Delirium: How to get trolley-ed

Dr J Downing, Dr A O’Brien, Dr F Rickard, Dr H Wood,
Dr SJ Bailey, Dr B Wildblood, Dr S Balham,
Dr M Sritharan, Dr E Bowen
Charlie Pope @popeyg 16/03/2018 Dr Chris Marsh delivering some #bathtreatrolley teaching to staff - today on ultrasound anatomy for lumbar neurotensin blocks @RUH_Bath @RUH_Bath @RegionalAnaesthUK #POCUS #Regional

Fiona @FionaFionakel 24/10/2018 #bathtreatrolley training today (without the tea this time!) by Katie from @storzsrnogry uk teaching ICU nurses re use of the CMAC #universalvideoassaygrocopmcopmc @RUH_Bath @RUH_CriticalCare

RUH Bath @RUH_L_16/03/2018 Great to see one of our BMJ Award finalists in action! @bmj_latest #bathtreatrolley twitter.com/popeyg/statu

Fiona @FionaFionakel 04/03/2019 More tea trolleysing today, this time NMT monitoring and lemon cake - chance for the team to practise putting on the accelerometer, increase their knowledge and perfect their technique @RUH_Bath #bathtreatrolley Thank you Mark and Lucy!

Fiona @FionaFionakel 27/02/2019 MDT training in the workplace for the whole Anaesthesia team today @RUH_Bath - from student DDPs up to our very own Prof Jerry Noble! CMAC Dblade refresher plus VHI plus tea and cake. Thank you Laureen, Mel and @fionauniversity for organising #bathtreatrolley

Fiona @FionaFionakel 28/08/2018 Replying to @bdkładojordan We're amazing @MarkJuniper and Swindon staff #bathtreatrolley
Recognising Diagnosis (using 4AT) Causes Management

https://www.lindadykes.org/downloads
- One month data only included 23/67 original participants
Potential Cost Savings

Courses are expensive:

- (ALS £230/day APLS £300/day)
- Assume £250/day
- 67 Staff trained \(<\frac{1}{8}\) day per person
- \(67 \times (250/8) = £2'093\) saving

Additional savings
- Travel
- Accommodation
- Rota Gaps
Tea trolley training
Take a break to teach, teach to take a break!

At both NHS Trust the learning opportunities of huddles are being maximised via the use of a tea trolley.
Sasha Winkler, CT3 in anesthesia, describes this innovative strategy.
"Tea trolley training is a novel method of training that we have developed in Bristol over the past 3 years and which we have used extremely successfully to provide multidisciplinary training in the workplace in our intensive care unit (ICU). It involves loading up a trolley with educational material on the top and a pot of tea on the bottom.

This trolley then travels around the ICU, with 1-2 trainers providing 5-10 minute teaching sessions to ICU staff in their workplace during their usual working day (or even night shift), followed by a cup of tea.

We have found that this teaching method works very well for procedural training (eg airway rescue manoeuvres), new protocols and protocols (both new protocols and to refresh existing ones, eg major incident plans, major haemorrhage protocols) and even for electronic mentoring. We have run projects in the ICU, operating theatres, delivery suite and in the general wards – and have trained >700 staff using this method."

Since the team, led by Dr Fiona Kelly (intensive care medicine consultant) started delivering this training 4 years ago, 12 other UK hospitals have also adopted this approach. The strategy has also attracted attention on an international scale with organisations in both France and Canada looking up to see how they can implement a similar strategy in their multidisciplinary learning throughout their workplace.

For more information follow #Teatrolleytraining on social media.
Any questions?

References


Feasibility Study of Ambulatory Care for Adult Patients (AMBUCAP) admitted to the medical wards of a tertiary referral hospital in Botswana

Barbara Lachana Onen¹,², Billy Tsimą³, Barapedi Bagwasi-Shagwa³, Daniel Lasserson⁴, Joe Jarvis¹,³

¹ London School of Hygiene and Tropical Medicine; ² Royal London Hospital, ³ University of Botswana Medical School; ⁴ University of Birmingham
Objectives

• Determine the proportion of adult medical patients (AMPs) admitted to Princess Marina Hospital (PMH), who are eligible for Ambulatory care (AC)
• Compare clinical outcomes at 30 days
• Determine the perceptions of patients and healthcare workers about AC
Study design/methods

• Observational study of consecutive AMPs admitted to medical wards at PMH over 8 weeks (July/August 2018)
• Patients’ views of AC were sought and HCWs’ comfort managing patients with AC, using a 5-point Likert scale, assessed
• Attending clinicians blinded to the results of admission scores – Ambulatory (AMB) Score and Glasgow Admission Prediction (GAP) score
• Exclusion: ICU via Medical ward, prisoners, high National Early Warning score (NEWS)≥4, confused and unable to consent
AMBUCAP study recruitment

Medical Admissions screened (n = 447)

Admissions not eligible for study (n=261)

Admissions eligible for study (n=186)

No consent (n = 33)

Total patients consented and included in study (n = 153)

Complete data analysis
- GAP n=106
- AMB n=76
Results: Ambulatory care eligible patients (ACEPs)

4.9% - AMB score
1.6% - GAP score

• 57% of ACEPs with traditional AC diagnoses
  Anaemia, presumed bacterial infection, stroke, dysrhythmia, malignancy, hepatitis, seizure, DVT and heart failure

• 2 had an outcome indicating failure of AC (death during admission, one of whom had been re-admitted to hospital 30 days prior to admission)
Perception of ambulatory care

Health care workers' perception of Ambulatory Care conditions

- DVT awaiting a Doppler scan for SC LMWH
- Suspected bacterial infection for IV antibiotics
- Heart failure for daily IV diuretics and daily weights
- Chronic anaemia planned transfusion
- Mild/Mod dehydration for IV fluids
- Monitor
- OGD
- DM
Limitations/Conclusions

• Small sample size and only one urban site
• Early warning scores not systematically recorded, calculated or communicated
• 5% of patients eligible for AC
• AMBUCAP is both feasible and acceptable
  • But what is the level of acceptable mortality suitable for home treatment
• High income country risk scoring systems need modification for low income country settings
• The study highlights the importance of appropriate risk stratification in context and how physician perception of conditions suitable for AC could influence service development
Care of Homeless Inpatients
Are we up to standard?

Dr Lorna Green, Gloucestershire NHS Foundation Trust
(On behalf of Dr Victoria Gaunt, Dr Pippa Medcalf, RN Shona Duffy)
Background

• 170,000 homeless people in the UK currently
• Average life expectancy: 43 for homeless women, 47 for men
• An estimated 600 people died in the UK whilst homeless in 2017, 1/3 from treatable conditions
• The Homeless Reduction Act 2017: legal duty to refer 100% homeless to LHA

Faculty of Inclusion and Homeless Health Standards (2018)
• Dedicated housing officer
• Named link hospital co-ordinator
• Information pack for homeless people
• Supply of clean clothing
• Training and education of all hospital staff

The Faculty for Homeless and Inclusion Health (2018). Homeless and Inclusion Health standards for commissioners and service providers. 3rd ed.
Notes Review

- Gloucester Royal Hospital have a dedicated housing officer, employed in 2013
- 350 presentations to our A&E with ‘NFA’ in 2018
- Reviewed notes of all patients coded as ‘NFA’ Jan and April 2018 30 admissions identified

<table>
<thead>
<tr>
<th>Age</th>
<th>≤20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>≥61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>4</td>
<td>17</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

64% mental health problems
86% substance misuse/dependence
Referral and Discharge

- 20% no registered GP on discharge letter
- 13/30 referred to housing officer

Outcome of referral:
- Supported accommodation: 3
- B&B: 4
- P3 assessment: 3
- Moved in with friends: 1
- Self-discharge: 1
- Not homeless: 1
Interventions

Education 11 sessions, GP, Foundation and ED handover

Elim Housing - Time to heal...
Support with health and housing needs facilitating
safe discharge from hospital
01452 551196

Citizens Advice Bureau
75-81 East St.
01452 527202

Green Square - Housing support
01452 726951
Drop in at Gloucester city council 10am-1pm

P3 - Housing support
13-15 Ladybell Gate St.
01452 221698
Drop in Mon to Fri 10am-5pm

Gloucester City Mission
General support (foodbank/clothes etc.)
George Whitfield Centre
01452 901922

The Women’s Centre
01452 397690

Food and Meals

Monday
12-1pm Lunch @ Salvation Army, Eastgate St.
(Opposite GL1)
9-10.30pm Soup run, city centre

Tuesday
10am-1pm Lunch @ Seventh day Church, Cromwell St.
10.30am-12 Coffee @ Park Street Mission
2-4pm Gloucester City Mission (Drop-in)

Wednesday
11am-12.30 Gloucester City Mission
9-10.30pm Soup run, City Centre

Thursday
7.50-8.50am Breakfast @ Cathedral Coffee Shop
10am-1pm Lunch @ Seventh Day Church

Friday
11.30am-1pm Lunch @ Mariners Hall
2-4pm Gloucester City Mission (Drop-in)

Saturday
9-11pm Soup run, City Centre
<table>
<thead>
<tr>
<th>Knowledge Checked</th>
<th>Before Interventions (N=54)</th>
<th>After Interventions (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with a homeless patient</td>
<td>93%</td>
<td>90%</td>
</tr>
<tr>
<td>Aware of Trust Guidelines</td>
<td>45%</td>
<td>58%</td>
</tr>
<tr>
<td>Aware of written information for homeless patients</td>
<td>34%</td>
<td>62%</td>
</tr>
<tr>
<td>Aware of clean clothes store</td>
<td>34%</td>
<td>88%</td>
</tr>
<tr>
<td>Received Teaching about managing homeless patients</td>
<td>14%</td>
<td>26%</td>
</tr>
<tr>
<td>Experienced a homeless person discharged to the street without support</td>
<td>34%</td>
<td>42%</td>
</tr>
</tbody>
</table>
Conclusions and Ongoing work

• Conclusions
  • Faculty Standards provide an achievable benchmark for care
  • Staff education has been demonstrated to raise awareness of available services
  • A housing officer is an effective way of ensuring accommodation on discharge, BUT a referral must be made

• Limitations
  • Electronic identification of NFA underestimates numbers
  • Education targeted only at doctors who frequently rotate

• Going forward...
  • Creating an alert on our IT system for homeless patients
  • Recruiting homeless link nurses from each hospital ward
  • Expanding education programmes to reception and nursing staff
“Pain Assessment And Management In Ambulatory Care...”

Introducing new measures for Rapid Nursing Assessment

Dr Sumeer K Mittal

ST3 Geris/GIM, John Radcliffe Hospital, Oxford University Hospitals

Authors:

Dr Sumeer K Mittal, Dr Kiki Marinou, Mr Raymond Atienza-Hawkes, Dr Jordan Bowen, Dr Mridula Rajwani, Dr Sudhir Singh
Why is pain management important in the Ambulatory Care setting?
“Pain” Presenting To Ambulatory Care?

• Pain is a universal symptom
• Our current ageing population, living with increasing multi-morbidity, requires timely pain assessment when visiting secondary care facilities, for interim acute care.
• Ambulatory care/AEC’s are an important front line service in the 21\textsuperscript{st} century.
• The rapid nursing assessment process (RNA), begins on patient arrival to AAU.
  • Involves initial history, instigating initial bedside tests such as bloods, cannulation, ECG and urinalysis.
• This QI project aimed to initiate a streamlined pain assessment pathway for the RNA process.
Aims: Designing Approach With QI Methodology

What are we trying to achieve?

- To ensure patients are asked about pain and offered appropriate management, within an adequate time frame.
- This process should be simple, reproducible and consistent amongst nursing/medical staff members.

How do we know a change is an improvement?

- An increase in the...
  - Percentage of patients with a pain history – in particular an initial “pain score” on arrival.
  - Prescription of analgesia.
- A reduction in the...
  - Time to the administration of analgesia.

What change(s) can we make that will lead to an improvement?

- A poster...
  - Asking about pain symptoms and getting patient’s to think about the severity of their pain?
  - Raise awareness of the ongoing importance of pain assessment
- An assessment tool that will facilitate rapid documentation and escalation of initial pain symptoms.
Method: Planned Cycles

• **PDSA Cycle 1** – This will act as the baseline measurement after which the poster intervention will be introduced.

• **PDSA Cycle 2** – This will assess the effectiveness of the poster in raising awareness of the importance of pain assessment...after which the second intervention, the pain assessment tool will be introduced.

• **PDSA Cycle 3** – This will assess the effectiveness of the pain assessment tool.

• **PDSA Cycle 4** – This will assess the sustained effectiveness of the second intervention, the pain assessment tool.
Results – Cycle 1: Baseline Measurement

- A full day of data collection (0800-2100), in March 2018.

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Of Patients</td>
<td>31</td>
</tr>
<tr>
<td>Patients excluded</td>
<td>2</td>
</tr>
<tr>
<td>Patients reporting pain</td>
<td>18</td>
</tr>
<tr>
<td>Patients with documented pain history</td>
<td>13</td>
</tr>
<tr>
<td>Patients with documented pain score</td>
<td>4</td>
</tr>
<tr>
<td>Patients prescribed analgesia</td>
<td>4</td>
</tr>
<tr>
<td>Av. Time from arrival to prescription</td>
<td>1h30mins</td>
</tr>
<tr>
<td>Av. Time from prescription to administration</td>
<td>0h48mins</td>
</tr>
</tbody>
</table>
Results – Cycle 1: Spectrum of Presentations

Main Presenting Complaint

- Chest Pain
- Breathlessness
- Cough
- Headache
- Ear/Head Pain
- Palpitations
- Syncope, TLOC
- Abdominal Pain
- Fever
- Jaw Pain
- Abnormal Blood Results
Results – Cycle 1

• Of those patients reporting pain as part of their symptomatology...
  • 72% had further detailed history regarding the pain
  • 22% had a formal documented pain score.

• Of those **not** prescribed analgesia...
  • 3 patients were stated to be pain free on arrival
  • 3 declined analgesia
  • 2 patients had self-administered prior to arrival, declining further analgesia
Welcome to the Ambulatory Assessment Unit

It is important for us to know if you are experiencing pain
...so please do tell us.

What are your symptoms of pain?

How would you score your pain on a scale of 0 to 10?

0 1 2 3 4 5 6 7 8 9 10

No Pain Worst Pain

Have you had to take any painkillers recently?
Second Intervention

<table>
<thead>
<tr>
<th>AAU - Ambulatory Assessment Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Pain Assessment</strong></td>
</tr>
<tr>
<td>Pain Score (0-10)</td>
</tr>
<tr>
<td>Analgesia offered?</td>
</tr>
<tr>
<td>Doctor informed?</td>
</tr>
<tr>
<td>Analgesia administered?</td>
</tr>
<tr>
<td>Time:</td>
</tr>
</tbody>
</table>
## Results – After 4 Cycles

- Comparison between cycles:

<table>
<thead>
<tr>
<th>CYCLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number Of Patients</td>
<td>31</td>
<td>33</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>Patients excluded</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Patients reporting pain</td>
<td>18</td>
<td>17</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Patients with documented pain history</td>
<td>13</td>
<td>15</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Patients with documented pain score</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Patients prescribed analgesia</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Av. Time from arrival to prescription</td>
<td>1h30mins</td>
<td>2h01mins</td>
<td>0h48mins</td>
<td>0h57mins</td>
</tr>
<tr>
<td>Av. Time from prescription to administration</td>
<td>0h48mins</td>
<td>0h50mins</td>
<td>0h23mins</td>
<td>0h14mins</td>
</tr>
</tbody>
</table>
Results - After 4 Cycles

Number of Patients with Documented Pain Score

Cycle

0 2 4 6 8 10 12

1 2 3 4

Results - After 4 Cycles

Number of Patients with Documented Pain Score

Cycle

0 2 4 6 8 10 12

1 2 3 4
Results - After 4 Cycles

- Av. Time from arrival to prescription
- Av. Time from prescription to administration
Discussion – Key Points

• The pain poster received positive feedback, however objectively, the data from the second cycle did not show any significant improvement to baseline.

• The introduction of a formal assessment tool - proved to be the unifying factor.

• It led to an increase in documented pain scores of over 50% in both cycle 3 and 4.
Discussion – Key Points

• “Tick-box” style questions after the pain score – made it easier to follow through a sequential process.

• “Average time” from patient arrival to prescription of analgesia, was substantially reduced after the third cycle *(by 73 minutes)*

• Shorter duration between the actual prescription to the administration of analgesia *(by 27 minutes)*

• Results were reproduced in the fourth cycle indicating sustainability and success in the main aim of this project; however the timings were not as efficient as the third cycle.
Thank you for listening...

Any Questions?
SAM – A Thematic Analysis
Mark Boyle - FY1 - Blackpool Victoria Hospitals
Aims

• Profile SAM Audit and Quality Improvement (A&QI) abstract submissions
• Identify themes present
• Highlight avenues for future analysis into cause and effect
Methodology

• Data was compiled from the 5 most recent UK based SAM conferences

• A&QI abstracts were profiled using their:
  1. Entry number
  2. Year/month/location of conference
  3. Title
  4. Web-link
  5. Author
  6. Region of submission

• Abstracts were then classified into 30 categories and then sub-categorised

• Where the key topic of the abstract was not evident from its title, the submission was reviewed using the provided web-link

• Submissions with unclear titles where no link was provided were excluded (n=2)

• Data was plotted by Pareto chart and assessed cumulatively, by category and by conference
Findings and results

Table 1: Submission Profiles by Conference

<table>
<thead>
<tr>
<th>Conference</th>
<th>Submissions</th>
<th>A&amp;QI (%)</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast</td>
<td>96</td>
<td>39 (40.63%)</td>
<td>15</td>
</tr>
<tr>
<td>Edinburgh</td>
<td>193</td>
<td>74 (38.34%)</td>
<td>26</td>
</tr>
<tr>
<td>Cardiff</td>
<td>94</td>
<td>45 (47.87%)</td>
<td>22</td>
</tr>
<tr>
<td>Birmingham</td>
<td>136</td>
<td>55 (40.44%)</td>
<td>19</td>
</tr>
<tr>
<td>Bournemouth</td>
<td>168</td>
<td>80 (47.62%)</td>
<td>22</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>687</strong></td>
<td><strong>293 (42.65%)</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
Findings and results

50% of abstracts fall within 20% of categories
80% of abstracts fall within 47% of categories
## Findings and results

### Table 2: Subcategories for Top 9 A&QI Themes

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flow and Performance</td>
<td>SAMBA / SAM CQI</td>
<td>25</td>
<td>36.23</td>
</tr>
<tr>
<td></td>
<td>AEC</td>
<td>19</td>
<td>27.54</td>
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<tr>
<td></td>
<td>Wardround</td>
<td>7</td>
<td>10.14</td>
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<tr>
<td></td>
<td>Frailty Unit</td>
<td>5</td>
<td>7.25</td>
</tr>
<tr>
<td>2. Prescribing</td>
<td>Oxygen</td>
<td>5</td>
<td>29.41</td>
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<tr>
<td></td>
<td>IV fluids</td>
<td>4</td>
<td>23.53</td>
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<tr>
<td></td>
<td>DOACs</td>
<td>2</td>
<td>11.76</td>
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<tr>
<td></td>
<td>Cellulitis</td>
<td>1</td>
<td>5.88</td>
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<tr>
<td></td>
<td>End-of-Life Care</td>
<td>1</td>
<td>5.88</td>
</tr>
<tr>
<td></td>
<td>Gentamicin</td>
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<td>5.88</td>
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<tr>
<td></td>
<td>Paracetamol</td>
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<tr>
<td></td>
<td>PCC</td>
<td>1</td>
<td>5.88</td>
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<tr>
<td></td>
<td>Weight</td>
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<td>5.88</td>
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<tr>
<td>3. Sepsis</td>
<td>Pathway</td>
<td>12</td>
<td>70.59</td>
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<td>4. Investigations</td>
<td>UTI</td>
<td>5</td>
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<td>HIV</td>
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<td>25</td>
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<td></td>
<td>Troponin</td>
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<td>12.5</td>
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<td>Coagulation</td>
<td>1</td>
<td>6.25</td>
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<tr>
<td></td>
<td>CRP</td>
<td>1</td>
<td>6.25</td>
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<td></td>
<td>Paracetamol Level</td>
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<td>6.25</td>
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<td>6.25</td>
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<td></td>
<td>X-Ray</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td>5. Handover</td>
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<td></td>
</tr>
<tr>
<td>6. VTE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Documentation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8. Procedure</td>
<td>Lumbar Puncture</td>
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<td>33.33</td>
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<td></td>
<td>Equipment</td>
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<td>25.00</td>
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<td></td>
<td>Cannulation</td>
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<td>8.33</td>
</tr>
<tr>
<td></td>
<td>Checklist</td>
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<td>8.33</td>
</tr>
<tr>
<td></td>
<td>Chest Drain</td>
<td>1</td>
<td>8.33</td>
</tr>
<tr>
<td></td>
<td>Consent</td>
<td>1</td>
<td>8.33</td>
</tr>
<tr>
<td></td>
<td>Pleural Aspiration</td>
<td>1</td>
<td>8.33</td>
</tr>
<tr>
<td>9. Staff</td>
<td>Knowledge</td>
<td>6</td>
<td>50.00</td>
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<tr>
<td></td>
<td>Training</td>
<td>2</td>
<td>16.67</td>
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<tr>
<td></td>
<td>Wellbeing</td>
<td>2</td>
<td>16.67</td>
</tr>
</tbody>
</table>
Discussion and Recommendations

• The vast majority of SAM submissions fall within a relatively small cohort of categories, a theme reproducible in all 5 conferences.
• Further profiling highlights that within this small cohort of key categories the majority of submissions again fall within a fraction of total subcategories.
• This suggests SAM A&QI focus is on a few key issues, the repetitive coverage of which may imply difficulty in finding solutions.
• Further causative analysis into these key themes may provide a platform for positive and permanent quality improvement.

Recommendations:
• Mandate website links
• Inclusion of approved keywords in abstract titles to promote clarity of content
• Implementation of a prospective questionnaire, embedded in the abstract submission webpage, to capture abstract authors' 'motivation' for completion of their A&QI projects
• Repeat exercise with more academic vigour

Any questions?

Dr. Mark Boyle
@markboyletweets
Foundation Year 1
Blackpool Victoria Hospital
Improving inter-hospital communication by reducing avoidable switchboard delays: Phase One of The National SWITCH Quality Improvement Project

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Special thanks to Edd Maclean and the SWITCH INVESTIGATORS
Background

The need for quality improvement work

Patients on the Acute Medical Unit (AMU) require cross-speciality input

This frequently requires the use of an external hospital switchboard

Avoidable switchboard delays may defer contact with the target clinician and therefore disrupt patient care
Aims

To measure the time taken to reach a switchboard operative capable of delivering bleeps for every acute hospital in England

To analyse sources of avoidable switchboard delay for each hospital

To identify trends as targets for future quality improvement measures
Methods

180 acute hospital switchboards in England were contacted externally on 6 occasions:

- 2 x weekday morning (excluding Monday) (8-11am)
- 2 x weekday evening (6-8pm)
- 2 x weekend (10-12am)

Calls were terminated once an operative capable of delivering bleeps or calls was contacted

The contents and duration of the call were documented electronically

The project was registered with the Clinical Effectiveness Team and HQIP were consulted for ethical guidance
Results

The mean delay before speaking with a switchboard operative was $55 \pm 32$ (1SD) seconds (range 3-248 seconds).

Time of the week: The longest delay was encountered on weekday mornings (61 seconds, $p=0.002$), followed by weekday evenings (57 seconds) and weekends (48 seconds).

Robots v Humans: Use of a robot operator introduced an additional 40 second delay when compared with humans (mean 70.3 seconds vs 30.1 seconds, $p<0.0001$).

Analysis of Robot Operators: Of the 115 hospitals (64%) with robot operators, only 70 (61%) offered contact with a switchboard operator as the first keypad option, and 34 (30%) had mandatory infection control messages.

What predicts a waiting time of over 60 seconds? (Multivariate analysis)

- A robot operator (Hazards Ratio (HR) 5.1, $p<0.0001$)
- Mandatory infection control messages (HR 2.9, $p=0.003$) as powerful predictors of switchboard delays over 60 seconds.
# The league table – where do you rank?

## Top 10
1. Great Western Hospitals NHS Foundation Trust
2. Mid Yorkshire Hospitals NHS Trust
3. The Whittington Health NHS Trust
4. The Queen Elizabeth Hospital King’s Lynn
5. East London NHS Foundation Trust
6. Mid Cheshire Hospitals Foundation Trust
7. Humber NHS Foundation Trust
8. East Lancashire Hospitals NHS Trust
9. Leicestershire Partnership NHS Trust
10. Newham Hospital

## Bottom 10
1. Worcestershire Acute Hospitals NHS Trust
2. North Middlesex University Hospital NHS Trust
3. United Lincolnshire Hospitals NHS Trust
4. East and North Hertfordshire NHS Trust
5. Barking, Havering and Redbridge University Hospitals NHS Trust
6. Great Ormond Street Hospital for Children NHS Foundation Trust
7. Mount Vernon
8. Hillingdon Hospital
9. Tameside Hospital NHS foundation Trust
10. Royal National Orthopaedic Hospital NHS Trust

FULL TABLE CAN BE FOUND ON POSTER
Conclusions

📞 There are significant avoidable switchboard delays throughout England.

📞 This is in part driven by mandatory infection control messages and inefficient automated triage.

📞 Human operated switchboards outperformed robot operators.

📞 The cumulative time wasted by healthcare professionals across England as a result of avoidable delays should be considered a key target for efficiency savings.

Future Work

📞 All NHS trusts in England will be sent the above data.

📞 Quality Improvement Representatives will be contacted to discuss improvement strategy – anyone interested?

📞 For automated switchboards, a national gold standard will be recommended which gives healthcare professionals the option to skip past avoidable delays.

📞 Repeat data collection will take place from June 2019.
THANK YOU

Any questions?
When will the doctor see you?

An Evaluation of Time to Senior Review in a DGH AMU

Dr. Matthew Nelson
@DocMattNelson

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Introduction & Background

• 36 bed AMU
  • ~18500 admissions annually
  • ~300 deaths annually (on the unit)

• Three staffing patterns
  • Weekday (“In hours”)
  • Weekend day (“Out of hours”)
  • Night (“Out of hours”)

• Digital patient tracker
  • All data for 2017 exported (18578 records)
  • Aberrant records removed (28, 0.2%)
  • Absent time to senior review (2834, 15%)
Standards & Adjustments

• “patients should be reviewed by the admitting consultant physician or an appropriate speciality consultant physician within 14 hours of arrival”
  • *i.e. at all times, in- or out-of-hours*

• “consultant review for patients arriving on the AMU between 0800-1800 should usually be undertaken within 8 hours of the patient’s arrival”
  • *i.e. in-hours, or 0900-2100 for Blackpool*
Performance Comparison

**In-Hours**

- 44% ≤8h
- 25% ≤14h
- 16% ≥14h
- 15% NR

**Out-of-Hours**

- 32% ≤8h
- 35% ≤14h
- 17% ≥14h
- 16% NR

**Data Summary**

- Total Hours: 108 hours
- Consultant Sessions: 12 sessions
- Admissions: 10462 admissions
- Deaths: 189 (1.8%)
- Deaths before SR: 53 (0.5%)
- Mean: 10h33
- 80th percentile: 14h24
- Median: 9h56
- Max: 78h02

**Legend**

- Green: ≤8h
- Light Green: ≤14h
- Red: ≥14h
- Black: NR
Triage & Mortality

Time to Senior Review (minutes)

In-Hours
- Red
- Yellow

Out-of-Hours
- Green

* indicates statistical significance.
Conclusion

• Fewer in-hours admissions, poorer performance
  • Chicken and egg – senior reviews performed during the day, but attributed to the night

• More variability in time to senior review for in-hours admissions, prioritisation policy not followed entirely
  • Some mitigation: out-of-hours performance only affects healthiest admissions

• Patients who died were reviewed at different times to the background population
  • Earlier in-hours, later out-of-hours
Any questions?

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