Improving asthma outcomes in the Wirral Health Commissioning Consortium (WHCC): A 12-month re-audit

A Joint Working case study between WHCC and Teva UK Limited

This is a case study of how Wirral Health Commissioning Consortium (WHCC) worked in a local joint working initiative with the Integrated Healthcare Manager from Teva UK Limited to improve asthma outcomes in registered practices.

Project rationale

According to the Practice Level Register as of the 1st April 2012, WHCC had 10,897 patients with a diagnosis of asthma. The average prevalence rate is 6.6% compared to a UK average of 5.6%. WHCC identified that over the last three years the annual average number of non-elective emergency admissions for WHCC was 255, with an approximate cost of £379,000.

WHCC wanted to explore innovations and best practice with the aim of improving asthma outcomes for patients registered to the WHCC practices.

This real-life case study compares the results of the baseline audit to the outcomes of the 12 month re-audit.

 Desired Outcomes

The objectives of this joint working initiative were:

1. To improve the clinical management and therefore the outcomes for patients over the age of 12 within participating practices of the WHCC division.

2. To achieve a 10% reduction in non-elective admissions that would release cost savings of around £35,000.

Joint Working Initiative with Teva UK Limited

In order to achieve these outcomes, WHCC worked in collaboration with Teva UK Limited as they provided:

- Project management and communication skills
- Experience of delivering health audits with the NHS
- A local Integrated Healthcare Manager and wider team to co-ordinate the initiative and be a source of contact for all stakeholders involved

Both the WHCC and Teva UK Limited abided by the relevant regulatory bodies and guidance, including the ABPI Code of Practice.
A questionnaire was compiled by WHCC and Teva UK Limited and sent to 27 local practices to assess current level of confidence in treating asthma and identify skill gaps.

The 23 practice replies received indicated that half of the clinicians did not feel confident in assessing inhaler technique and over half of their patients did not have an agreed Asthma Management Plan.

A project specification was designed to support practices in improving their asthma management and deliver better patient outcomes.

A bespoke blended learning programme was developed by Tracy Kirk at the Primary Care Respiratory Training Centre that consisted of 6 monthly face to face classroom based educational sessions and e-learning modules. In addition all participating nurses undertook 1:1 clinical mentorship where patients identified as having frequent asthma admissions were invited in for clinical assessment.

Audit methodology

**Baseline audit:**

- Practices were sent a letter from WHCC informing them of the asthma project, inviting them to take part. Interested practices were then contacted by Teva UK Limited where an authorisation form was signed and agreement obtained for the audit to commence.

- Respiratory Nurse Specialists employed by NSHI Limited and sponsored by Teva UK Limited in line with the ABPI Code of Practice for the Pharmaceutical Industry 2012 carried out baseline audits. NSHI Ltd has undertaken audits successfully in other PCTs and all services are delivered in line with the Data Protection Act 1998 and related healthcare legislation. The NSHI nurses had no involvement in the educational or clinical mentorship aspect of the project.

- Data was extracted from the GP computer systems using MIQUEST. The quality of the audit was dependent on the quality and completeness of the practice clinical data.

**12 month re-audit:**

- Practices were re-contacted and signed authorisation was obtained to allow Respiratory Nurse Specialists undertaking the re-audit, employed by NSHI Ltd, to return to the practice to re-run searches and gather 12 month comparative data in line with project requirements and 14 practices were involved in the re-audit.

- Data was extracted from the GP computer systems using MIQUEST. The quality of the audit was dependent on the quality and completeness of the practice clinical data.
**Practice Information**

<table>
<thead>
<tr>
<th>Number of practices in re-audit</th>
<th>14 (1 practiced merged with another during audit period)</th>
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<tbody>
<tr>
<td>Total practice population from re-audit practices</td>
<td>96,654</td>
</tr>
<tr>
<td>Number of patients on asthma register at time of re-audits</td>
<td>6870</td>
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</tbody>
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In WHCC, from the 14 practices included in the re-audit, the prevalence of asthma was 7.10% compared to 6.67% prevalence at the time of the original audit.

**Outcomes achieved**

(a) *Reduction in hospital admissions and associated costs*

- According to available hospital data reports there was a **reduction of 48% in hospital admissions**, in practices where re-audit took place, compared to a 28% reduction in practices that did not take part.

- Again, utilising the available hospital data reports, this equated to a **reduction in costs** for hospital admissions in practices where re-audit took place of **£59,137.68 (26%)** exceeding the original objective.

<table>
<thead>
<tr>
<th>2012 admissions</th>
<th>2013 admissions</th>
<th>Actual reduction</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit (n16)</td>
<td>227</td>
<td>153</td>
<td>74</td>
</tr>
<tr>
<td>Non audit (n10)</td>
<td>73</td>
<td>57</td>
<td>16</td>
</tr>
</tbody>
</table>

- In the majority of practices, READ coding of hospital admissions had improved.

(b) *Total costs for WHCC inpatient admissions for asthma*

<table>
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<tr>
<th></th>
<th>Audit practices (n16)</th>
<th>Non-audit practices (n10)</th>
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<tbody>
<tr>
<td>2012/13</td>
<td>£227,552.59</td>
<td>£74,590.37</td>
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<tr>
<td>2013/14</td>
<td>£168,414.91</td>
<td>£50,106.15</td>
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Joint Working
(c) Other patient outcomes observed

- 2% increase (125 patients) in patients attending an annual asthma review at re-audit
- 19% increase (732 patients) in patients who had an inhaler check performed at re-audit
- 35% reduction (150 patients) in patients with uncontrolled asthma, using >6 short acting bronchodilators in a 12 month period as a proxy measure of control

(d) Positive feedback from practice nurses

- Education was excellent
- Skills were greatly enhanced
- More confidence in dealing with more complex patients and confident with accurate diagnosis
- Better management of stepping up and stepping down of patients in line with BTS/SIGN Asthma guidelines

Benefits of Joint Working with Teva UK Limited

This project demonstrated a successful collaborative approach to address a significant issue facing the local health economy.

<table>
<thead>
<tr>
<th>Patients</th>
<th>WHCC</th>
<th>Teva UK Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Greater understanding of asthma and expectations of symptom control</td>
<td>- Increased healthcare professional knowledge and skills in asthma management</td>
<td>- Increased perception of Teva UK Limited within respiratory medicine</td>
</tr>
<tr>
<td>- Reduced likelihood of unplanned hospital admission</td>
<td>- Increased motivation of practice nurses</td>
<td>- More understanding of healthcare professional and patients’ needs</td>
</tr>
<tr>
<td>- Optimisation of treatment</td>
<td></td>
<td>- Demonstrating Joint Working capabilities for future projects</td>
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</tbody>
</table>

Joint working between Teva UK Limited and the NHS must be for the benefit of patients or the NHS and preserve patient care1

References
1. Department of Health. Best practice guidance for joint working between the NHS and the pharmaceutical industry, 1 February 2008