SAMBA '14: The team @ work

Ivan Le Jeune
Chris Subbe
Clinical Quality Indicators for Acute Medical Units (AMUs)

1. All patients admitted to the AMU should have an early warning score measured upon arrival on the AMU.

2. All patients should be seen by a competent clinical decision maker within 4 hours* of arrival on the 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 speciality consultant physician within 14 hours of arrival on the AMU**.

4. All acute medical units should collect the following data:
   - Hospital mortality rates for all patients admitted via the AMU
   - Proportion of admitted patients who are discharged directly from the AMU
   - Proportion of patients discharged from the AMU who are readmitted to hospital within 7 days of discharge
Thanks to

- Over 100 data collectors nationally !!!!!!
- Caroline Burford
- Rahul Mudannayake
- Louella Vaughan
- Chris Roseveare
Data collection

• Survey: unit size and staffing

• Data: Dropdowns to standardize replies

• Summary analysis

• Individualized feedback
Society for Acute Medicine's Benchmarking Audit - SAMBA 14

This Excel workbook is for the collection and submission of data for SAMBA 14.

There is a different workbook you can use as the Masterlist, with patient identifying information to help with your local retrieval of data.

Please fill out the information for each patient on the Data sheet.
For any questions on the day of the audit, please 'phone or text Chris Subbe on 07771 922 890.
If you have any difficulties using the workbook itself, please contact Adam Watkins (Public Health Wales) at adam.watkins@wales.nhs.uk.

You can see derived information for each patient, including achievement of the 3 SAM standards on the Derived sheet.

Some summary information relating to achievement of the standards, based on what you have entered so far, is shown below:

- First vitals taken within 30 minutes: 100% (1 / 1)
- First medical review within 4 hours: 100% (1 / 1)
- Seen by consultant within standard: 100% (1 / 1)

When you have completed the audit, please ensure that this Excel workbook is cleared of all patient identifying information and email your completed workbook to christian.subbe@wales.nhs.uk.
<table>
<thead>
<tr>
<th>Study ID</th>
<th>11c. If the patient was not seen, what was the reason?</th>
<th>12a. First Lab Results within ... of hosp. adm.</th>
<th>13a. CXR requested?</th>
<th>13b. CXR within ... of hosp. adm.</th>
<th>14a. Previously living in</th>
<th>14b. Functional limitation by Clinical Frailty Scale</th>
<th>14c. Dementia suspected or confirmed?</th>
<th>15a. Primary AMU within 48 hours</th>
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<td>15 min, 30 min, 45 min, 1 hour, 1.5 hours, 2 hours, 3 hours, 3.5 hours, 4 hours, 5 hours, 6 hours, 7 hours, 8 hours, 10 hours, 12 hours, 14 hours, 16 hours, 18 hours, 20 hours, 24 hours, 36 hours, 48 hours, &gt; 72 hours, Unknown</td>
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- 1 - Very fit
- 2 - Well
- 3 - Managing well
- 4 - Vulnerable
- 5 - Mildly frail
- 6 - Moderately frail
- 7 - Severely frail
- 8 - Very severely frail
- 9 - Terminally ill
- Not Assessed
- Not Recorded
SAM Benchmarking Audit

- SAMBA 2012
  - 30 units, 1006 patients
- SAMBA 2013
  - 43 units, 1425 patients
- SAMBA 2014
  - 68 units, 2421 patients
SAMBA ‘14: the team@work

1. Survey data
2. Admissions process
3. Sub-groups
4. Reporting
Survey data: Who is in the team? How many beds do we have?

Part 1
Size of hospital

- <300
- 301-400
- 401-500
- 501-600
- 601-700
- 701-800
- >800
Location

- Large City
- Small City
- Rural
Academic?

- University Hospital
- Large Teaching Hospital
- District General...
SAMBA 2014 Survey Data

• 110 units:
  – 30 University Hospitals,
  – 12 teaching hospitals and
  – 68 District General Hospitals.

• 49 (SD20) beds,
  – 8 (7) ambulatory care,
  – 13 (SD15) short stay units.
The team

- 107 Pharmacists
- 95 Physio-therapists
- 88 Occup. therapists
- 65 Cardiologists
- 54 Chest physicians
- 47 Gastro-enterologists
- 24 Neurologists
Consultant input

• 16 (SD8) sessions /working week
• 6 (SD5) by Acute Physicians.

• SAMBA -day
  – 5.4 (SD3) consultant sessions/24 hrs.
  – 63.4% of seen by Acute Physician
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<td>Others doctors</td>
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<td>Advanced Nurse Practitioners</td>
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<td>Registered Nurses</td>
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<td>Non-registered Nurses</td>
<td>4.5</td>
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Part 2
Unit Profiles – 66 units

• Case mix
  – Median 33 [IQR 26-42]
  – GP 32%
  – Readmitted 18%

• Quality Indicators
  – 83% Vital signs within 30 minutes
  – 82% seen by medical staff within 4 hours
  – 74% seen by consultant within 14/8 hours
  – 55% achieved all 3 indicators
Other outcomes

• Investigations
  – 67% Lab in 2 hrs
  – 79% CXR in 4 hrs
NEWS

• NEWS available in 1401 patients
  – Median 1
  – NEWS 5 or more: 12%

• NEWS (mean) for different subgroups
  – ED admission 2
  – GP admission 1.5
  – Ambulatory care 1
Sick patients?

- Trigger on local score: 14%
- Outreach team informed: 25%
- Continuous monitoring: 10%
- Non-Invasive Ventilation: 14 patients
- Escalation to ICU/HDU/CCU: 67 patients
Frailty

- 32% frail

Clinical Frailty Scale*

1. *Very Fit* — People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2. *Well* — People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g. seasonally.

3. *Managing Well* — People whose medical problems are well controlled, but are not regularly active beyond routine waking.

4. *Vulnerable* — While not dependent on others for daily help, often symptoms limit activities. A common complaint is being “slowed up”, and/or being tired during the day.

5. *Mildly Frail* — These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6. *Moderately Frail* — People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.

7. *Severely Frail* — Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8. *Very Severely Frail* — Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9. *Terminally Ill* - Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal cares with prompting.

In severe dementia, they cannot do personal care without help.


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Trusts’ 72hr direct discharge rates ranged from: 13.6 to 66.7%
Part 3

Disease specific profiles
Disease specific

• CVA suspected in 133 patients
  – CT@12 hours in 113 (85%)

• PE suspected in 80 patients
  – CTPA/VQ@24 hours in 48 (60%)

• Upper GI bleed suspected in 67 patients
  – OPD within 24 hours in 34 (51%)
Add ons

• Sepsis
  – 218 patients
  – 172 antibiotics within 3 hours
  – 94 sepsis bundle used

• Acute Kidney Injury
  – 121 patients
  – 87 fluid challenge given
  – 19 AKI bundle used
Performance reports?

Part 4
## Trends

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<td><strong>Vital signs</strong></td>
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<td><strong>All three</strong></td>
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<td>55.1</td>
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Performance Report - NUH

Audit data quality
Completeness of data submitted: High

Admissions
- Total number of patients per day: High
- % Referred by GP: Mid
- % Triggering on NEWS: Low
- % with at least mild frailty: Mid

Process
- % First observations within 30 mins: High
- % Clerked within 4 hours: Low
- Time to first bloods: Mid
- Time to CXR: Mid
- % Composite consultant end-point: High

Outcomes
- % Discharged directly: High
- % Seen only in Ambulatory Care: High
- Time to direct discharge: Mid
- Time to ward transfer: Mid
- % VTE prophylaxis assessed: High

% of patients fulfilling "composite" SAM quality standards end-point ("intention to analyse"): EWS within 30mins clerked within 4 hours consultant reviewed (14 / 8 hours)
Performance Report - NUH - Nottingham

SAMBA 14

Admissions
- Total number of patients per day: High
- % Referred by GP: Mid
- % Readmitted: Mid
- % Triggering on NEWS: High
- % with at least mild frailty: High

Quality Indicators
- % First observations within 30 mins: High
- % Clerked within 4 hours: High
- % Consultant end-point: High
- % Composite SAM Quality Indicators: High

Process Markers
- % First blood results within 2hrs: High
- % Having CXR: Low
- % CXR within 4hrs: High
- % Seen by Ac Med Consultant: Mid
- % Direct Discharge: Mid

% Patients whose care met the first 3 of SAM's quality indicators
(EWS within 30mins, clerked within 4 hours, consultant reviewed (8/14 hours)

Overall % patients whose care met SAM quality Indicators
102 patients per day – not evenly distributed!!
Clerking Survey

• Run by juniors for juniors
• Not seen as a test; anonymous

• In reality it takes 80mins to process a patient
  – More than we thought
  – Also gave some pointers as to how to make the process more efficient
    • Proformas
    • Proximity log in
    • Pharmacy technicians
Number of juniors needed in Acute Medicine

24 hour day

Number of juniors needed per hour (Weekday)

- AMRU
- LJU
- D57
- B3
From modelling to rota...

• Wave your wand
• Say “Abracadabra”
• The perfect number of juniors will appear at the correct times, in the correct places and work as a great team!
Monitoring impact
17.6% uplift in junior doctor time at weekends and OOH

Within the EWTD, New Deal & Banding structures

Will this make a difference??
# MDT Roles

## Ward round duties

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<th>Consultant</th>
<th>Bay Nurse</th>
<th>Pharmacist</th>
<th>ANP</th>
<th>Junior Dr</th>
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<td>Preparation of Patient (notes, charts, expectations)</td>
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<td>Considerative Q’s (Pain, nutrition, elimination, confusion etc)</td>
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<td>Checklist (VTE, attribution, lines, falls risk, ceilings of care)</td>
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**KEY:**
- Leads =
- Supports =
Consultant Gaps

• Traditionally those on the rota just asked to work harder

• Patients’ safety first
  1. Create a rota with the correct shift pattern
  2. Pay for the gap to be closed by locum / WLI shifts
  3. Recruit substantive consultant time to reduce cost burden

• Recruitment (to Acute Medicine) very difficult
  – Acute shifts are not “dreaded” if there are enough staff!
  – Specialty help:
    • Hybrid posts
    • Team commitment to more Ac Med PAs
    • Flexible posts within Ac Med
    • Devolvement of parts of take to specialties
Impact on Senior Review time

InHrs = Mon to Fri, 08:00 to 18:00. OOH = Mon to Fri, 18:01 to 07:59. Weekend = Sat & Sun. Weeks commencing Monday.
Summary

• Representative vs Heterogeneity?

• When does the clock start?