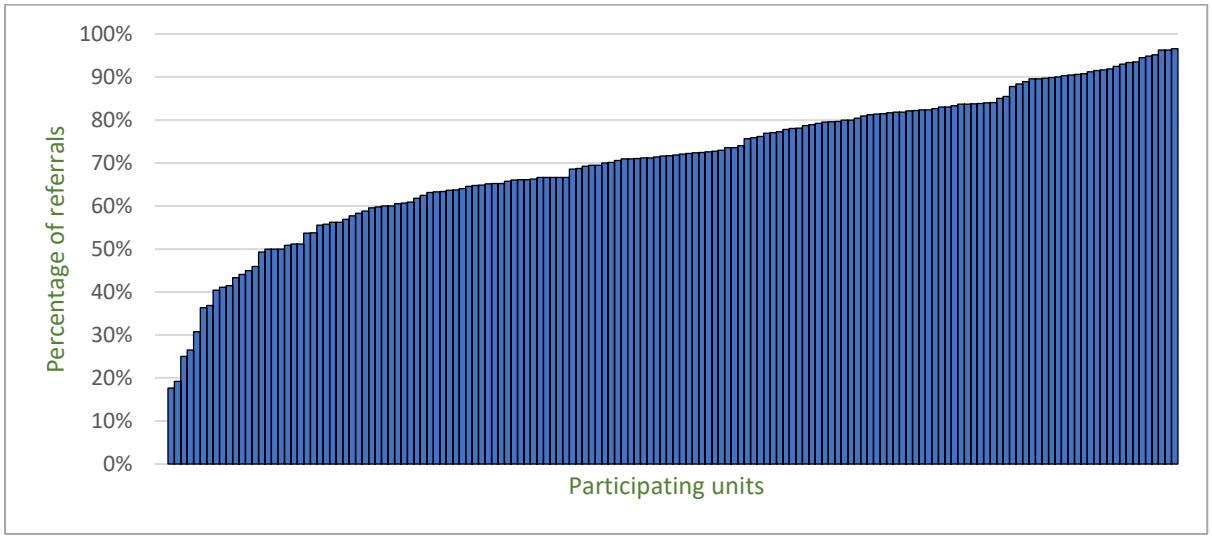

Figure 8: Percentage of patients included in the audit who were referred from the Emergency Department. Units ordered along x-axis by percentage of patients referred from ED. Note: two units did not see any patients that had presented to an ED.

Time of day

Most patients (unplanned admissions) arrived during the daytime:

- 15.8% of patients arrived between midnight and 8am
- 72.0% arrived between 8am and 8pm
- 12.2% 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.

62.5% of unplanned admissions (5086 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 9. 40.6% of patients had their first assessment by the medical team in the Emergency Department (SAMBA19 34.6%, WinterSAMBA 41.3%).

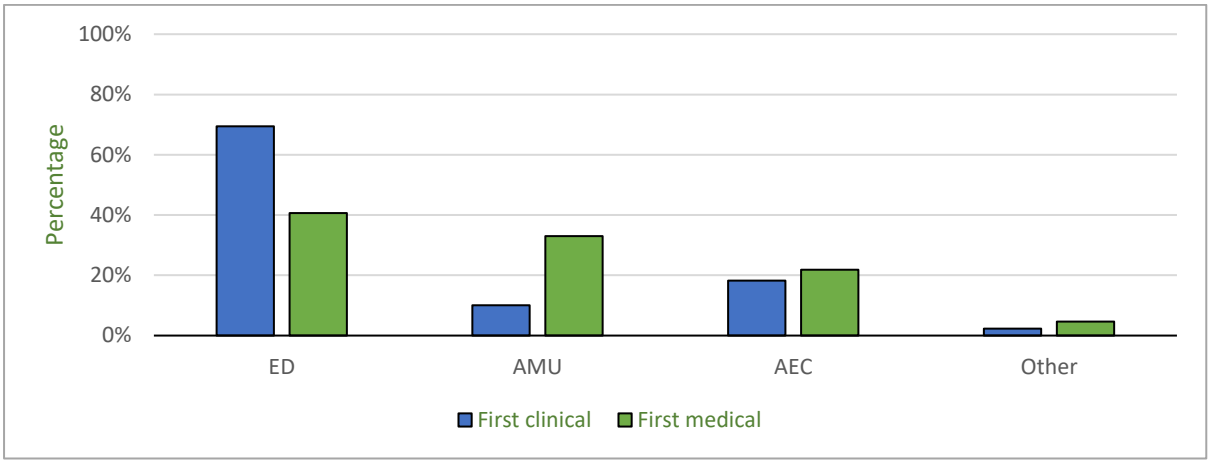

Figure 9: Assessment location for all admissions. Location of first clinical assessment and first assessment by the medical team. Patients who were scheduled to return included. ED: Emergency Department; AMU: Acute Medical Unit; AEC: Ambulatory Emergency Care.

Location of first medical assessment

The location of the first assessment by a member of the medical team in also shown in Figure 9.

Patient journey

Patient journey for unplanned admissions is summarised in Figure 10. This is a simplified diagram – pathways taken by patients through their hospital admission are complex.

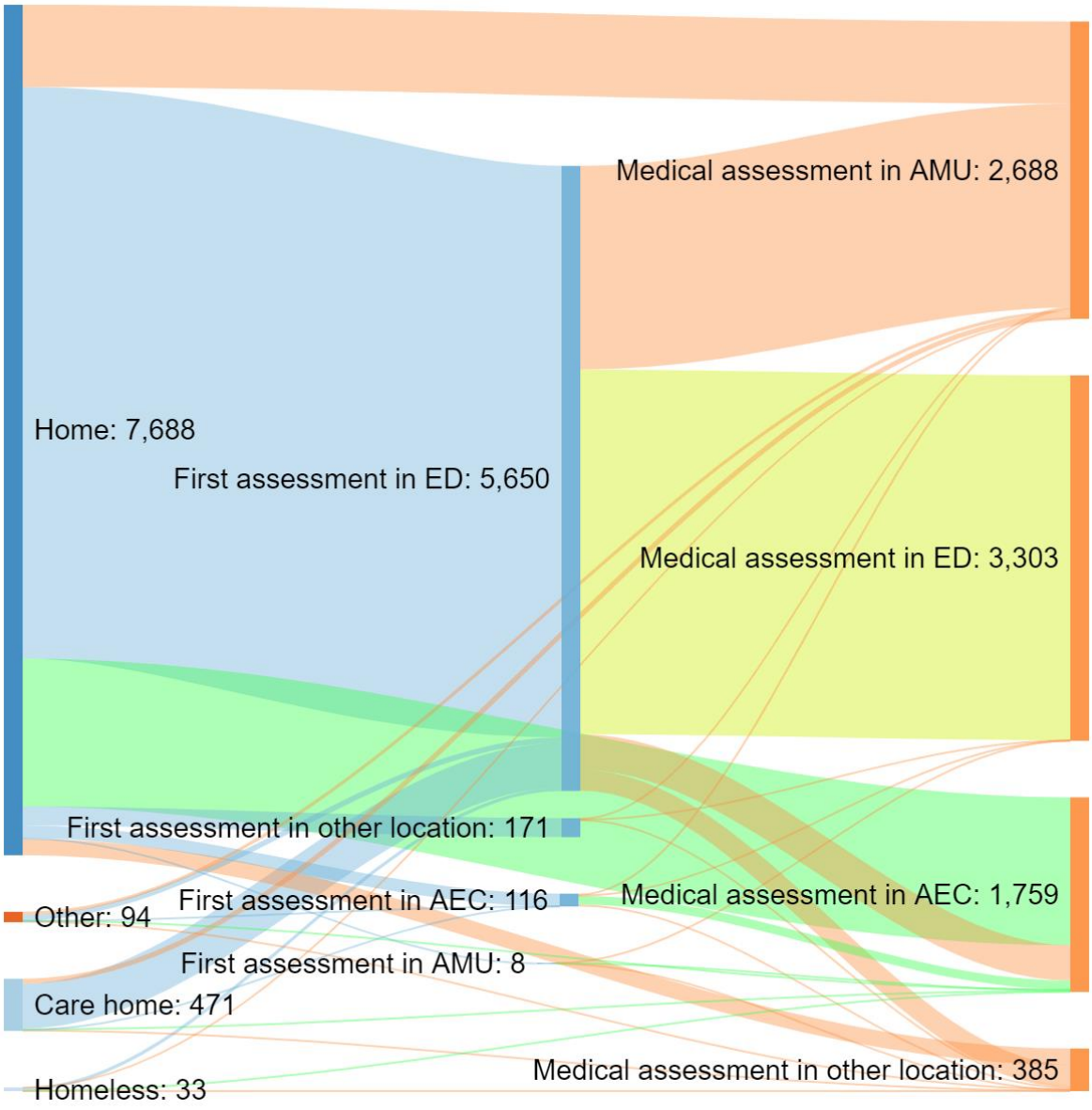

Figure 10: Sankey diagram of patients' initial journey through acute medical admission. ED: Emergency Department, AMU: Acute Medical Unit; AEC: Ambulatory Emergency Care.

Ambulatory emergency care

The percentage of patients (unplanned admissions) seen in AEC varied between units. Comparison between units is shown in Figure 11. Twenty-seven units didn't see any unplanned admissions in AEC. A third or more of admissions were seen by the medical team in AEC in 25.4% of units.

The age range of patients who had their assessment by the medical team in AEC is shown in Figure 12.

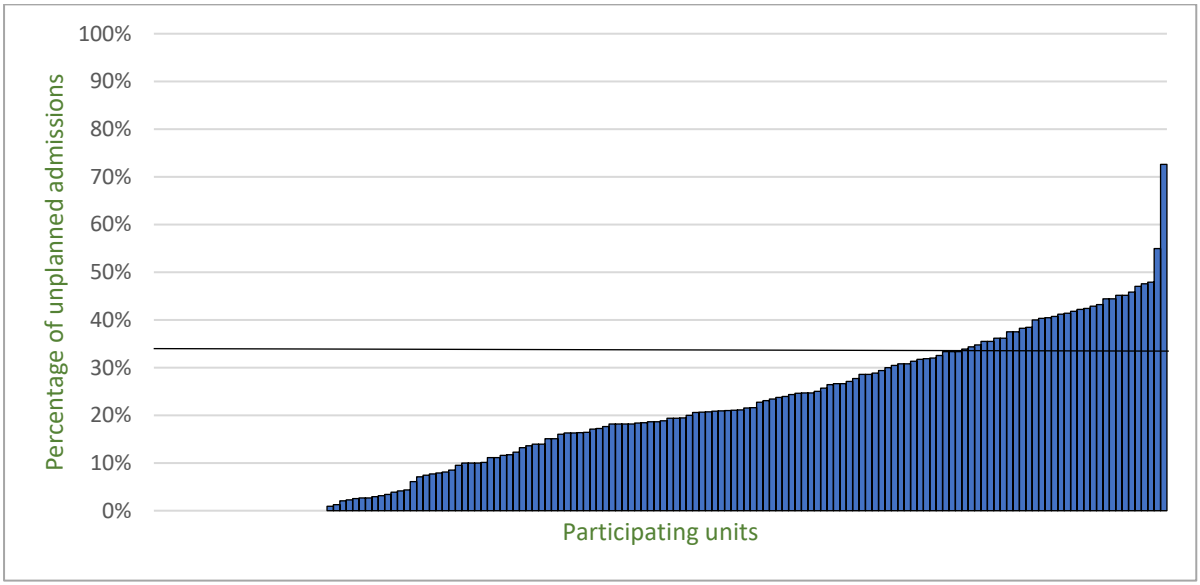

Figure 11: Percentage of patients who received their first medical assessment in Ambulatory Emergency Care (AEC). Units ranked along x-axis by percentage seen in AEC. Target line at 33.3% based on recommendations for provision of Same Day Emergency Care (SDEC) from NHS Long Term Plan.[16]

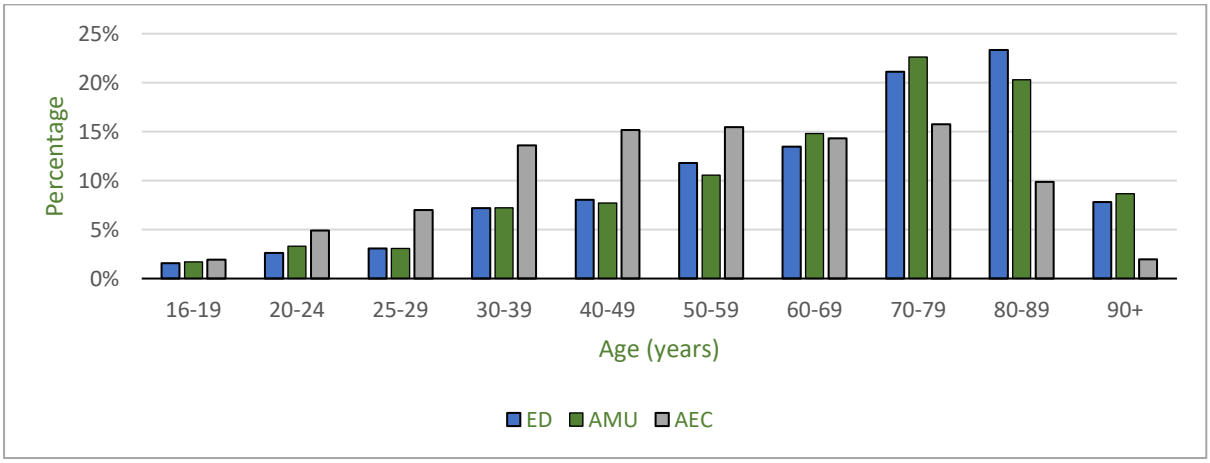

Figure 12: Age distribution of the patients having their first assessment by the medial team in each area: ED, AMU & AEC. Unplanned admissions only

Clinical Quality Indicator Outcomes SAMBA 2021

Clinical Quality Indicator 1: Early warning score within 30 minutes

77.4% of patients had an early warning score recorded within 30 minutes of arrival to hospital (95% CI 76.5-78.3%). This target was met by 79.8% in SAMBA19, 74.3% in WinterSAMBA.

Table 3: Percentage of 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			
Percentage achieving target	**ED**	**AMU**	**AEC**	**Other locations**
SAMBA2021	78.4%	75.6%	76.6%	66.3%
Winter SAMBA	75.6%	69.9%	74.1%	61.9%
SAMBA19	81.5%	79.6%	77.9%	n/a

For unplanned admissions, this target was achieved by 78.6% (95%CI 77.6-79.5%).

Individual unit performance is shown in Figure 13.

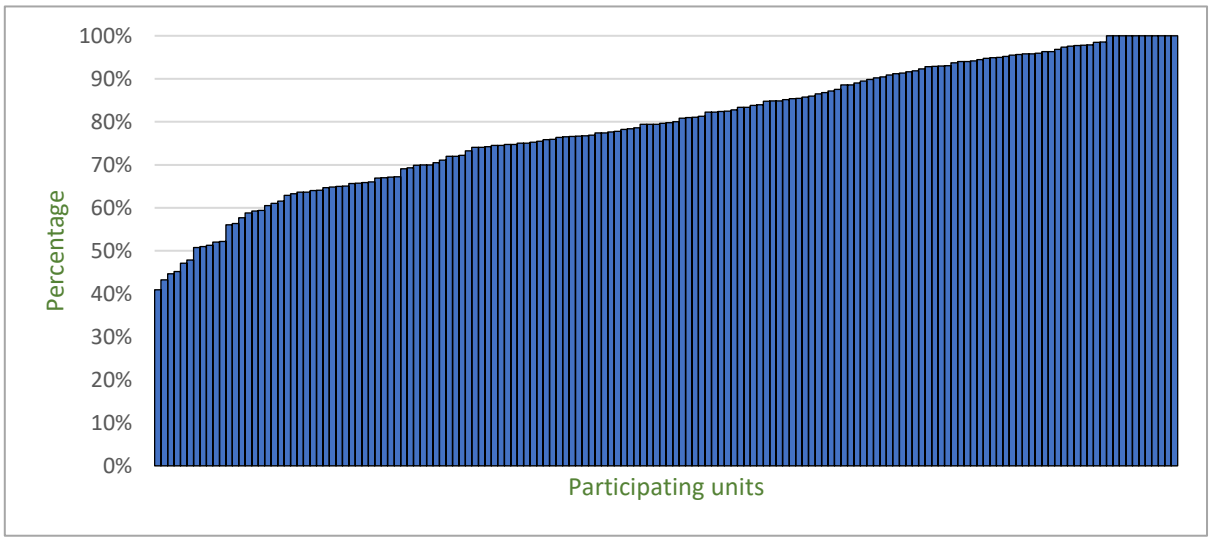

Figure 13: Percentage of admissions where target for Early Warning Score measurement within 30 minutes of arrival achieved, for participating units. Units ranked along x-axis.

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

87.4% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital (95% CI 86.6-88.1%). This target was met by 91.0% in SAMBA19, 84.4% in WinterSAMBA.

Comparison of individual unit performance is shown in Figure 14.

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

CQI 2	**Location of initial clinical assessment**			
Percentage achieving target	**ED**	**AMU**	**AEC**	**Other locations**
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

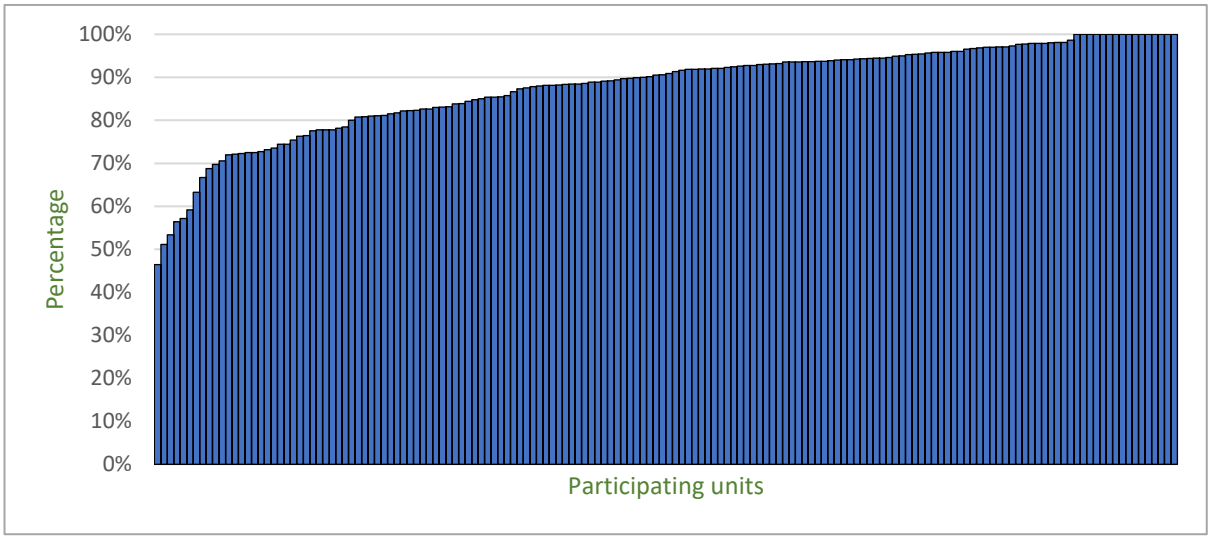

Figure 14: Percentage of admissions where target for clinical decision maker review within 4 hours of arrival achieved, for participating units. Units ranked along x-axis

Clinical Quality Indicator 3: Assessment by consultant within target time

Overall, 67.8% of unplanned admissions who required a medical consultant review were seen within the target time (95% CI 66.6-68.9%). This target was met by 69.6% in SAMBA19, and 61.9% in WinterSAMBA. Comparison of individual unit performance is shown in Figure 15.

12.3% of unplanned admissions did not require a consultant review (SAMBA19 12.5%, WinterSAMBA 12.3%). A breakdown is shown in Table 6.

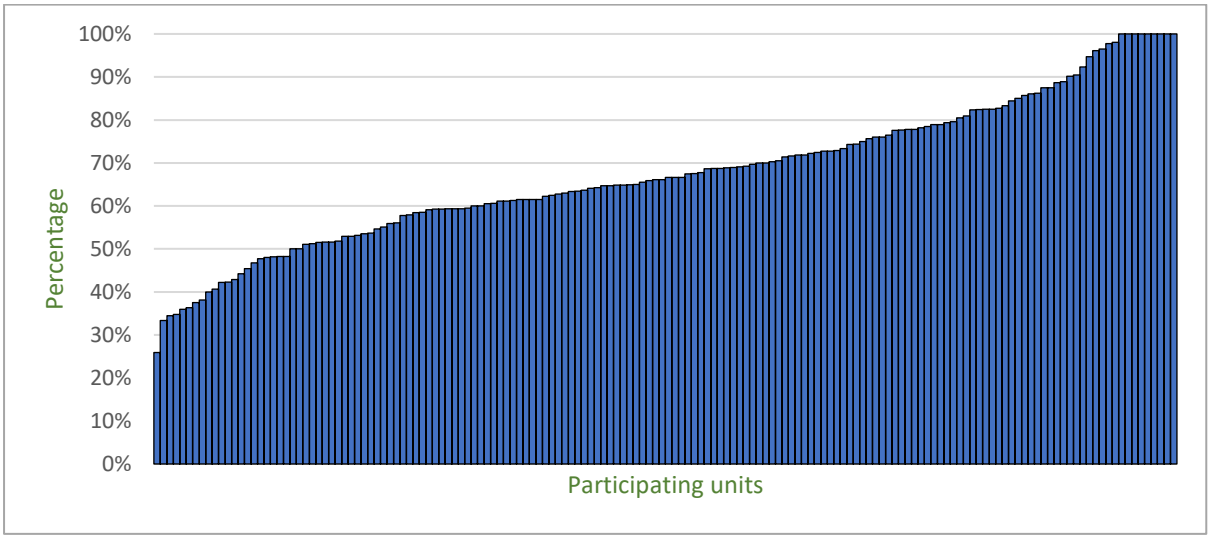

Figure 15: Per unit, percentage of patients where consultant review was achieved in the target time. Target time 6 hours for arrivals from 08:00-20:00; 14 hours for arrivals from 20:00-08:00. Units ranked along x-axis – note that units will not be in same order in the three graphs.

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**			
Percentage achieving target	**ED**	**AMU**	**AEC**	**Other locations**
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%	

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	816
Registrar	*471*
Other junior doctor	*138*
ANP/ACP	*150*
Specialist nurse	*16*
GP	*7*
Other consultant	*3*
PA	7
Unknown	24
Solely required investigations/intervention	73
Self-discharged before consultant review	61
Transferred to another specialty after assessment by the medical team	37
Transferred to ICU before consultant review	15
Patient died before consultant review	1
Total	*1002*

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

	Location of initial assessment			
	ED	**AMU**	**AEC**	**Other**
CQI 1				
00:00-08:00	79.8%	85.7%	75.0%	45.5%
08:00-20:00	78.8%	75.1%	76.6%	67.1%
20:00-00:00	74.3%	71.9%	81.3%	71.4%
CQI 2				
00:00-08:00	81.1%	73.3%	76.7%	72.7%
08:00-20:00	89.4%	85.8%	94.4%	86.5%
20:00-00:00	80.9%	77.7%	85.7%	57.1%
CQI3				
00:00-08:00	89.1%	97.0%	95.0%	100%
08:00-20:00	49.2%	71.4%	88.4%	68.0%
20:00-00:00	83.8%	91.8%	77.8%	94.1%

Note: Only 29 patients were seen in AEC outside of daytime hours.

Completion of all indicators

All three CQIs were achieved within the target times for 50.6% of patients who required a consultant review (44.1% in WinterSAMBA). Comparison of individual unit performance is shown in Figure 16.

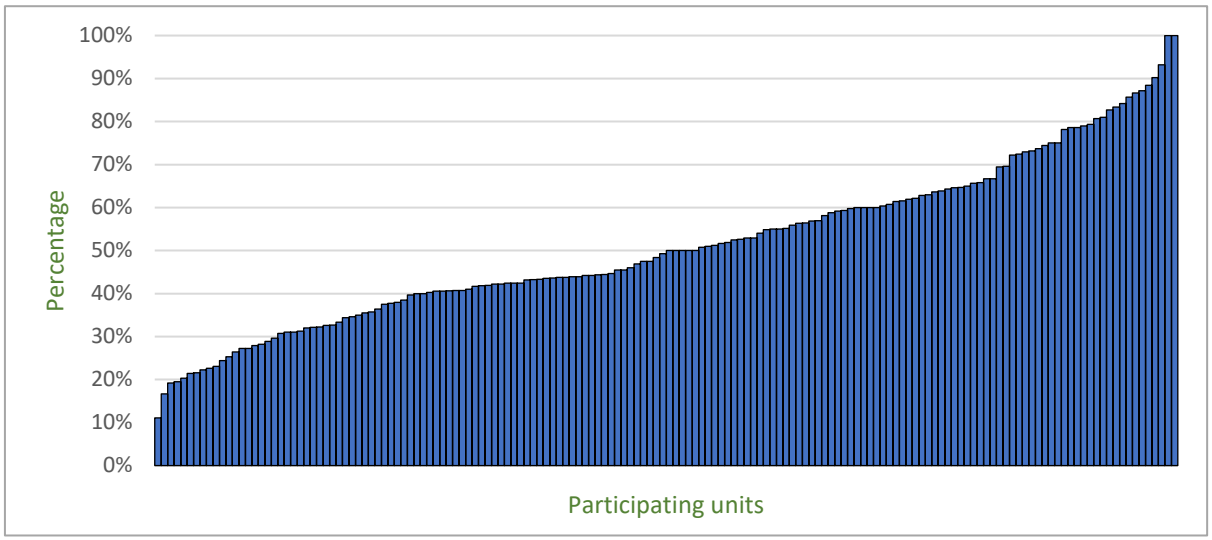

Figure 16: Percentage of patients where all three CQIs were achieved, by unit. Units ranked along x-axis.

Outcomes at seven days

Figure 17 shows patient outcomes at 7 days for all unplanned admissions compared to Winter SAMBA 2020 and SAMBA19.

31.5% of unplanned admissions were discharged on the day of arrival.

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).

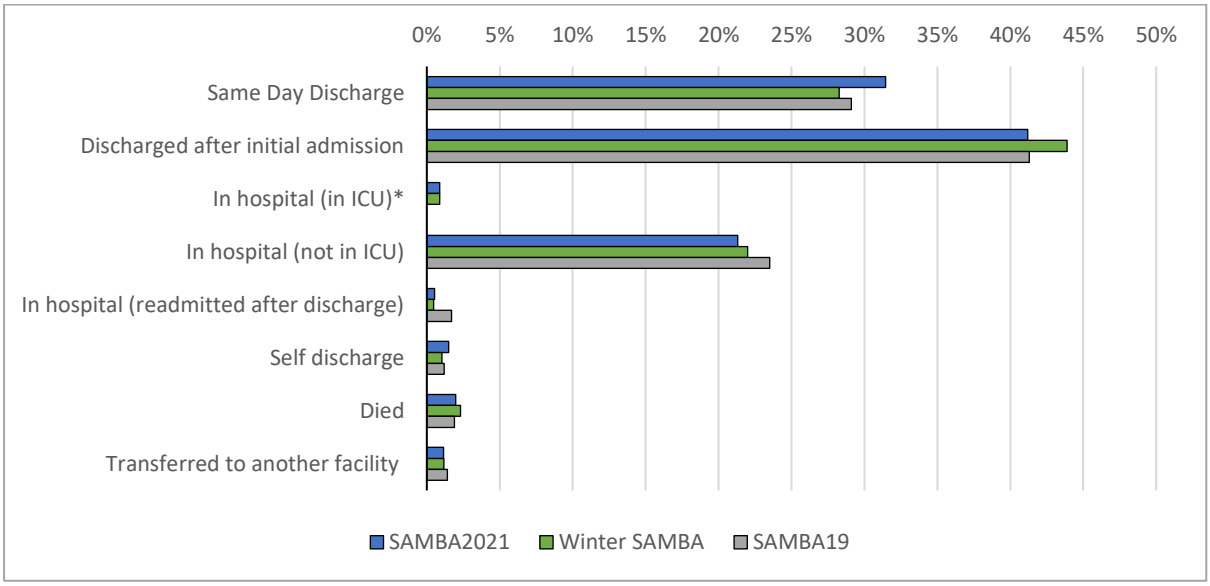

*Figure 17: Patient outcomes at 7 days. *note ICU admissions were not recorded for SAMBA19.*

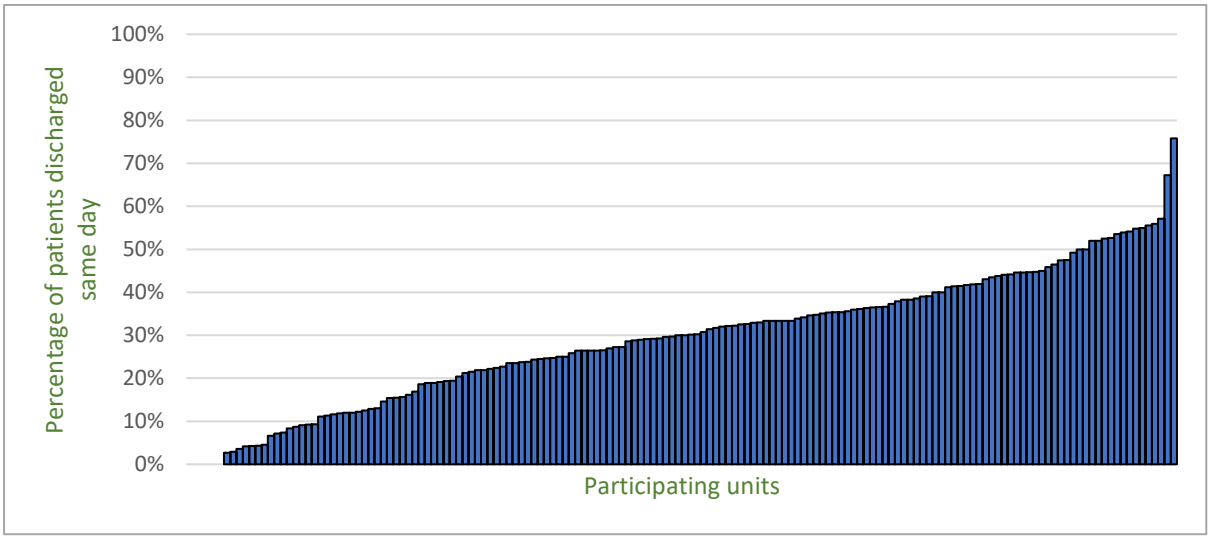

Figure 18: Percentage of patients discharged without overnight admission. Units ordered along x axis.

Summary & Discussion

What has SAMBA 2021 shown?

SAMBA2021 provides the first evaluation of performance of acute medicine services against the key clinical quality indicators since the start of the Covid-19 pandemic. Performance against these measures was better than the performance in winter (SAMBA2020), and similar in comparison to SAMBA19. In some ways, this is reassuring that despite widespread changes within clinical practice, and periods of increased clinical demand, acute medicine services are currently able to deliver performance against the clinical quality indicators that is consistent with pre-pandemic summer performance.

The results of SAMBA2021 suggest that acute medical admissions are more likely to be referred from the emergency department, with a higher proportion of patients seen via emergency medicine than in SAMBA19. This may reflect ongoing increased pressures on emergency medicine services, as attendances to Type 1 Emergency Departments are higher than comparable periods in 2019 and 2020.(17) This demonstrates the close work that is needed between acute and emergency medicine, and the importance of ensuring that the pathways between emergency and acute medicine can deliver patient care as efficiently and safely as possible.

However, in keeping with previous rounds of SAMBA, there was considerable variation in the performance of individual units, with some units meeting these time-based targets for all of their patients. This suggests that there are opportunities for us to learn from other centres, and that there is opportunity to explore if and how aspects of these high-performing services can be adapted to improve performance at other units.

Limitations

There was considerable variation in performance between units. 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

SAMBA2021 adds to our knowledge about the delivery of acute medical care within the UK, and the performance of acute services following the Covid-19 pandemic. While it is reassuring that there the performance has not significantly dropped since SAMBA19, there are clear areas where room for improvement persists and progress is needed, for example to target review of patients by medical consultants within target times, where performance appears consistently below target.

There is also ongoing concern about increased pressure on acute care services, with demand rising in both primary care, via general practice, and secondary care, via emergency medicine. How this increasing demand, combined with recent alterations in emergency medicine targets and indicators, and likely to be compounded by winter pressure and ongoing waves of admission due to Covid-19, will impact future performance of acute medicine services remains to be seen. This must be carefully monitored and effects of performance evaluated.

Our hope is that SAMBA can continue to develop, offering insights that can be used locally to improve care, helping us to learn from other centres to develop services locally, and feeding into quality improvement, as well as helping to highlight gaps in our current knowledge and areas for improvement, dovetailing into research within acute medicine. SAMBA has continued to expand, with more units than ever taking part this year – we plan to improve the processes of SAMBA, including the methods of data collection and reporting, to help ensure that all those who want to take part in SAMBA can do so, and that the information we deliver to units is helpful to them to improve processes and care locally.

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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

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
Basildon University Hospital	Mid and South Essex NHS Foundation Trust
Bedford Hospital	Bedfordshire 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
Chesterfield Royal Hospital	Chesterfield Royal Hospital NHS Foundation Trust
Chorley and South Ribble Hospital	Lancashire Teaching Hospitals NHS Foundation Trust
Conquest Hospital	East Sussex Healthcare NHS Trust
Clatterbridge Cancer Centre	The Clatterbridge Cancer Centre NHS Foundation 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
Derriford Hospital	University Hospitals Plymouth NHS 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
Good Hope Hospital	University Hospitals Birmingham 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
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
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
Lincoln County Hospital	United Lincolnshire Hospitals NHS 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
Manchester Royal Infirmary	Manchester University NHS Foundation 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
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
Poole Hospital – AMU	University Hospitals Dorset NHS Foundation Trust
Poole Hospital - RACE Unit	University Hospitals Dorset NHS Foundation Trust
Queen Alexandra Hospital	Portsmouth Hospitals University NHS Trust
Queen Elizabeth Hospital	Lewisham and Greenwich NHS Trust
Queen Elizabeth Hospital	Gateshead Health NHS Foundation Trust
Queen Elizabeth Hospital	The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust
Queen Elizabeth Hospital	University Hospitals Birmingham NHS Foundation Trust
Queen Elizabeth the Queen Mother Hospital	East Kent Hospitals University 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 Albert Edward Infirmary	Wrightington, Wigan and Leigh Teaching Hospitals NHS Foundation Trust
Royal Berkshire Hospital	Royal Berkshire 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 Hampshire County Hospital	Hampshire Hospitals NHS Foundation Trust
Royal Lancaster Infirmary	University Hospitals of Morecombe Bay NHS Foundation Trust
Royal Liverpool University Hospital	Liverpool University Hospitals 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
Royal Victoria Infirmary	The Newcastle upon Tyne Hospitals 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
Southend University Hospital	Mid and South Essex NHS Foundation Trust
Southmead Hospital	North Bristol NHS Trust
St George's University Hospital	St Georges University Hospitals NHS Foundation Trust
St Helier Hospital	Epsom and St Helier University Hospitals NHS Trust
St Mary's Hospital	Isle of Wight NHS Trust
St Richard's Hospital	University Hospitals Sussex 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
Torbay Hospital	Torbay and South Devon NHS Foundation Trust
Tunbridge Wells Hospital	Maidstone and Tunbridge Wells NHS Trust
University Hospital Coventry	University Hospitals Coventry & Warwickshire NHS Trust
University Hospital Lewisham	Lewisham and Greenwich NHS Trust
University Hospital of North Durham	County Durham & Darlington NHS Foundation Trust
University Hospital of North Tees	North Tees and Hartlepool NHS Foundation Trust
Walsall Manor Hospital	Walsall Healthcare NHS Trust
Warwick Hospital	South Warwickshire NHS Foundation Trust
West Cumberland Hospital	North Cumbria Integrated Care NHS Foundation Trust
West Middlesex University Hospital	Chelsea and Westminster Hospital 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
William Harvey Hospital	East Kent Hospitals University NHS Foundation Trust
Worcestershire Royal Hospital	Worcestershire Acute Hospitals NHS Trust
Worthing Hospital	Western Sussex Hospitals NHS Foundation Trust
Wythenshawe Hospital	Manchester University NHS Foundation Trust
Yeovil District Hospital	Yeovil District Hospital NHS Foundation Trust
York Hospital	York and Scarborough Teaching Hospitals NHS Foundation Trust

Northern Ireland

Antrim Area hospital	Northern Health and Social Care Trust
Royal Victoria Hospital	Belfast Health and Social Care Trust
South West Acute Hospital	Western Health and Social Care Trust
Ulster Hospital	South Eastern Health and Social Care Trust

Scotland

Aberdeen Royal Infirmary	NHS Grampian
Balfour Hospital	NHS Orkney
Dumfries and Galloway Royal Infirmary	NHS Dumfries and Galloway
Raigmore Hospital	NHS Highland
Royal Alexandra Hospital Paisley	NHS Greater Glasgow and Clyde

Wales

Nevill Hall Hospital	Aneurin Bevan University Health Board
Prince Charles Hospital	Cwm Taf Morgannwg University Health Board
Princess of Wales Hospital	Cwm Taf Morgannwg University Health Board
Royal Glamorgan Hospital	Cwm Taf Morgannwg University Health Board
Royal Gwent Hospital	Aneurin Bevan University Health Board
The Grange University Hospital	Aneurin Bevan University Health Board
Ysbyty Gwynedd	Betsi Cadwaladr University Health Board