

Society for Acute Medicine Benchmarking Audit

SAMBA18 Interim Report

A National Audit of Acute Medical Care in the UK

SAMBournemouth

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Conference Edition



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Welcome to SAMBA18

The 7th Society for Acute Medicine Benchmarking Audit (SAMBA18) provides a snapshot of the care provided for acutely unwell medical patients in the United Kingdom (UK) over a 24-hour period on Thursday 28th June 2018.

The report is written for the benefit of everyone involved in acute medical care, including healthcare professionals, commissioners of healthcare, 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 study and writing the report have provided their time voluntarily. Collecting data and running SAMBA in participating hospitals is a huge undertaking and therefore both the Society and SAMBA team extend a huge thank you to everyone who participated this year.

The only reason to undertake all this hard work is to improve the care we provide for patients. We hope we have gone some way to achieving our goal, although we know there is more work to do.

We look forward to hearing your views and having you joining us for future SAMBAs.

Executive Summary

SAMBA18 took place on Thursday 28th June 2017 with follow up data at 7 days.

Acute medical teams from 127 Acute Medical Units (AMUs) across the UK collected data relating to operational performance, clinical quality indicators and standards from NHS Improvement.

Data was collected from 6114 patients.

Key Findings

Structure and staffing of AMUs

- AMUs had a median of 39 beds, with 8.9% of AMUs having level 2 HDU beds
- 24.2% of hospitals have a separate admission process for older patients with frailty and complexity
- 60% of AMUs do not have social workers and 45% do not have advanced nurse practitioners
- 21.8% of AMUs have physician associates.

Patients

- 6% of patients were living in care homes
- 28.5% of patients were aged 80 years or older
- 20.4% of patients were in hospital within the previous 30 days

Flow of patients through Acute Medicine

- 60.3% of patients were referred by the Emergency Department (ED) and 31.7% by a General Practitioner
- 20.1% of patients were initially seen in Ambulatory Emergency Care (AEC)

- AEC units sent home 79.5% of the patients they assessed.

Performance against Clinical Quality indicators

- CQI 1: 84.1% of patients had their first NEWS measured within 30 minutes of arrival in hospital
- CQI 2: 91.4 % of patients were seen by a competent clinical decision maker within four hours of arrival in hospital.

Outcomes at 7 days

- 2% of patients died
- 23.2% of patients were in hospital
- 72.2% of patients were discharged back to their place of residence.

The future of SAMBA

SAMBA needs to move beyond a 24-hour time period to generate longitudinal data that can deliver a more precise estimate of performance of acute medical teams. These teams are increasingly multidisciplinary and work across the ED, AMU and AEC.

In addition, SAMBA needs to provide data from acute care delivery at times of intense and sustained pressure during winter months. This will require a change in the data collection mechanism and increasing use of electronic health records. This will provide accurate time data and minimise the impact on teams on the ground during periods of very high activity.

1 Setting the Scene

Introduction

In this Conference Edition of the SAMBA18 Report we summarise the interim analysis of this year's audit results. We will publish the full report later in 2018.

We know that not all delegates attending SAMBournemouth are familiar with Acute Medicine or SAMBA. Hopefully the following few paragraphs will demystify the process.

Acute Medicine

Acute Medicine is defined as that *'part of general internal medicine (GIM) concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within, hospitals, requiring urgent or emergency care'*.¹ Acute Medicine differs from other medical specialties as it is not based on a body system, disease or patient characteristic, such as age. A rich description of the specialty can be found in the Royal College of Physicians of London (RCP) web resource Medical Care.²

In very simple terms, Acute Medicine is the care process for unwell adults (usually age 16 years and above) who attend hospital with a medical (non-surgical) condition.

The term Acute Internal Medicine (AIM) was first used to describe the specialist training programme for Acute Physicians. This training pathway has been available since 2009. The term AIM is used synonymously with Acute Medicine

Patients presenting to Acute Medicine show wide variation in terms of age and social background, as well as the type and severity of their illness. The challenge for Acute Medicine is to provide a range of high-quality services to such a varied

group of patients. Acute medical care must be timely, organised, well-led and delivered by the right staff. The core processes are:

- Initial assessment by a competent clinician
- Early review by a senior clinician (consultant)
- Diagnosis, with early access to diagnostic tests
- Assess illness severity/physiological instability
- Stabilise unwell patients / resuscitation
- Care delivery by a multidisciplinary team (MDT) in a dedicated AMU.

Since the first units were created in the 1990s the specialty has expanded significantly, with around 225 AMUs across the UK. Acute Medicine has now spread outside the UK, most notably to the Republic of Ireland, the Netherlands, Australia, Singapore and Malaysia. *Colleagues from outside the UK are welcome to join us for SAMBA19.*

The Society for Acute Medicine

Currently SAM has 1278 members, including 544 consultants, 521 trainees and 213 colleagues from the multidisciplinary team or non-trainee doctors.

SAM has many roles:

- Promote education
- Encourage and support the MDT
- Facilitate and co-ordinate the collection of data relevant to acute medical assessments and admissions, including SAMBA
- Facilitate collaborative research
- Promote the creation of appropriate environments for acute medical care
- Share good practice
- Work collaboratively with other organisations
- Promote acute care models that exist to improve the care of patients
- Organise twice yearly fully accredited CPD.

2 SAMBA

The Society for Acute Medicine Benchmarking Audit (SAMBA) provides a comprehensive snapshot of the delivery of care in Acute Medicine. The audit is conducted over a 24-hour period in June each year. SAMBA is recognised within the UK as providing a global assessment of the care provided for adult patients who present to hospital

Founding Aims and Objectives

1. To provide a national audit of care delivered on AMUs against standards set out by the Society for Acute Medicine in 2011, known as Clinical Quality Indicators for AMUs (CQIs) (Figure 2.1)³
2. To enable individual AMUs to benchmark their performance against other contributors, identify areas of good practice, which might be shared, or where improvement is required.

Progress in the First Six years

This year was the largest SAMBA ever (Figure 2.2). The depth of data collected in the audit affords us insight into other aspects of Acute Medical care to interpret performance on the CQIs, including:

- A detailed understanding of the route into and from AMU
- Information to capture the diversity of units
- Staffing levels
- The influence of ambulatory emergency care
- The contribution of consultant Acute Physicians to the medical take.

Disseminating SAMBA Data

Results are used to inform contributors of their individual unit's performance against the CQIs. Unit Reports have evolved to compare outcomes against anonymised results from other participating units, thus providing direct benchmarking. In addition, the national picture

is analysed. In previous years there have been several publications in peer reviewed journals,⁴⁻¹⁰ presentations at SAM conferences and National SAMBA Reports.¹¹⁻¹²

Your Hospital

Joining this audit is voluntary for Acute Medical Units (AMUs). You can see if your hospital has taken part from the list of participants in the Appendices. If they did participate, they will be given a bespoke report later this year.

SAMBA Organisation & Methods

SAMBA is planned and run by the SAMBA Academy. Membership of the Academy is open to all SAM members. For SAMBA18, the Academy met in November 2017 and February 2018 (Appendix 3).

How?

SAMBA18 was promoted via e-mail to all SAM members, the Society newsletter and at our spring conference in Amsterdam (May 2018).

Units were asked to register via an online portal. To assist units in running SAMBA18, there was a dedicated e-mail and supporting documents:

- 1 [Study protocol](#)
- 2 [How to guide](#)
- 3 [Caldicott approval](#)
- 4 [Unit data](#)
- 5 [Patient Masterlist](#)
- 6 [Unified data collection tool](#)
- 7 [Frequently asked questions](#)

Who and When?

Recruitment to SAMBA18 was open to all hospitals in the UK receiving acutely unwell medical patients. Non-acute and community hospitals were excluded from participating. The AMUs in participating hospitals were asked to register with their local audit office and Caldicott Guardian. The audit took place on Thursday June 28th 2018 between 00:00 to 23:59.

Data Collection

Patient data was anonymised on entry to an online portal. Units were advised to:

1. Collect raw data on paper for future reference, before uploading to the online portal.
2. To securely store anonymised raw data and a Masterlist of study codes, the later stored securely and independently from the raw data.

There were two questionnaires:

1. Data regarding the staffing and structure of participating units
2. Patient related data

As well as the CQIs, acuity of illness was assessed using the National Early Warning Score (NEWS)¹³

Table 1 CQIs for Acute Medical Units³

1. All patients admitted to AMU should have an early warning score measured upon arrival
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
3. All patients should be reviewed by the admitting consultant physician or an appropriate specialty consultant physician within 14 hours of arrival on AMU**
4. All AMUs should collect the following data:
 - Hospital mortality rates for all patients admitted via AMU
 - Proportion of admitted patients who are discharged directly from AMU
 - Proportion of patients discharged from AMU and readmitted within 7 days of discharge

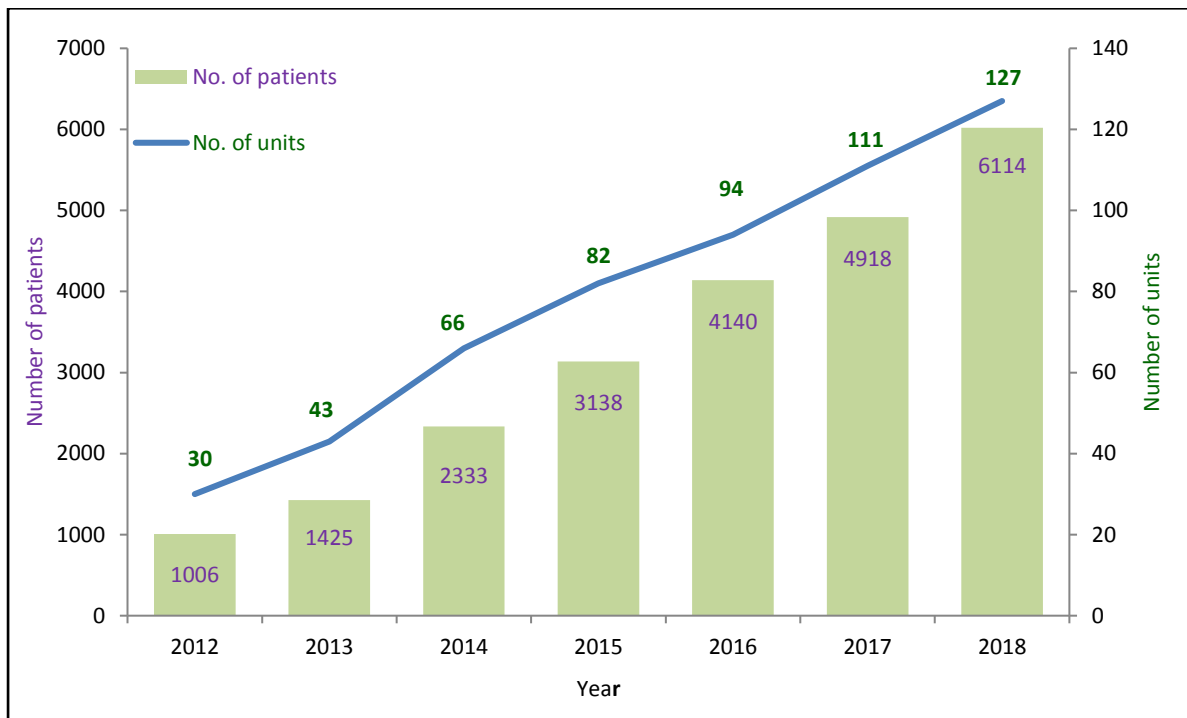
**In most cases, clinical assessment and initiation of a management plan should be undertaken in much less time, and prioritised in accordance with clinical need.*

***Consultant review for patients arriving on AMU between 08.00-18.00 should usually be undertaken within 8 hours of the patient's arrival on AMU with provision for earlier review according to clinical need*

Other targets from NHS Improvement include:

All acute admissions: patients should have a consultant approved care plan within 12 hours

Figure 1 Number of Patients and Participating Units



For SAMBA18 time zero was taken as the time of arrival to hospital (ED, AMU or other ports of entry, Figures 2.3 and 2.4). The original CQIs were created based on the basis that the majority of acute medical referrals would be directly to AMU. However, several years of SAMBA data have shown that the majority of medical admissions start their patient journey in ED. Furthermore,

many medical patients will not reach the AMU, they may be discharged from ED or redirected to AEC. SAMBA18 measures performance from the moment a patient arrives at hospital. This is a more robust measurement of the quality of care provided by a hospital its patients. The CQIs measured in SAMBA18 are shown in Figure 2.3.

Table 2 CQIs reported in this interim analysis of SAMBA18

<p>Clinical Quality Indicator 1 Compliance defined as a full set of physiological observations within 30 minutes of arrival in hospital</p>
<p>Clinical Quality Indicator 2 Compliance defined as time to see a competent clinical decision maker measured from the time of arrival at hospital to the time of the first contact in the ED or AMU</p> <p>The competent clinical decision maker is synonymous with the person performing the first medical assessment (clerking). For SAMBA18 we took this as an ACP (Advanced Care Practitioner), PA (Physician Associate) or any grade of doctor from Foundation Year 1 to Consultant</p>

3 Structure & Staffing of Acute Medical Units

In SAMBA18, 127 units submitted data describing their hospitals and acute trusts, structure, staffing and patient level data.

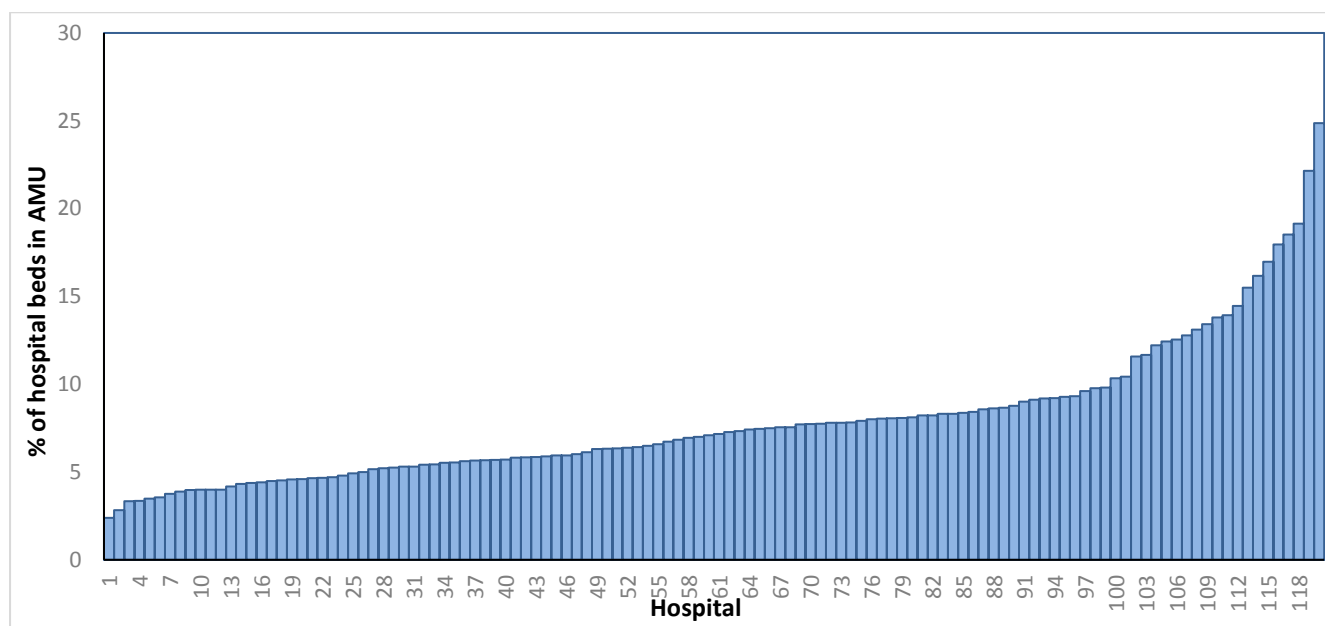
In Chapters 3 & 4 data is quoted for complete data sets and hence denominators may vary.

SAMBA17 results are shown in light grey

AMU Structure

- All hospitals had an AMU
- There was wide variation in AMUs across the UK, both in terms of size and structure
- The median number of total hospital beds was 546, range 94-1700 SAMBA17: 529 beds
- The median number of AMU beds was 39, range 10-93 SAMBA17: 36 beds
- 40.3% of hospitals had a separate Short-Stay Ward with median 24 beds, range 6-70 SAMBA17: 45.5% hospitals, median 23 beds
- 48.3% of hospitals had an Acute Frailty Unit SAMBA17: 43.2% hospitals
 - 71.7% were separate from AMU SAMBA17: 57.9%
 - 28.3% were co-located within AMU SAMBA17: 42.1%
- 79.8% of hospitals had a Surgical Assessment Unit SAMBA17: 84.0%
- 85.9% were separate from AMU SAMBA17: 86.7%
- 14.1% were co-located with AMU SAMBA17: 13.3%
- 24.2% of hospitals had a separate admission process (take) for older patients (Geriatric Medicine) SAMBA17 25.8%
 - 43.3% on age-based criteria SAMBA17: 44.1%
 - 33.3% on needs-based criteria SAMBA17: 38.2%
 - 23.3% used a combined age and needs, including younger patients on a case-by-case basis SAMBA17: 17.6%
- 8.1% of hospitals units had Level 2 high dependency unit (HDU) beds on AMU SAMBA17 (8.3%)
 - Within these AMUs, median of 7 beds, range 3-14 SAMBA17: 5
- There was a variation in the proportion of total hospital beds that were dedicated to the AMU. A median of 7.1% of total beds were in AMUs (range 2.4%-24.9%) (Figure 3.1) SAMBA17: 7.0%

Figure 2 The Variation in % of Total Hospital Beds Dedicated to the AMU



Ambulatory Emergency Care (AEC)

- 103 hospitals had an AEC service as part of acute medicine (83% of total hospitals, 95.3% of hospitals submitting complete data for this question)

SAMBA17: 119 (90.8%) hospitals

- The majority of AEC units use a combination of trolleys, chairs and separate clinic rooms (Figure 3.1).
- The median number of trolleys and chairs per unit was 8 (range 1 - 54)

The median number of clinic rooms per unit was 3 (range 1 - 9)

Table 3 Clinical Areas in AEC units

	% of AEC units
Trolleys/Chairs Only	16%
	12.6%
Clinic Rooms Only	1%
	4.2%
Both Trolleys/Chairs and Clinic Rooms	81%
	81%
Flexible Beds on AMU	6%
	8.4%

- 68% of AEC units SAMBA 17: 62.2% were separate from AMU
- 49.6% (46.8%) of hospitals had access to speciality 'hot' clinics

AMU Staffing

- The median time at which the last consultant left the AMU was 21:00 (earliest 17:00, latest 23:00)
- 45% of AMUs do not have Advanced Nurse Practitioners
- 21.8% of AMUs have Physician Associates
- 40% of AMUs have access to a social worker
SAMBA17: 36.4%

Table 4 Composition of Daytime AMU Medical Team at 11:00

	Median (range) SAMBA17
Consultant	3 (0-8) 3
Specialist Trainee	1 (0-4) 1
Core Trainee	2 (0-10) 2
Foundation Year 1	2 (0-9) 2

**Table 5 Composition of AMU Team
Numbers Shown as Median (Range) SAMBA17**

Time of day (hrs)Time	11:00	19:00	03:00
Matron/Ward Manager	1 (0-3) 1	0 (0-2) 0	0 (0-1) 0
ANP	1	0 (0-5)	0 (0-4)
Ward Sister	2 (0-7) 2	2 (0-6) 1.8	1 (0-6) 1
Staff Nurse	7 (3-32) 7	7 (3-32) 7	6 (2-26) 6
Pharmacist	2 (0-6) 2	0 (0-2) 0	0 (0-1) 0
Physician Associates	0 (0-3)	0 (0-3)	0 (0-2)
Physiotherapist	1 (0-4) 1	0 (0-3) 0	0 (0-1) 0
Occupational Therapist	1 (0-4) 1	0 (0-3) 0	0 (0-1) 0
Social Worker	0 (0-3) 0	0 (0-3) 0	0 (0-0) 0

4 Patients and Outcomes

Patient and Admission Data

- Data was collected from 6114 patients
SAMBA17: 4918 patients
- 52.4% patients were female SAMBA17 53%
- 28.5% of patients were aged 80 years and above (Figure 4.1) SAMBA17 30%

Admission to Hospital

- Units registering for SAMBA18 assessed a median of 45 patients (range 4-107)

Where were patients residing prior to hospital?

- Own home 92.5% SAMBA17: 87.6%
- Care home 6% SAMBA17 6.2%
- Another hospital 1.5% SAMBA17: 1.3%

Who referred the patient to Acute Medicine?

- ED 60.3% (unit median 62%, interquartile range 50-74)
SAMBA 17 58.4%
- GP/Primary Care 31.7% (unit median 27.5%, interquartile range 16-42) SAMBA17 30.2%
- Paramedic direct referral 1.4% SAMBA17: 1.9%
- Own Hospital 5.3% (2.6% from out-patients, 2.7% elsewhere) SAMBA17: 2.1%

Where was the first Acute Medicine assessment?

- 60.0% in ED SAMBA17: 33%
- 20.1% in AEC SAMBA17: 16.5%
- 19.5% in AMU SAMBA17: 41%
- 1.4% in other locations
- 19.1% of patients admitted through ED went direct to a medical ward or medical outlying ward, bypassing AMU.
- 51.9% of patients had multiple clerkings

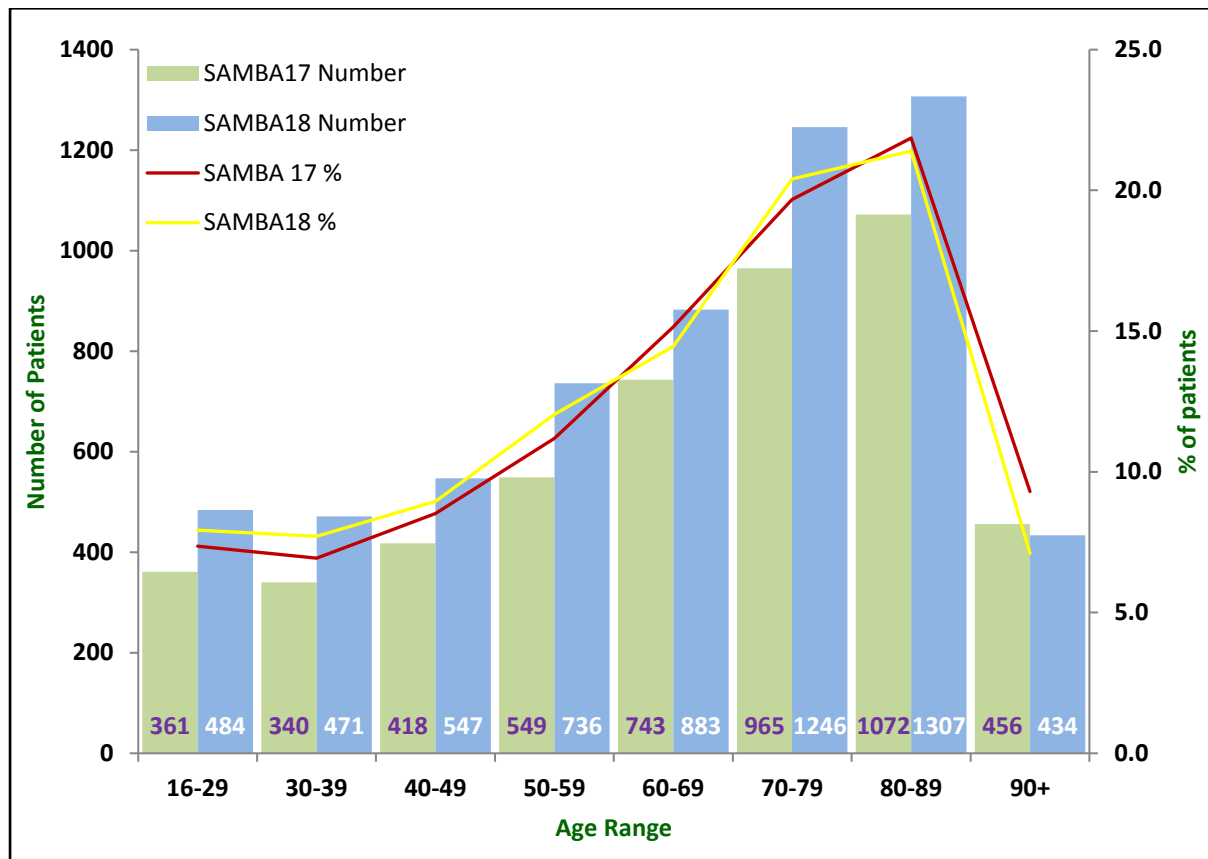
What were the same day discharge rates from the different initial assessment locations?

- 5.6% from ED
- 20.1% from AMU
- 79.5% from AEC
- 9.1% of patients were discharged prior to consultant review 9.9% in SAMBA 17

Readmissions

- 20.4% of patients had been in hospital in the 30 days prior to assessment on SAMBA day
SAMBA:17: 12% SAMBA16: 13%

Figure 3 Age Distribution of SAMBA17 and SAMBA18 Patients



CQI Outcomes SAMBA18

Table 6 Overall Success in Achieving CQIs

<p>Clinical Quality Indicator 1 All patients should have their NEWS measured within 30 minutes of arrival. Compliance defined as a full set of physiological observations within 30 minutes of arrival in hospital 84.1% of patients had their first NEWS within 30 minutes of hospital arrival 83% in SAMBA 17</p>
<p>Clinical Quality Indicator 2 All patients should be seen by a competent clinical decision maker within four hours of arrival on the AMU. Compliance defined as time to see a competent clinical decision maker measured from the time of arrival at hospital to the time of the first contact in the ED or AMU 91.4% of patients were seen within 4 hours of arrival in hospital 65% in SAMBA 17</p>
<p>Composite end-point for CQIs 1,2 76.1% of patients received both standards</p>

Table 7 Attainment of CQIs by Initial Assessment Location Percentage of Patients (% SAMBA 17)

	ED	AMU	AEC
CQI 1	84.9% (83%)	85.4% (83%)	82.1% (85%)
CQI 2	91.4% (59%)	88.9% (68%)	94.5% (85%)
Composite CQIs 1,2	77.2%	75.1%	75.7%

Acuity of Illness

- Acuity at presentation was assessed using the National Early Warning Score (NEWS) (Figure 4.2)
- The median NEWS on arrival was 1 [IQR 0-3],
- Patient outcomes are shown by NEWS (Figure 4.3)
- After initial assessment
 - 23 patients were transferred to ICU
 - 28 to HDU
 - 34 to acute stroke unit
 - 69 to CCU.

Figure 4 Distribution of NEWS SAMBA18 and SAMBA 17

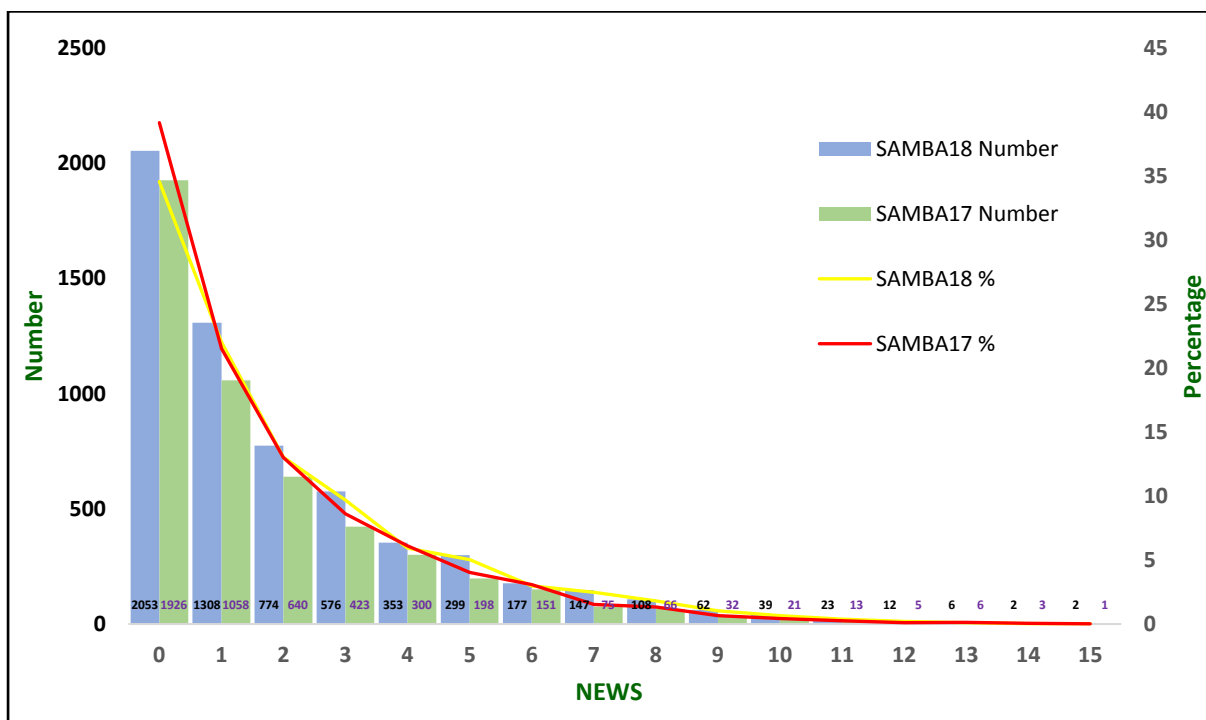


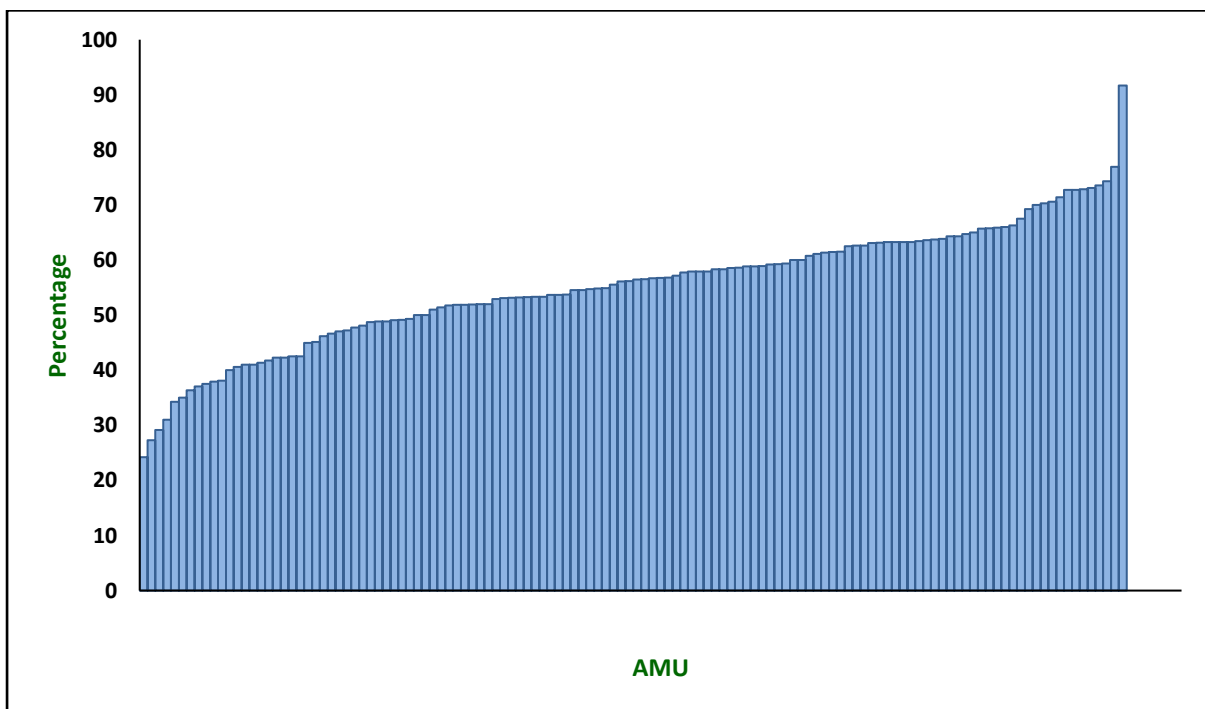
Table 8 Percentage of Patients with Vital Status Outcomes at 7 days

Alive in hospital	23.2%
Died	2.0%
Discharged from hospital	72.2%
Transferred to another Hospital	1.3%
Self-discharged	1.3%

Table 9 Patient Outcomes at 7 days by NEWS (Percentage of Patients)

NEWS	Died in hospital	Alive in hospital	Medically discharged	Self-discharged	Transferred
0 to 3	0.8	20.8	75.7	1.3	1.4
4 to 6	3.6	33.5	61.5	0.8	0.6
7 to 9	8.7	37.0	51.7	1.3	1.3
10 +	28.8	36.3	25.0	5.0	5.0

Figure 5 Percentage of low risk admissions per unit defined as NEWS < 2



Ambulatory Emergency Care (AEC)

- 23% of units did not see patients in a dedicated AEC for their first assessment.
- 65.3% (SAMBA17 58.6%) of units undertook 10% or more of their total initial assessments on AEC
- 46.5% (SAMBA 17 35.1%) of units undertook 20% or more of their total initial assessments on AEC
- The median percentage of total patients initially assessed on AEC was 18.1 % (SAMBA17 16.5%)

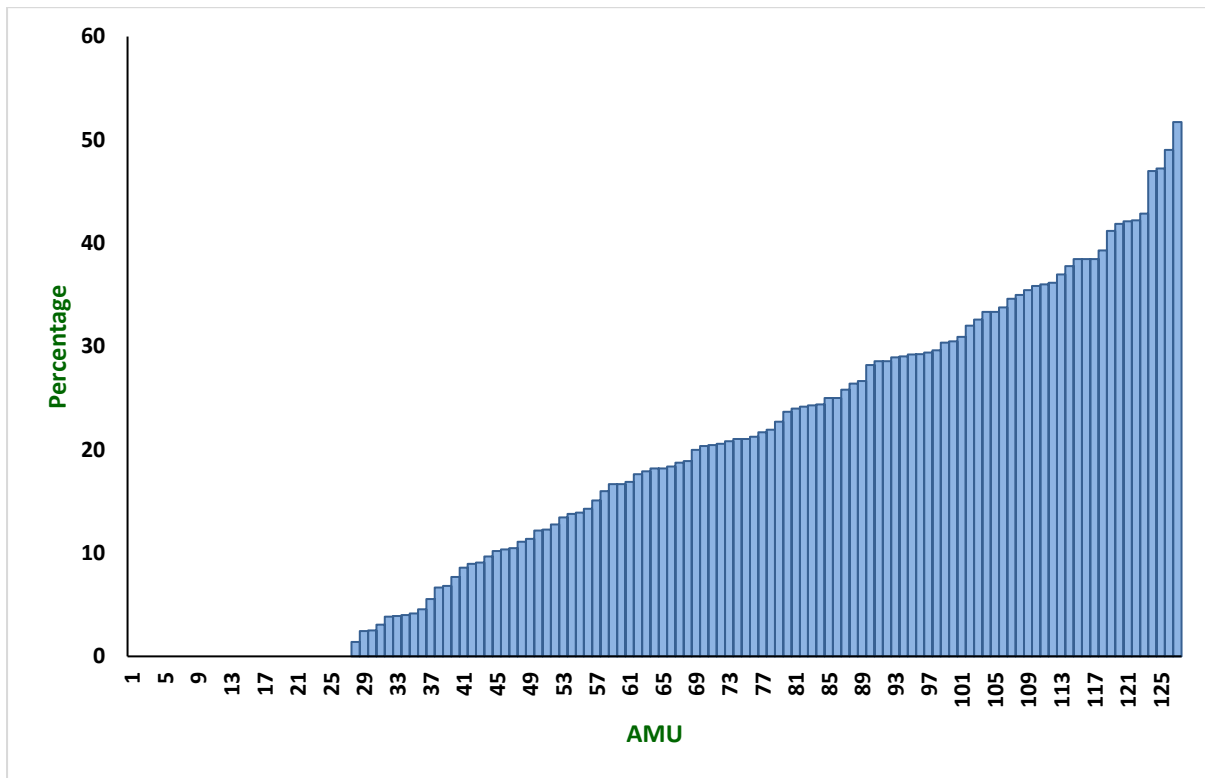
- 32.7% of patients were 70 years or older
- 83% (SAMBA17 93.5%) of patients had a NEWS of less than 2
- 1.4% of AEC patients (SAMBA17 3.1%) had a NEWS of 5 or more.

7-day outcomes among AEC patients

- 20.5% of patients were admitted for in patient care.
- 4.7 % of patients initially seen in AEC were in hospital at 7 days after initial assessment (91.6% were at home)
- 0.2% of patients died in hospital.

Demographics of patients who came to AEC

Figure 6 Variation in Percentage of initial medical assessments undertaken in AEC



5 Summary & Discussion

What has SAMBA18 shown?

This is an interim report from the initial analysis of the SAMBA 18 data, with a more detailed report to come later in the year. Nevertheless, there are some important observations which are clear. The increase in the number of patients with acute medical needs is accelerating. This year we had 14% more units taking part but 25% more patients in total. In spite of this, the times to EWS and initial competent decision maker were met or improved compared with last year which is impressive. Overall mortality at 7 days is low and three quarters of all patients are discharged by this time point as well.

The patient cohort is becoming more complex. 20% of patients who were seen by teams in SAMBA 18 were in hospital 30 days previously, with large variation between hospitals. Whilst we can speculate about the reasons for this variation, it shows that the work of acute medicine is not carried out in isolation – there is an impact of community medical activity and prior hospital activity on the acute front door.

There has also been an increase in the proportion of the acute take that is assessed through ambulatory care. This cohort is being well selected as evidenced by the low rate of conversion to admission and the very low rates of death or need for in patient care at 7 days.

Our preparations this year for SAMBA demonstrated the difficulties in matching an appropriate consultant review time with the changing constraints in day to day acute medical care (we were also mindful of the data collection burden and difficulty in validating time data). Many patients are seen by medical teams in ED and so a 'time to review' that starts on AMU doesn't capture a critical time in the patient journey. There are also different time standards for consultant review depending on time of day, NEWS and a time standard for a consultant

approved care plan – some of these contradict each other and more work is needed to get a set of clear measures that are clinically meaningful and simple to collect, however well they are initially achieved.

Efficiency and the ED Interface

Over half of the patients in this year's SAMBA had multiple clerkings, reflecting the high proportion of the medical take that is referred from ED. This represents an opportunity for innovation in assessment to streamline the collection and recording of healthcare data, and is already a focus for change in several units.

The future for SAMBA

One of the major limitations of SAMBA is that it is a single day of care survey, and performance can be influenced by many factors that are outside the control of the acute medical team on that day. A stable assessment of performance over time is a fairer reflection of the impact of local structures and processes on performance measures, but this is hard to collect given the human resource implications of the current SAMBA data collection platform. Furthermore, learning about the performance of the acute care 'system' during periods of relentless and intense pressure, and how to improve it, is an extremely high priority in healthcare policy and practice. SAMBA should deliver answers in winter as well as summer and for longer periods of time to estimate 'true' performance.

We have been exploring different methods to take this forward through SAM Council and through national audit bodies (RCP and HQIP) so that SAMBA can help acute hospital trusts as well as their clinicians and patients.

There is significant research potential with SAMBA that we are also exploring through a change in the governance of SAMBA data. This

will give AIM trainees opportunities to undertake projects and help grow the research community within acute medicine.

There is also an opportunity for international partners to contribute data and form a platform for joint learning from how acute medicine is delivered in other health systems.

We look forward to discussing this with you at SAM Bournemouth so that the plans for SAMBA are shaped by all in the Society for Acute Medicine.

Appendix 1 Glossary of Terms & Abbreviations

Abbreviations

AEC	Ambulatory Emergency Care	ED	Emergency Department
AIM	Acute Internal Medicine	ICU	Intensive Care Unit
AMU	Acute Medical Unit	MDT	Multi Disciplinary Team
ANP	Advanced Nurse Practitioner	NEWS	National Early Warning Score
CCOT	Critical Care Outreach Team	RCP	Royal College of Physicians of London
CCU	Coronary Care Unit	SAM	Society for Acute Medicine.
CFS	Clinical Frailty Score, also referred to as the 'Rockwood score' ¹⁴	SAMBA	Society for Acute Medicine Benchmarking Audit
CPD	Continuing Professional Development	SSW	Short Stay Ward,
CQI	Clinical Quality Indicator		

Terms Relating to Acute Medicine

Acuity

This is a measure of how unwell patients are. In SAMBA18 this is assessed with the NEWS.

Acute Medicine

This is discussed in detail on page 6. In simple terms, Acute Medicine is the care process for unwell adult patients (usually age 16 years and above) who attend hospital with a medical (non-surgical) condition.

Acute Internal Medicine

This is the specialism that medical trainees enter if they want to become Acute Physicians. This training pathway has been available since 2009. The term AIM is sometimes used synonymously with Acute Medicine

Acute Medical Unit

The area of a hospital where Acute Medicine is based, sharing many similarities with a traditional hospital ward.

Acute Physician

A doctor who specialises in, and is dedicated to, the practice of Acute Medicine. In addition, physicians from other specialties contribute to the care of acutely unwell medical patients, including participating in the admission process or 'medical take'.

Ambulatory Emergency Care

This is described in detail on page 21. AEC provides care for patients with acute medical problems but in an outpatient setting. Patients are selected for AEC by their condition and physiological stability. AEC provides the same level and standard of care as patients admitted to hospital but with the advantage of getting patients home more quickly.

Medical Patient

A medical patient is an adult, usually age 16 years and above, and who does not have a surgical condition at the time they are referred to Acute Medicine (although some will subsequently be diagnosed with conditions that need an operation).

Medical Take

Or simply the 'take', is the summative term used to describe the process of assessing and admitting non-elective (emergency) medical patients to hospital. For example, doctors might refer to the take as being busy or refer to their on-call shift as being 'on take' if it involves admitting patients.

Patient Outcomes

There are many markers of patient outcomes. Of course, for patients this means getting better. However, to objectively measure outcomes, healthcare professionals use a number of parameters including readmission rates to hospital, length of stay in hospital and death rates, to name but a few.

Physiological Parameters and Stability

In SAMBA18 this was assessed using the NEWS (National Early Warning Score). NEWS provides a cumulative score of physiological parameters (blood pressure, pulse rate, respiratory rate, temperature, oxygen levels in the blood (saturation), use of oxygen therapy and level of consciousness). Patients with higher scores are more unwell and have less good outcomes.

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Appendix 3 Acknowledgments

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Appendix 4 Units & Participants

The list below shows the 127 units that submitted data. Named participants are those people who registered to enter data or who have contacted us this year. The SAMBA team apologise if we have omitted any names or made any errors. We would be happy to amend the on-line version of the SAMBA18 report. If we can help, please contact us at www.acutemedicine.org.uk

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Airedale Hospital

Adrian Kennedy, Jan Droste, Mohammed Elhoseny

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Arrowe Park Hospital, Wirral

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Barnsley District Hospital

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Basingstoke and North Hampshire

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Chesterfield Royal Hospital

James Hankinson

Chorley and South Ribble District General Hospital

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City Hospital, Sandwell and West Birmingham NHS Trust

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Conquest Hospital, Hastings

Viktoriya Clarke

Countess of Chester Hospital

Anu Jayachandran, Elin Davies, William Armstrong

County Hospital, University Hospital of North Midlands

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Darent Valley Hospital

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Darlington Memorial Hospital

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Frimley Park Hospital

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