Taking a Cluster Approach to Addressing High Rates of Antibiotic Prescribing in Primary Care

Abertawe Bro Morgannwg University Health Board
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Summary of the Project

• Audit antimicrobial prescribing & identify practice/cluster areas for improvement.

• Improve the quality of antibiotic prescribing and minimise the risks of antibiotic resistance.

• Identify key drivers for variation between practices.

• Develop a range of innovative approaches to change current behaviour relating to prescribing & patient experience.

• Support the Welsh AMR delivery plan to reduce the number of inappropriate antibacterial prescriptions by 50% by 2020.
Demographics

Surgery 1
Surgery 2
Surgery 3
Surgery 4
Surgery 5
Surgery 6
Surgery 7
Surgery 8
Proportion of Amoxicillin prescribed for UTIs
Sept - Nov 2015 in Bridgend North Cluster

Number of prescriptions for Amoxicillin

GP surgeries

Surgery 1  Surgery 2  Surgery 3  Surgery 4  Surgery 5  Surgery 6  Surgery 7  Surgery 8

Amoxicillin used for UTIs  Amoxicillin use for other indications
Total Co-amoxiclav prescribed
Sept - Nov 2015 in Bridgend North Cluster

Number of prescriptions for co-amoxiclav

<table>
<thead>
<tr>
<th>GP surgeries</th>
<th>Number in line with guidance</th>
<th>Number outside of guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery 1</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Surgery 2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Surgery 3</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Surgery 4</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Surgery 5</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Surgery 6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Surgery 7</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Surgery 8</td>
<td>50</td>
<td>30</td>
</tr>
</tbody>
</table>

Total Co-amoxiclav prescribed:
Pyelonephritis diagnosis as a proportion of Co-amoxiclav use
Sept - Nov 2015 in Bridgend North Cluster

Co-Amoxiclav | Pyelonephritis

<table>
<thead>
<tr>
<th>GP surgeries</th>
<th>Co-Amoxiclav %</th>
<th>Pyelonephritis %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery 1</td>
<td>13.6%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Surgery 2</td>
<td>9.1%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Surgery 3</td>
<td>20.7%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Surgery 4</td>
<td>30.4%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Surgery 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery 6</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Surgery 7</td>
<td>25.6%</td>
<td></td>
</tr>
<tr>
<td>Surgery 8</td>
<td></td>
<td>21.3%</td>
</tr>
</tbody>
</table>
Proportion of Phenoxyethylpenicillin with optimal length of course
Sept - Nov 2015 in Bridgend North Cluster

Prescriptions with optimal length of course
Prescriptions with sub-optimal length of course
Trimethoprim 200mg tablets prescribed for acute UTI per 1000 PUs
Sept 15 - Nov 15 North Bridgend Cluster comparison
Lessons learned

Working with GPs...

• GPs valued data on culture and behaviour around diagnosis and antibiotic prescribing
• Less impact seen from prescribing data
• Identifying specific areas for improvement and collaboratively helping GPs to develop their own surgery specific action plans built ownership and engagement
• This collaborative approach drove progress much more effectively than the top-down direction
• Working closely with GPs built relationships and fostered MDT working
• Working at cluster level allows for effective practice comparisons & benchmarking
Prescriber benefits seen so far...

As a result of the audit...

• Prescribing cultures within each surgery were demonstrated
• Gaps in knowledge were identified and supported
• IT solutions were implemented
• Effective benchmarking with peers was established
• ABMU antimicrobial guideline summary sheets/posters have been developed and are now in every GP consultation room across the cluster
Cluster benefits seen so far...

In addition to the quality of prescribing in relation to compliance with the current ABMU antimicrobial guidelines, this project has contributed to a cluster reduction of ↓5.85% in items per 1000PUs in Quarter 4 (Jan – March 2016), compared to the same period from the previous year.

The ABMU average was ↓2.75% and the Welsh national average was ↓4.17%, over the same time period.

The next phase of this project has been to work with local patient groups and Primary Schools to raise awareness of the issues around antimicrobial resistance and the need for prudent antibiotic use.
Thank You

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