Society for Acute Medicine Benchmarking Audit

Winter SAMBA 2024 Report

A National Audit of Acute Medical Care in the UK

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Welcome to Winter SAMBA24

The winter round of the Society for Acute Medicine Benchmarking Audit (SAMBA) 2024 provides a snapshot of the care provided for acutely unwell medical patients in the UK over a 24-hour period on Thursday 22nd February 2024.

Maintaining and improving the quality of care provided to our patients within acute medicine services is vital, but presents an ongoing challenge given the continual pressures felt across the urgent and emergency care system. Previous evaluation demonstrated that service performance was lower in winter, however performance in summer has been shown to be decreasing in recent years; this winter round of SAMBA aimed to assess whether acute medicine service performance (as measured by achievement of clinical quality indicators for unplanned medical attendances to hospital) remains lower in winter compared to summer.

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 the public.

The report has been sponsored by the Society for Acute Medicine (SAM). Everyone involved in conducting the audit 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.

Executive Summary

Winter SAMBA24 took place on Thursday 22nd February 2024, with follow-up data collected 7 days later. Acute medical teams from 82 hospitals 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 5276 patients.

Key findings

Performance against clinical quality indicators

- 73.1% of unplanned admissions had an early warning score recorded within 30 minutes of arrival to hospital
    - This target was met by 73.3% in SAMBA23 and 68.8% in SAMBA22
    - Previous winter performance was 74.9% in WinterSAMBA20
- 78.8% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital
    - This target was met by 81.7% in SAMBA23 and 78.7% in SAMBA22
    - Previous winter performance was 84.4% in WinterSAMBA20
- 51.9% of unplanned admissions who required a medical consultant review were seen within the target time
    - This target was met by 52.9% in SAMBA23 and 49.8% in SAMBA22
    - Previous winter performance was 61.9% in WinterSAMBA20
    - This target was least likely to be achieved in unplanned admissions initially assessed in the Emergency Department who arrived between 08:00-20:00 (26.1% seen within 6 hours)

Outcomes at 7 days

- 38.6% of patients (unplanned admissions) were discharged the same day (32.9% in SAMBA23)
- 35.8% of patients had an inpatient hospital admission that lasted for 1-7 days (38.1% in SAMBA23)

Overall message

Performance against all key clinical quality indicators was similar to performance in the last two summer rounds of data collection, but lower than in the last Winter SAMBA in January 2020. These results reflect the ongoing pressures that are faced by acute medicine services, across the entire year. Many units continue to see a high proportion of their patients within the Emergency Department, demonstrating the prolonged pathways to assessment and diagnosis faced by our patients. The proportion of unplanned attendances discharged the same day continues to increase, in part reflecting the utilisation of Same Day Emergency Care pathways within acute medicine services.

Setting the scene

Acute medicine services across the UK continue to face substantial pressures in keeping with the ongoing pressures with all parts of the urgent and acute care pathway.[5, 6] Patients seen within these services require prompt assessment, investigations and management; as such, the clinical quality indicators used to assess acute medicine performance use time-based metrics.[7] Performance against these indicators deteriorated in summer in 2022 and remained lower in 2023 than previous years.

The structure and delivery of the services provided by acute medicine varies between hospitals, including changes adopted as a response to pressure, including COVID-19 (ongoing since early 2020)[8, 9], as well as 'winter pressures'[10], expansion of Same Day Emergency Care (SDEC) services, and adoption of various specialised services such as frailty units, respiratory support units, enhanced care beds, virtual wards and hospital at home. [11-13]

Winter SAMBA24 (wSAMBA24) aimed to assess the same key clinical quality indicators as previously, to help us understand how performance in winter compares to performance in summer, and to previous winter performance in January 2020.

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 and community care, paramedics (e.g. within ambulance services), and outpatient secondary care 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 SDEC,[14] to those who are physiologically unstable and require escalation to higher level care, e.g. admission to an Intensive Care Unit. 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 24 years has expanded and developed a network of consultants, trainees and multidisciplinary members, delivering education, quality improvement, 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, with additional data collection in January 2020, and now in February 2024. 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 same day emergency care (SDEC) 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 winter SAMBA24 are unchanged from those used since SAMBA19 onwards, to facilitate comparison between the results.[15-17]

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, SDEC, 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 Clinical 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, SDEC, or AMU. Daytime working hours are 08:00-20:00.

Definitions

Definitions of compliance are unchanged from previous rounds of SAMBA from SAMBA19 onwards. The background to these definitions is discussed within the SAMBA19 Report.[15]

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 most patients start their journey in the ED, some patients will be admitted directly to AMU or SDEC. Many medical patients never reach the AMU, being discharged from ED, admitted directly to other wards, or redirected to SDEC. 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 its interpretation is therefore different to the interpretation of waiting times for patients who are admitted directly to AMU or SDEC. To aid interpretation, we have also presented information about time to review and location of review by a medical clinician. Individual units are encouraged to think about their local context and processes when interpreting the results.

Hospital Participation

Participation in SAMBA is voluntary for acute medicine services, but is now recognised by HQIP. The full list of hospitals who took part in wSAMBA24 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.

Winter SAMBA24 was promoted to SAM members via email, on X/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. Units that had participated in previous rounds of the audit were required to re-register to ensure they had received the updated documentation for wSAMBA24.

Who and When?

Recruitment to wSAMBA24 was open to all hospitals receiving acutely unwell medical patients. Non-acute and community hospitals were excluded. Acute medicine teams 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 22nd February 2024 between 00:00 to 23:59 hours and patients returning as a planned attendance to SDEC within these hours. The data for patients returning to SDEC is not used in all the analyses below and the reader is guided through the data included in each section.

Data Collection

For wSAMBA24, 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.[18, 19] 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.

Both unit data and patient level data was collected in wSAMBA24. Unit level data included information regarding size of AMU and hospital, and provision of SDEC services. Acuity of illness was assessed using the National Early Warning Score 2 (NEWS2).[20] 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. National results are collated into a National SAMBA Report and have previously been published in peer reviewed journals,[7, 16, 17, 21] and presented at SAM conferences.

Results

Unit participation

82 units submitted patient data for wSAMBA24, from 80 hospitals. One hospital site submitted data from an Acute Medical Unit and a separate frailty service.

Of these participating units, 77 submitted unit data alongside patient data.

Patient data was submitted for 76 hospitals in England, 2 in Northern Ireland, 2 in Scotland, 1 in Australia, and 1 in Jersey.

The services

Participating hospitals with inpatient services ranged in size from 175 to 1300 total inpatient beds. The median number of inpatient beds at participating hospitals was 517 (interquartile range (IQR) 370-706).

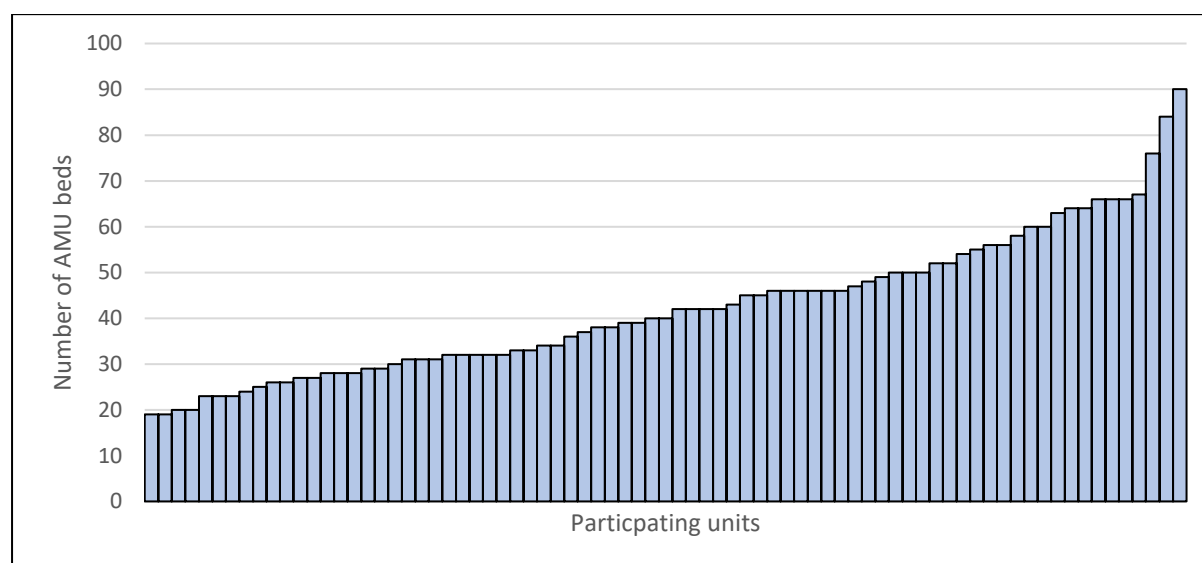The median number of AMU beds per unit was 40 (IQR 31-50, range 19-90) (Figure 1).

Figure 1: Number of AMU beds as each participating unit

All participating units had an on-site Emergency Department.

15 (19%) units had an enhanced care area/unit within their acute medicine service. These units had a median of 8 enhanced care beds (IQR 6-9, range 4-16).

Patient level data

The patients

5276 patients were included in wSAMBA24.

The median number of patients seen per unit was 65 (IQR 42-81, range 6-136)(Figure 2).
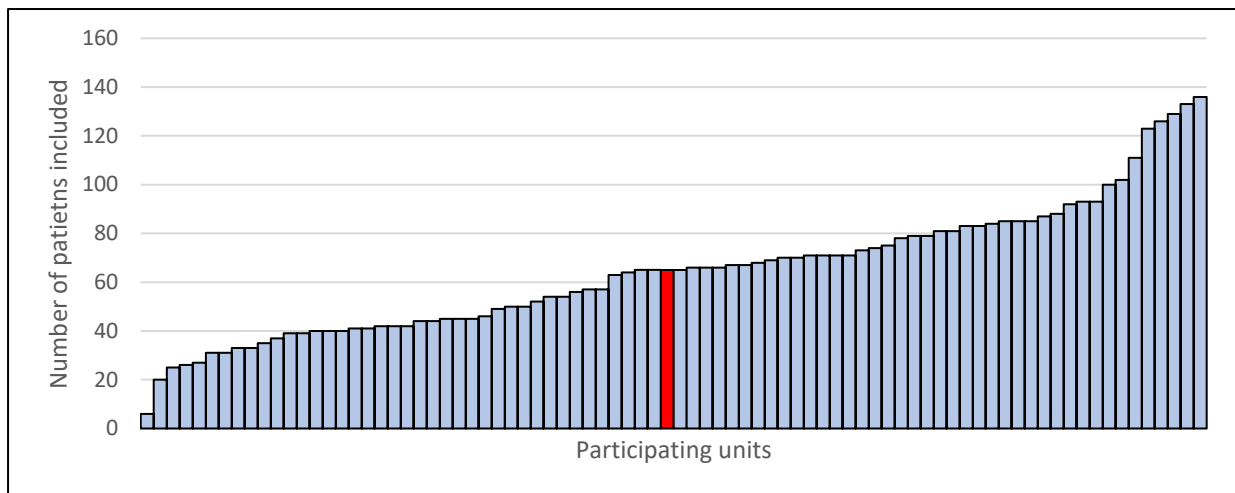

Figure 2: Number of admissions per unit participating in wSAMBA24. Units ordered on x-axis by number of patients seen during the 24 hours of data collection. Planned and unplanned admissions included. Range: 6-136. Red marks median unit performance.

Demographics
- 53% of patients were female (SAMBA23: 53%; wSAMBA20: 55%)
- 25% were aged 80 years and above (SAMBA23: 25%; wSAMBA20 29.6%; Figure 3)

Scheduled returns
- 12.7% of patients (669 patients) were scheduled returns (SAMBA23: 14.6%; wSAMBA20 7.5%)
- The percentage of patients seen on the day of data collection who were scheduled returns varied between units (Figure 4)

Location before admission
- 5.4% were admitted from a care home (nursing or residential) (SAMBA23: 5.1%; wSAMBA20: 6.4%)
- 0.4% of patients were homeless (SAMBA23: 0.7%; wSAMBA20: 0.4%)
- 0.9% were transferred from another hospital (SAMBA23: 1.2%; wSAMBA20: 1.1%)

Readmission
- 20% of unplanned admissions had been discharged from hospital in the last 30 days (SAMBA23: 20%; wSAMBA20 18%)
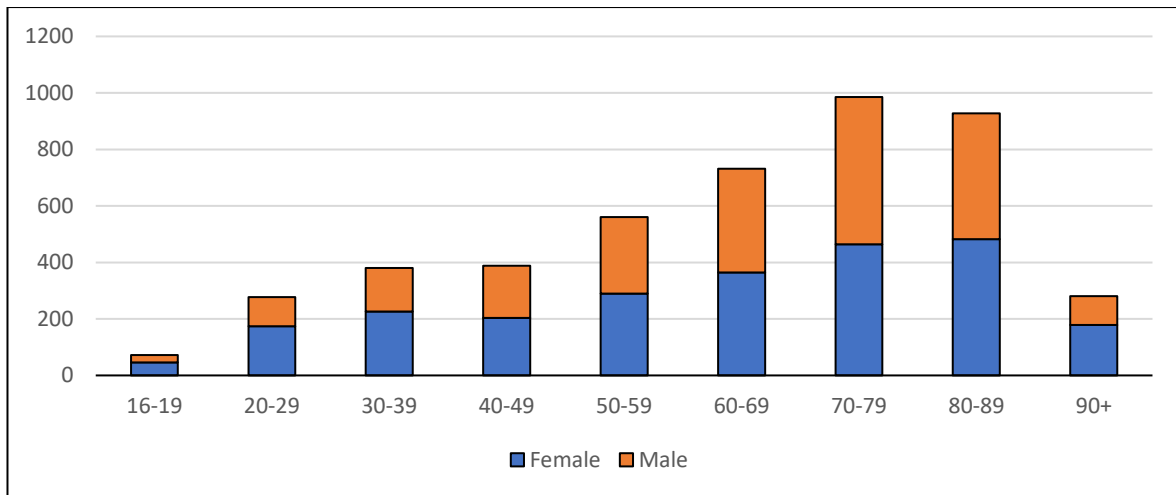
Figure 3: Age distribution of unplanned admissions included in wSAMBA24. Note: age categories vary in size between 16-29 years.
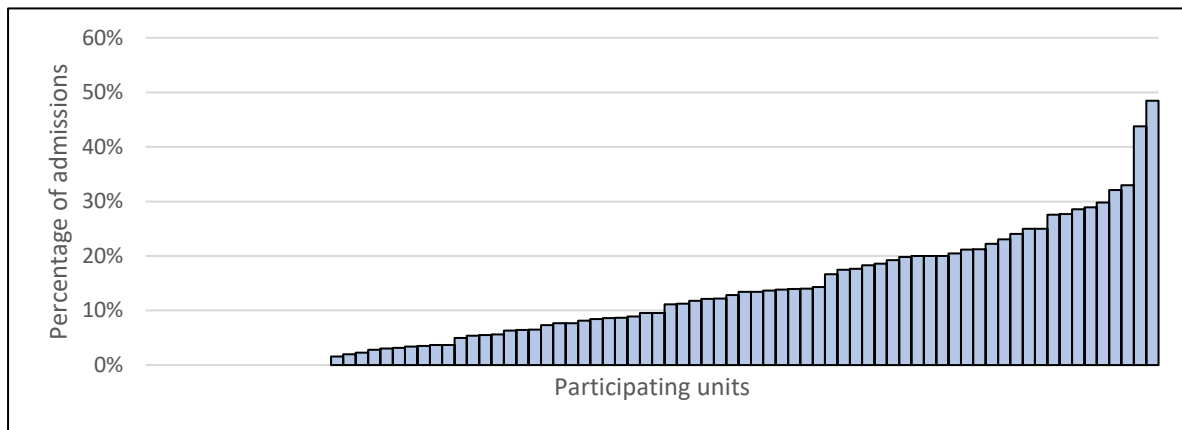

Figure 4: Percentage of admissions that were planned re-attendances. Participating units ordered by percentage that were planned reattendances. Thirty-six units reported no planned reattendances on the day of the audit.

Early warning scores

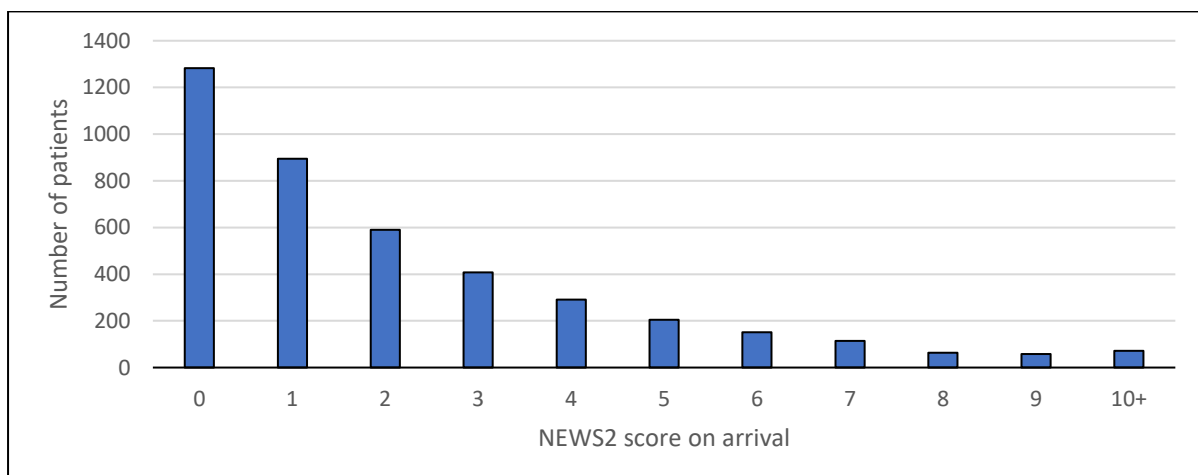67% of unplanned admissions had a NEWS2 of 0-2 on arrival (Figure 5).

Patient pathway

Assessing unplanned admissions (4605 patients), the majority of referrals to acute medicine were patients who attended via the emergency department (63%).

Table 1: Who referred patients to acute medicine?

	Source of referral		
	Emergency department	*Primary care*	*Paramedic*
wSAMBA24	**62.6%**	**20.2%**	**8.8%**
SAMBA23	61.0%	24.9%	5.5%
SAMBA22	67.6%	23.4%	3.0%
SAMBA21	70.0%	21.8%	3.0%
wSAMBA20	66.1%	25.9%	2.2%
SAMBA19	60.1%	28.1%	1.8%

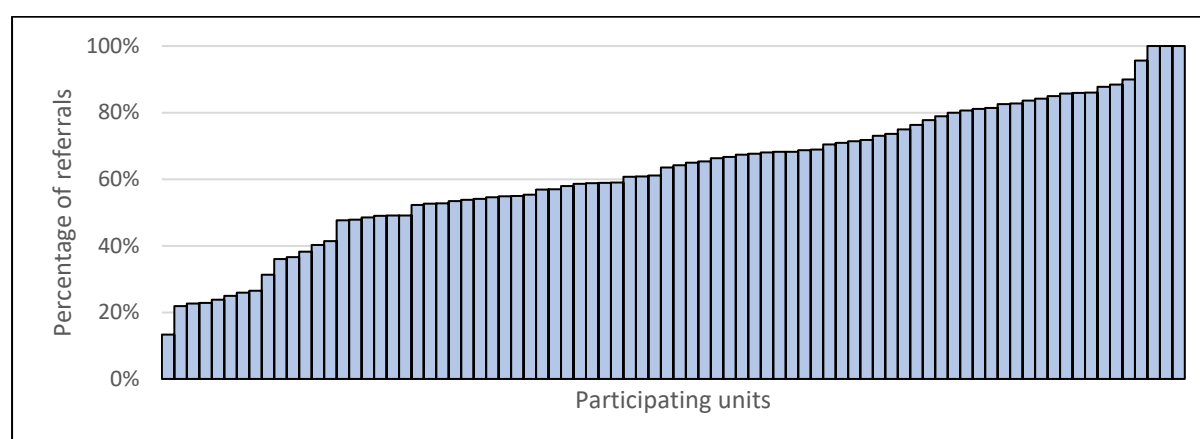*Note: Percentages do not equal 100% due to referrals from other sources.*

Figure 6: 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: two 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:

- 14% of patients arrived between midnight and 8am
- 77% arrived between 8am and 8pm
  - 25% between 8am and midday, 30% between midday and 4pm, 22% between 4pm and 8pm
- 10% 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.

61% of unplanned admissions (2760 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 7.
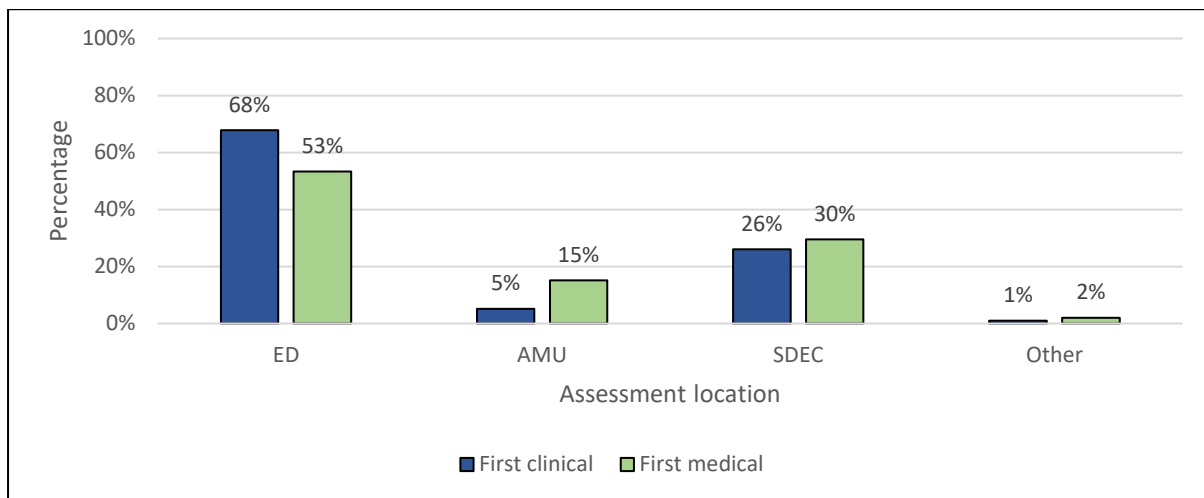
Figure 7: *Assessment location for unplanned admissions. Location of first clinical assessment and first assessment by the medical team. Patients who were scheduled to return excluded. ED: Emergency Department; AMU: Acute Medical Unit; SDEC: Same Day Emergency Care.*

Location of first medical team assessment

The location of the first assessment by a member of the medical team in also shown in Figure 7. 53% of patients had their first assessment by the medical team in the Emergency Department (SAMBA23: 48%; wSAMBA20: 41%).

Same Day Emergency Care

The percentage of patients (unplanned admissions) who received their medical team assessment in SDEC varied between units. Comparison between units is shown in Figure 8. Ten units (12%) didn't see any unplanned admissions in SDEC. A third or more of admissions were seen by the medical team in SDEC in 35.4% of units (SAMBA23: 35.5%). The age range of patients who had their assessment by the medical team in SDEC is shown in Figure 9.
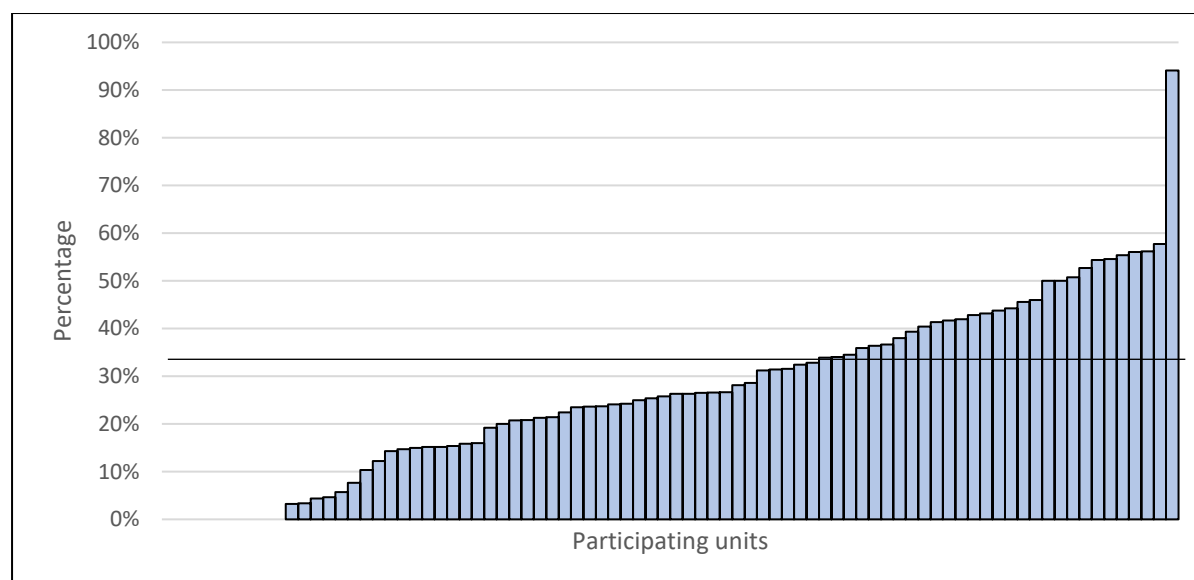
Figure 8: *Percentage of patients who received their first medical assessment in Same Day Emergency Care (SDEC). Units ranked along x-axis by percentage seen in SDEC. Target line at 33.3% based on recommendations for provision of Same Day Emergency Care (SDEC) from NHS Long Term Plan.[22]*

Figure 9: *Age distribution of the patients within each area (Emergency Department (ED), Acute Medical Unit (AMU) and Same Day Emergency Care (SDEC)). Age distribution based on location of first assessment by the medical team within each area: Unplanned admissions only.*

Clinical Quality Indicator Outcomes wSAMBA24

Clinical Quality Indicator 1: Early warning score within 30 minutes

73.1% of unplanned admissions had an early warning score recorded within 30 minutes of arrival to hospital (95% CI 71.8-74.4%). Individual unit performance is shown in Figure 10. Five units (6%) achieved this target for all patients.
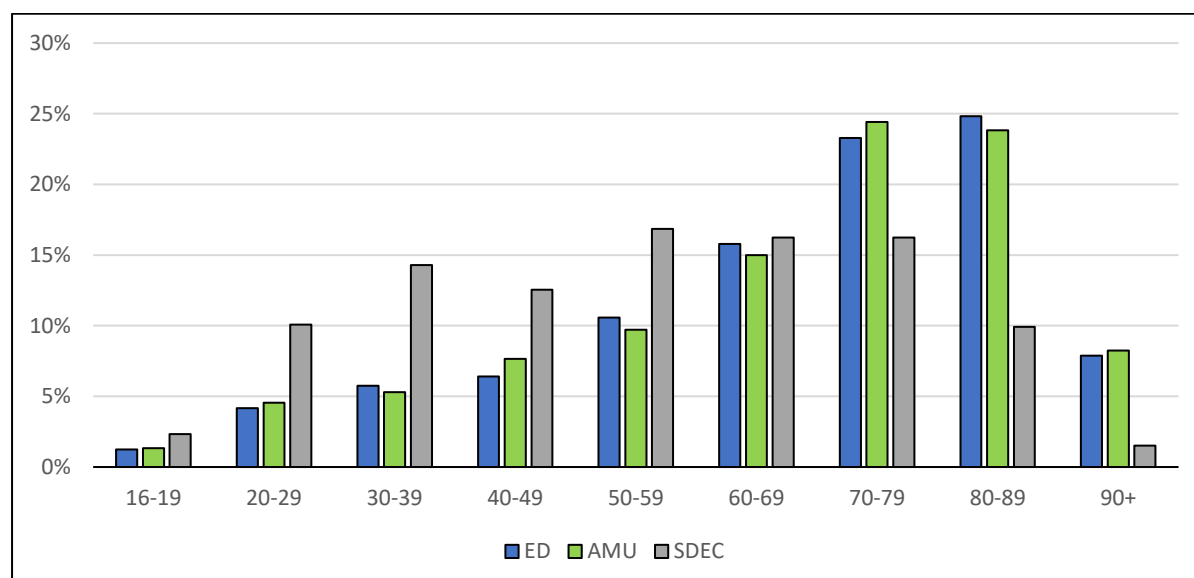
Table 2: Percentage of unplanned admissions meeting target of Early Warning Score measurement within 30 minutes of arrival to hospital, by initial assessment location

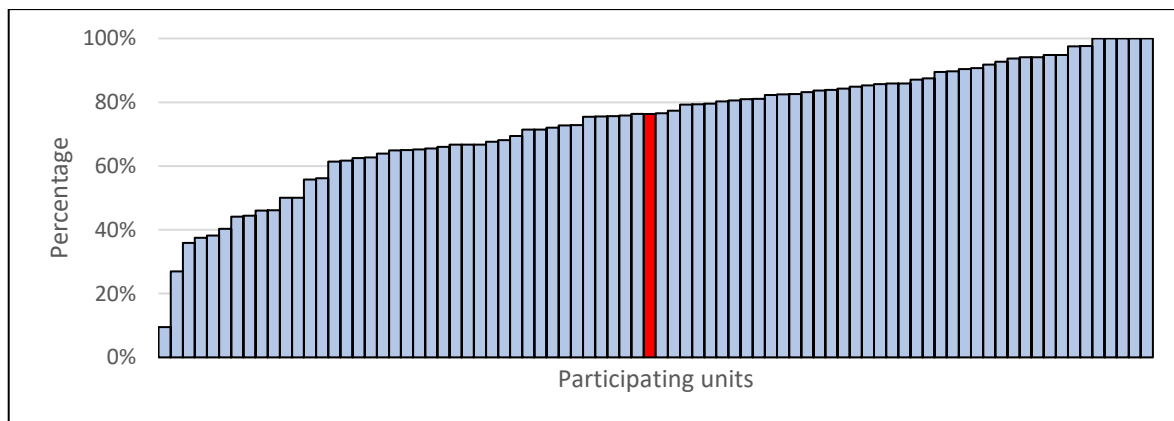| CQI 1	Location of initial clinical assessment			
Percentage achieving target	*ED*	*AMU*	*SDEC*	*Other locations*
wSAMBA24	**72.6%**	**75.4%**	**74.8%**	**55.8%**
SAMBA23	74.0%	73.4%	72.2%	61.3%
SAMBA22	67.9%	67.2%	73.3%	63.4%
SAMBA2021	78.4%	75.3%	82.3%	67.9%
wSAMBA20	75.7%	70.3%	76.9%	61.4%
SAMBA19	81.6%	80.0%	81.2%	78.3%

Figure 10: 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

78.8% of unplanned admissions were seen by a tier 1 clinician within 4 hours of arrival to hospital (95% CI 77.6-80.0%). This target was met by 81.7% in SAMBA23, and 84.4% in wSAMBA20.

Comparison of individual unit performance is shown in Figure 11. Three units (4%) achieved this target for all patients.

Table 3: Percentage of unplanned admissions meeting target of assessment by clinical decision maker within 4 hours of arrival, by initial assessment location

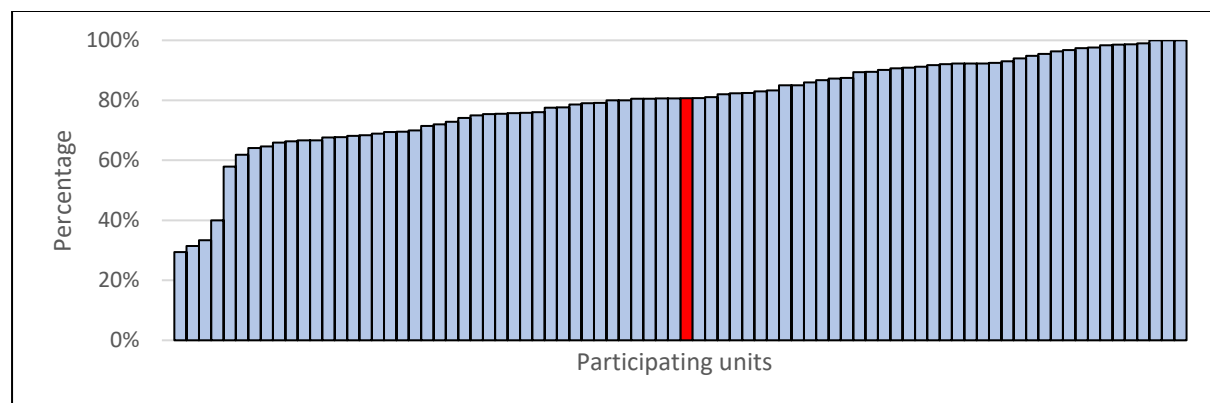| CQI 2	Location of initial clinical assessment			
Percentage achieving target	*ED*	*AMU*	*SDEC*	*Other locations*
wSAMBA24	**77.4%**	**80.5%**	**81.6%**	**70.0%**
SAMBA23	79.8%	76.6%	87.8%	86.7%
SAMBA22	76.1%	77.9%	88.6%	80.3%
SAMBA2021	86.4%	83.5%	93.9%	82.4%
wSAMBA20	83.7%	78.6%	91.8%	76.2%
SAMBA19	86.7%	81.9%	94.7%	n/a

Figure 11: 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; median unit performance highlighted in red.

Clinical Quality Indicator 3: Assessment by consultant within target time

Overall, 51.9% of unplanned admissions who required a medical consultant review were seen within the target time (95% CI 50.3-53.5%). This target was met by 52.9% in SAMBA23 and 61.9% in wSAMBA20. Comparison of individual unit performance is shown in Figure 12. No units achieved this target for all of their patients who required consultant review.

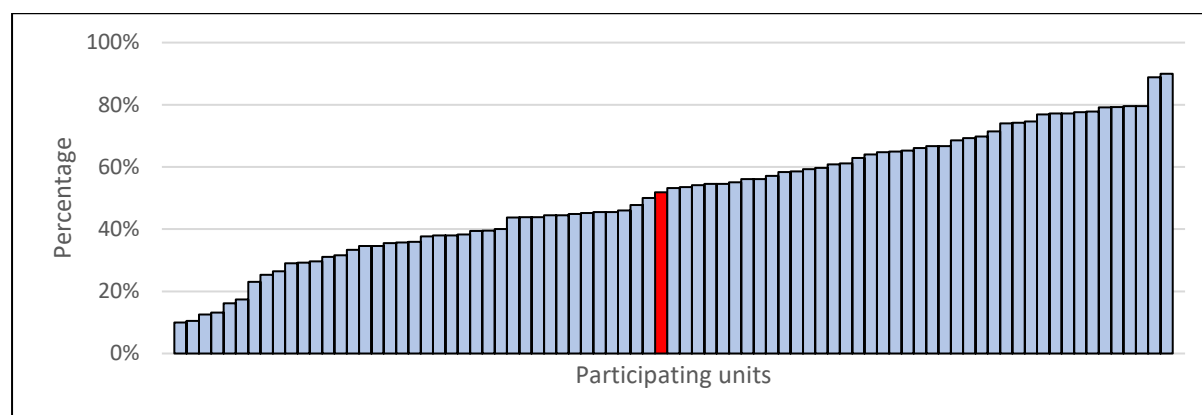15.4% of unplanned admissions did not require a consultant review (SAMBA23: 17%, wSAMBA20: 12.3%).

Figure 12: *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. Median unit performance highlighted in red.*

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*	*SDEC*	*Other locations*
wSAMBA24	**41.6%**	**65.9%**	**84.2%**	**40.0%**
SAMBA23	43.5%	60.8%	86.5%	63.2%
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

Time of day & Initial assessment location

Completion of clinical quality indicators depending on time of day are shown in Table 6.

Table 6: *Percentage of unplanned admissions where CQI achieved depending on arrival time and initial assessment location.*

Location of initial assessment				
	ED	**AMU**	**SDEC**	**Other**
CQI 1				
00:00-08:00	76.4%	71.4%	92.5%	66.7%
08:00-20:00	71.6%	76.3%	74.1%	54.8%
20:00-00:00	73.3%	71.4%	80.0%	50.0%
CQI 2				
00:00-08:00	72.3%	64.3%	40.0%	66.7 %
08:00-20:00	80.4%	80.4%	83.8%	67.9%
20:00-00:00	68.8%	89.3%	40.0%	83.3%
CQI3				
00:00-08:00	79.1%	85.7%	95.7%	66.7%
08:00-20:00	26.1%	61.4%	84.3%	29.2%
20:00-00:00	70.1%	85.2%	61.5%	100%

Note: Only 60 patients were seen in SDEC who arrived outside of daytime hours, and only 12 patients were seen in 'Other' locations who arrived outside daytime hours.

Completion of all indicators

All three CQIs were achieved within the target times for 35.2% of patients who required a consultant review (SAMBA23: 35.9%; wSAMBA20: 44.1%). Comparison of individual unit performance is shown in Figure 13.
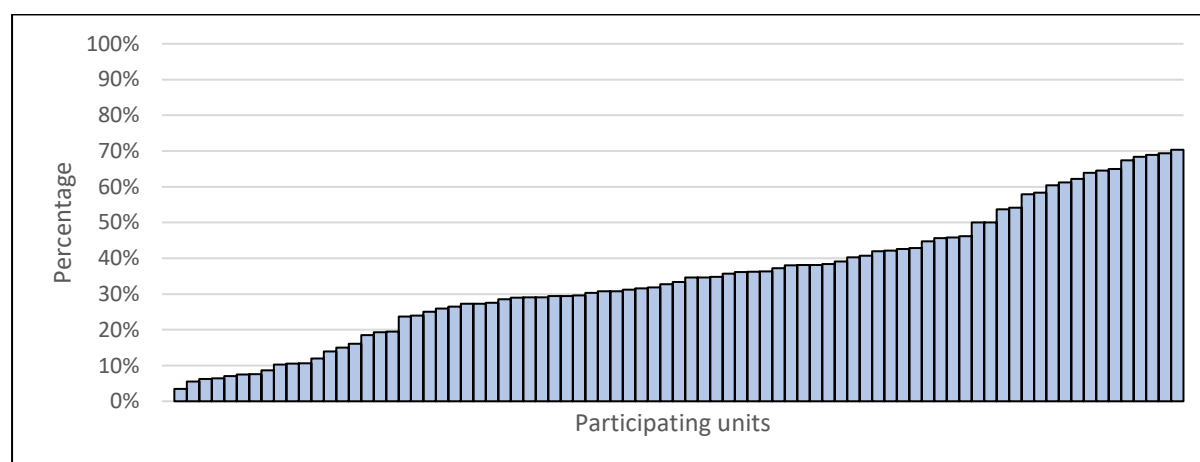

Figure 13: *Percentage of patients where all three CQIs were achieved, by unit. Units ranked along x-axis.*

Outcomes at seven days

Figure 14 shows patient outcomes at 7 days for all unplanned admissions.

38.6% of unplanned admissions were discharged on the day of arrival (SAMBA23: 32.8%). Of those that were discharged on the day of arrival, 66% had their initial clinician review in SDEC and 29% in the ED; 74% had their first medical team assessment in SDEC, 19% in the ED and 5.5% on AMU.
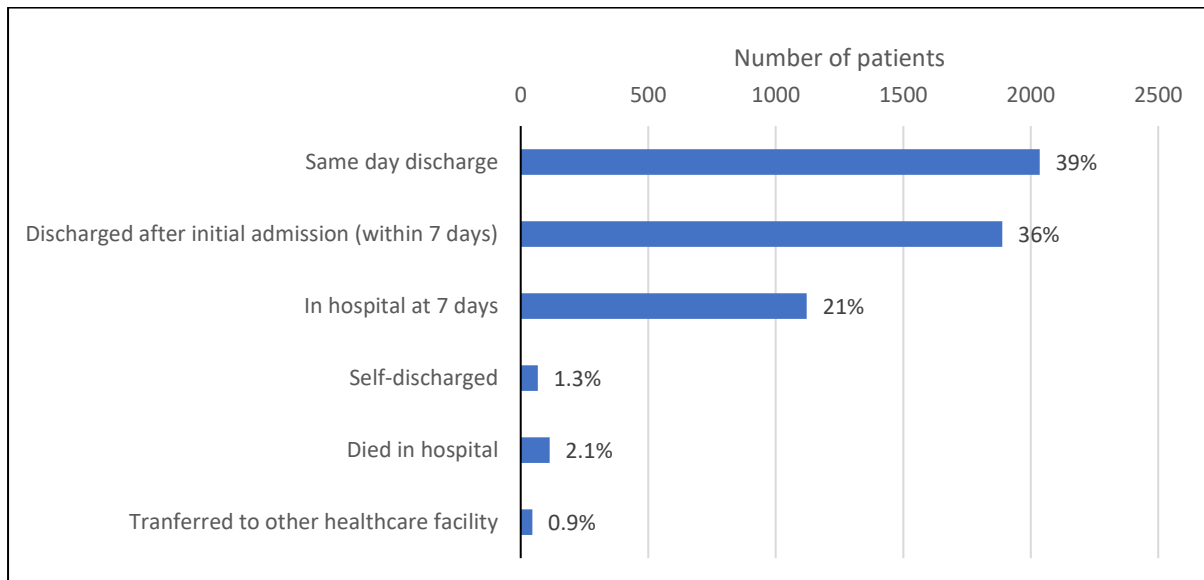

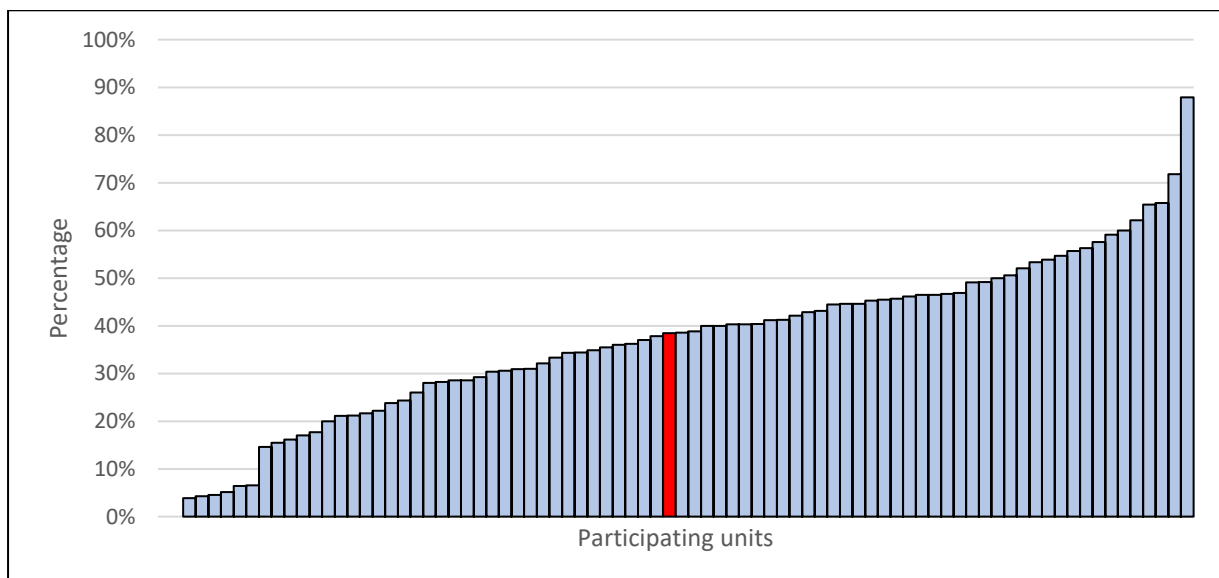*Figure 14: Patient outcomes at 7 days for unplanned admissions*

Figure 15: Percentage of patients discharged without overnight admission. Units ordered along x-axis. Median unit performance marked in red.

Summary & Discussion

What has wSAMBA24 shown?

Winter SAMBA24 provides a comparison against the key clinical quality indicators for acute medicine during winter, 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).

These results suggest that performance in winter was similar to that in recent summers, and lower than our last winter data collection in January 2020. We know from previous rounds of SAMBA that performance against the clinical quality indicators fell in summer 2022, and although it had improved overall in 2023, this was in part due to the increase in the proportion of patients seen through Same Day Emergency Care services. These results show that, year-round, there continue to be a significant proportion of patients that are not receiving the assessment they need within target times, as well as patients that are spending prolonged periods within the Emergency Department, shown by the high proportion of patients that receive their medical team assessment in the ED, outside of AMU and SDEC. The proportion of patients referred directly by paramedics appears to be increasing, with 8.8% of patients referred directly in Winter SAMBA24 compared to less than 2% in SAMBA19. This may reflect a change towards more direct access into acute medicine from paramedic services, and greater understanding of how these pathways can function effectively may be beneficial.

As always, there remain key areas for improvement to deliver care for our patients in the right place at the right time. The high volume of patients assessed by the medical team within the ED is reflective of, as well as contributing to, the crowding seen within EDs that worsens patient experience, and has been linked to increased mortality. Patients that arrive during daytime hours and are admitted to medicine via the ED are less likely to be seen by a consultant within target time than any other group; improving this pathway will require involvement and innovation from both acute medicine and emergency medicine. And although patients assessed in SDEC are more likely to receive clinician assessment and consultant review (if required) than those attending via other pathways, there are still more than 15% of patients assessed in SDEC who are not seen in target times. Focus on the lowest performing assessment pathways should not completely distract from a need to ensure that 'higher performing' areas, such as SDEC pathways, are meeting our quality indicators.

Limitations

Participation in wSAMBA24 was lower than in summer SAMBA23. This was expected, due to the extra work that is required to deliver SAMBA at each site. It may be that the units that anticipated that they would be under increased pressure and increased clinical workloads that would affect their ability to

participate in SAMBA, for example those hospitals unable to free up clinical staff for data collection and submission, were less likely to participate. In this case, the performance presented here is an overestimate, as the non-participating units facing increased workloads may have had lower performance against the clinical quality indicators.

There is an over-representation of English units within this data. As such, conclusions may be less applicable to the other nations of the UK. Unfortunately, the day of data collection for wSAMBA23 coincided with a day of resident doctor industrial action in Wales, which likely contributed to the lack of Welsh participating sites.

As SAMBA provides a snapshot of performance over 24 hours, there is likely to be variation in performance across time. Although the results suggest similar performance in summer and winter, the context of these results must be considered: this comparison is based on a 24-hour snapshot from each season. 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, for example by collecting data over longer periods, utilising electronic health record data.

As with previous rounds of SAMBA, there remains variation in performance between units as well as variation in how each centre structures its acute services. Further evaluations using an appropriate methodology are needed to understand the reasons for this variation, and how service structure may impact performance.

Next steps

The main focus of SAMBA remains assessment of performance against our clinical quality indicators. Further work is needed to understand how this performance is influenced by organisational factors that may be amenable to local change, such as specific service availability, and to outside factors, such as season. As discussed above, a greater understanding is needed of the variation we see in performance, both between hospitals, and across time within individual hospitals. Understanding how to measure, analyse and interpret performance at individual hospital sites will aid in the identification and implementation of service and quality improvement initiatives to improve patient pathways through acute medicine services.

References

1. Society for Acute Medicine. Clinical Quality Indicators for Acute Medical Units (AMUs). 2011.
2. National Institute for Health and Care Excellence. Emergency and acute medical care in over 16s: service delivery and organisation. 2018.
3. Royal College of Physicians. Acute medical care. The right person, in the right setting – first time. Report fo the Acute Medicine Task Force.; 2007.
4. Langlands A, Dowdle R, Elliott A, Gaddie J, Graham A, Johnson G, et al. RCPE UK Consensus Statement on Acute Medicine, November 2008. Br J Hosp Med (Lond). 2009;70(1 Suppl 1):S6-7.
5. Royal College of Emergency Medicine. Tip of the Icerberg: 12 hour stays in the Emergency Department. 2022.
6. Dowd A. Growing pressure on NHS threatens frontline services. BMJ. 2022;379:o2439.
7. Atkin C, Knight T, Cooksley T, Holland M, Subbe C, Kennedy A, et al. Performance of admission pathways within acute medicine services: Analysis from the Society for Acute Medicine Benchmarking Audit 2022 and comparison with performance 2019 - 2021. European journal of internal medicine. 2023.
8. The Royal College of Emergency Medicine. Emergency Department Infection Prevention and Control (IPC) during the Coronavirus Pandemic. 2020.
9. Public Health England. COVID-19: Guidance for maintaining services within health and care settings. Infection prevention and controlrecommendations. Version 1.2. 2021.
10. Atkin C, Knight T, Subbe C, Holland M, Cooksley T, Lasserson D. Response to winter pressures in acute services: analysis from the Winter Society for Acute Medicine Benchmarking Audit. BMC Health Services Research. 2022;22(1):17.
11. Nunan J, Clarke D, Malakouti A, Tannetta D, Calthrop A, Xu XH, et al. Triage Into the Community for COVID-19 (TICC-19) Patients Pathway - Service evaluation of the virtual monitoring of patients with COVID pneumonia. Acute Med. 2020;19(4):183-91.
12. Greenhalgh T, Knight M, Inada-Kim M, Fulop NJ, Leach J, Vindrola-Padros C. Remote management of covid-19 using home pulse oximetry and virtual ward support. BMJ. 2021;372:n677.
13. Faculty of Intensive Care Medicine. Enhanced Care: Guidance on service development in the hospital setting. 2020.
14. NHS England, NHS Improvement. Same-day emergency care: clinical definition, patient selection and metrics. 2019.
15. Society for Acute Medicine. Society for Acute Medicine Benchmarking Audit - SAMBA19 Report. 2020.
16. Atkin C, Knight T, Subbe C, Holland M, Cooksley T, Lasserson D. Acute care service performance during winter: report from the winter SAMBA 2020 national audit of acute care. Acute Med. 2020;19(4):220-9.
17. Atkin C, Knight T, Cooksley T, Holland M, Subbe C, Kennedy A, et al. Society for Acute Medicine Benchmarking Audit 2021 (SAMBA21): assessing national performance of acute medicine services. Acute Med. 2022;21(1):19-26.
18. Harris P, Taylor T, Thielke R, Payne J, Gonzalez N, Conde J. Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support. J Biomed Inform. 2009;42(2):377-81.
19. Harris P, Taylor R, Minor B, Elliott V, Fernandez M, O'Neal L, et al. The REDCap consortium: Building an international community of software partners. J Biomed Inform. 2019.
20. Royal College of Physicians. National Early Warning Score (NEWS) 2. 2017.
21. Holland M, Subbe C, Atkin C, Knight T, Cooksley T, Lasserson D. Society for Acute Medicine Benchmarking Audit 2019 (SAMBA19): Trends in Acute Medical Care. Acute Med. 2020;19(4):209-19.
22. Society for Acute medicine, Royal College of Physicians of Edinburgh. Standards for Ambulatory Emergency Care Report of a working group for Royal College of Physicians of Edinburgh and Society for Acute Medicine. 2019.

23. Knight T, Atkin C, Kamwa V, et al. The impact of frailty and geriatric syndromes on metrics of acute care performance: results of a national day of care survey. EClinicalMedicine. 2023;66:102278. Published 2023 Nov 1. doi:10.1016/j.eclinm.2023.102278

Acknowledgements

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
Arrowe Park Hospital	Wirral University Teaching Hospital NHS Foundation Trust
Barnet Hospital	Royal Free London NHS Foundation Trust
Birmingham Heartlands Hospital	University Hospitals Birmingham NHS Foundation Trust
Blackpool Victoria Hospital	Blackpool Teaching Hospitals NHS Foundation Trust
Calderdale Royal Hospital	Calderdale and Huddersfield 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
Country Hospital Hereford	Wye Valley NHS Trust
Cumberland Infirmary	North Cumbria Integrated Care NHS Foundation Trust
Diana, Princess of Wales Hospital	Northern Lincolnshire and Goole NHS Foundation Trust
Ealing Hospital	London North West University Healthcare NHS Trust
Eastbourne District General Hospital	East Sussex Healthcare NHS Trust
Epsom Hospital	Epsom and St Helier University Hospitals NHS 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
Good Hope Hospital	University Hospitals Birmingham NHS Foundation Trust
Harrogate District Hospital	Harrogate and District NHS Foundation Trust
Huddersfield Royal Infirmary	Calderdale and Huddersfield NHS Foundation Trust
Hull Royal Infirmary	Hull University Teaching Hospitals NHS Trust
Kettering General Hospital	Kettering General Hospital NHS Foundation Trust
King's Mill Hospital	Sherwood Forest Hospitals NHS Foundation Trust
Kingston Hospital	Kingston Hospital NHS Foundation Trust
Leighton Hospital	Mid Cheshire Hospitals NHS Foundation Trust
Leighton Hospital FEAU	Mid Cheshire Hospitals NHS Foundation Trust
Lincoln County Hospital	United Lincolnshire Hospitals NHS Trust
Lister Hospital	East and North Hertfordshire NHS Trust

Manchester Royal Infirmary	Manchester Hospitals NHS Foundation Trust
Medway Maritime Hospital	Medway NHS Foundation Trust
Milton Keynes University Hospital	Milton Keynes University Hospital NHS Foundation Trust
Norfolk & Norwich University Hospital	Norfolk & Norwich University Hospitals NHS Foundation Trust
North Devon District Hospital	Northern Devon Healthcare NHS Trust
Northampton General Hospital	Northampton General Hospital NHS Trust
Peterborough City Hospital	North West Anglia NHS Foundation Trust
Pilgrim Hospital Boston	United Lincolnshire Hospitals NHS Trust
Princess Alexandra Hospital	The Princess Alexandra Hospital NHS Trust
Princess Royal Hospital	Brighton & Sussex University Hospitals
Queen Alexandra Hospital	Portsmouth Hospitals University NHS Trust
Queen Elizabeth Hospital	The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust
Queen Elizabeth Hospital, Gateshead	Gateshead Health NHS Foundation Trust
Queen Elizabeth Hospital	University Hospitals Birmingham NHS Foundation Trust
Queens Hospital Burton	University Hospitals of Derby and Burton NHS Foundation Trust
Rotherham Hospital	The Rotherham NHS Foundation Trust
Royal Berkshire Hospital	Royal Berkshire Hospital NHS Foundation Trust
Royal Bolton Hospital	Bolton NHS Foundation Trust.
Royal Bournemouth Hospital - AMU	University Hospitals Dorset NHS Foundation Trust
Royal Cornwall Hospital	Royal Cornwall Hospitals NHS Trust
Royal Devon and Exeter Hospital	Royal Devon and Exeter NHS Foundation Trust
Royal Lancaster Infirmary	University Hospitals of Morecombe Bay NHS Foundation Trust
Royal Liverpool Hospital	Liverpool University Hospitals NHS Foundation Trust
Royal Preston Hospital	Lancashire Teaching Hospitals NHS Foundation Trust
Royal Shrewsbury Hospital	The Shrewsbury and Telford Hospital NHS Trust
Royal Surrey County Hospital	Royal Surrey NHS Foundation Trust
Royal United Hospital Bath	Royal United Hospitals Bath NHS Foundation Trust
Salford Royal Hospital	Salford Royal NHS Foundation Trust
Salisbury District Hospital	Salisbury NHS Foundation Trust
Scunthorpe General Hospital	Northern Lincolnshire and Goole NHS Foundation Trust
Southend University Hospital	Mid and South Essex NHS Foundation Trust
Southmead Hospital	North Bristol NHS Trust
St Helier Hospital	Epsom and St Helier University 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	Guy's and St Thomas' NHS Foundation Trust
Stepping Hill Hospital	Stockport NHS Foundation Trust

Stoke Mandeville Hospital	Buckinghamshire Healthcare NHS TrustTameside Hospital
	Tameside and Glossop Integrated NHS Foundation Trust
Tunbridge Wells Hospital	Maidstone and Tunbridge Wells NHS Trust
University Hospital Coventry & Warwickshire,	University Hospital Coventry & Warwickshire NHS Trust
University Hospital Southampton	University Hospital Southampton NHS Foundation Trust
Warrington Hospital	Warrington and Halton Hospital NHS Trust
Warwick Hospital	South Warwickshire NHS Foundation Trust
West Cumberland Hospital	North Cumbria Integrated Care NHS Foundation Trust
Wexham Park Hospital	Frimley Health NHS Foundation Trust
Whiston Hospital	St Helens and Knowsley Teaching Hospitals NHS Trust
York Hospital	York and Scarborough Teaching Hospitals NHS Foundation Trust

Northern Ireland

Royal Victoria Hospital, Belfast	Belfast Health and Social Care Trust
Ulster Hospital	South Eastern Health and Social Care Trust

Scotland

Dumfries and Galloway Royal Infirmary	NHS Dumfries and Galloway
Royal Infirmary of Edinburgh	NHS Lothian

Other

Jersey General Hospital

Nobles Hospital, Isle of Man

Fiona Stanley Hospital, Australia