The Effectiveness of Care Bundles in a District General Hospital

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Rationale

- The Francis Report
- How does this relate to QEH?

Definition

Aim

Design of the bundles

Examples of conditions covered

Getting the word out

Assessing the impact

- Where are they used?
- Audit outcomes to date

Feedback

Conclusions

The future…. 
The Francis Report?

Published in February 2013, the final report into failures of care at Mid Staffordshire NHS Foundation Trust. It has profound implications for the whole of the NHS.

- Uncovered a lack of basic care, such as patients being left in excrement in soiled bed clothes for lengthy periods, assistance not being provided with feeding for patients who could not eat without help, and staff treating patients and their families with indifference and a lack of basic kindness.

- The report considers why problems were not identified and acted on sooner, and what should be done to prevent it happening again in future.

- The report ultimately concludes that events at the Trust are “not of such rarity or improbablity that it would be safe to assume that it has not been and will not be repeated.”
The report calls for a "fundamental change" in culture and makes 290 recommendations covering a broad range of issues relating to patient care and safety in the NHS.

A key recommendation was that NHS organisations demonstrate how they are tackling poor quality care and developing solutions to address quality and safety.

Clinicians are aware of the management of common conditions, however despite this, incident reporting at QEH highlighted quality of care provided was at times suboptimal.

With this in mind, a series of care bundles for common medical emergencies presenting to the acute medicine unit were developed.
A care bundle is…

“A small set of evidence-based interventions for a defined patient segment/population and care setting that, when implemented together, will result in significantly better outcomes than when implemented individually”.


- At that time QEH had subscribed to the BMJ Actionsets which had a similar model, however in a year not a single one had been used within the hospital.

- Feedback was that they were too cluttered and complicated, which put people off even trying to use them.
Aim

- Based on best evidence available from sources such as NICE, SIGN and BTS.

- The aim was to provide clear, easy to use guidance to aid in clinical decision making, and to provide details on the optimal quality care for specific medical conditions.

- In order to reduce the wide variation of standard of care given when managing the common medical conditions seen within the medical department.

- Ultimately improving safety and quality outcomes for patients, optimising patient flow and reducing the cost of care.

- With the additional benefit of reducing the potential for patient complaints.
Design of the Care Bundles

A tale of two halves…

- Single page, sticky label design. The top half details any applicable risk stratification as well as admission criteria.

- It is filled in and collected providing a clear audit trail.
Design of the Care Bundles

A tale of two halves...

- The bottom half provides a clear guide to the evidence-based management of the condition.

- This section can be removed and stuck into the patient notes so all members of the clinical team can see it.

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>K Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Management of Community Acquired Pneumonia (BTS Guideline 2009)**

<table>
<thead>
<tr>
<th>CURB 65 Score</th>
<th>Score</th>
<th>TICK</th>
<th>Time/Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confusion [AMTS &lt;8]</td>
<td>Urea &gt;7mmol/L</td>
<td>Resp Rate &gt;30/min</td>
</tr>
<tr>
<td></td>
<td>Score</td>
<td>Tick</td>
<td>Time/Initials</td>
</tr>
<tr>
<td></td>
<td>0 or 1 (Aim home)</td>
<td>If not give reason</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (Tick)</td>
<td>1. Blood culture before abx and FBC, U&amp;E, CRP, Lactate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Sputum Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. CXR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Urine Pneumococcal and Legionella antigens</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. ABG if sats &lt;92%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. If BP &lt;90 systolic – give 1L Hartmann’s and reassess</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 to 5</td>
<td>1. Perform actions as for CURB 2 and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Atypical Serology-Legionella</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Hourly Obs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Consider ITU and refer to respiratory team after senior R/V</td>
<td></td>
</tr>
</tbody>
</table>

Treatment with antibiotics should be continued for up to 7 days where CURB 65 ≥2 or up to 10 days where CURB 65 ≥3, extending to 14-21 days in the case of Legionella, Staphylococci or Gram negative enteric bacilli. It Patient is >40 years, RR>38 on NIV, high EWS, haemodynamically unstable, severe acidosis - ITU should be involved. Oral clarithromycin has excellent bioavailability – use oral route where possible. Note interactions with clarithromycin - check BNF or discuss with pharmacy.

Top section to be retained for Audit Bottom section to be placed in the clerking proforma
The top half details the contraindications to considered before performing the procedure and guidance for patients who are on anticoagulant and antiplatelet therapies.
Procedure specific bundles

- The bottom half provides a clear guide to the required documentation for the procedure being performed.

- Again this section can be removed and stuck into the patient notes.
Conditions Covered

- To date 18 care bundles have been developed.

- There are 17 condition specific bundles including:
  - Community acquired pneumonia
  - COPD
  - Acute coronary syndrome
  - Acute kidney injury
  - Heart failure
  - Neutropenic sepsis
  - Sepsis

- There is 1 procedure specific bundle:
  - Lumbar puncture
Getting the Word Out

- Launched together with the new Ambulatory Emergency Care Service in August 2013.

- Induction

- Handover on the Medical Admissions Unit

- During post-take ward round with the Consultants-used as educational tool to aid learning if any management points were missed if the care bundle wasn’t used.

- Intranet

- Specific slot on clerking proforma
Assessing the Impact

WHERE ARE THEY USED?

Started in August 2013, the number of bundles used to date is 934.
Audits to Date

Assessing the Impact

Retrospective audits were conducted using three specific bundles (25 sets of notes pre and post introduction were reviewed) to assess the quality of care provided.

The bundles chosen were community acquired pneumonia (CAP), acute coronary syndrome (ACS) and the lumbar puncture procedure.

Key findings:

- CAP:
  - Average length of stay reduced by 2.4 days post-care bundle introduction.
  - The management of patients with CURB 65 > 1 significantly improved, particularly sputum sampling, sending blood cultures and requesting atypical serology.
Audits to Date

Assessing the Impact

ACS:
- Risk stratification improved with more than 75% of patients have their GRACE score assessed on admission post-care bundle introduction, compared to 36% pre-care bundle introduction.
- Three times as many patients had their glucose level checked on admission post-care bundle introduction.

Lumbar puncture:
- Pre-care bundle introduction only 7% of patients had formal consent forms completed, post introduction 76% had formal consent, with improved information provided to the patient ensuring informed consent.
- Specific risks were explained in 21% of the cases pre-care bundle introduction and in 80% of the cases post-care bundle introduction.
Problems Encountered and Feedback

- Used excessively initially, complex patients with multiple co-morbidities don’t always fit into one specific bundle.

- Large amount of resistance initially-reluctant to change, tick box exercise which negates the need for doctors to think for themselves.

- Feedback after 6 months:
  - “Good tool providing clear pathways”
  - “Enable junior staff to feel more confident in their decision making”
  - “Easy to follow”
  - “Cover the protocols/standards expected”
  - “Allow for risk stratification”

  - “Lack of flexibility if more than one presenting complaint”
  - “Must ensure things are actioned and not just simply ticked on the bundle”
Conclusions

- Care bundles show a vast improvement in standard of care.

- Allow **every member** of clinical staff involved in a patient’s care to deliver consistent, evidence based care.

- Positive feedback.

- Research has shown clinical decision support leads to fewer complications, lower mortality rates and lower costs.
The Future...

- Sharing with primary care colleagues for admission avoidance.

- Potential to develop them into apps for electronic records.

- Plan to assess the impact on the complaints received after they have been in service for a year and we would look forward to sharing the data with you at a later date.
Any questions?

Thank you for listening

Posters on display for both the care bundles and the Ambulatory Emergency Care Unit, so please come and have a chat!