South Nottinghamshire CCG’s General Practice Splenectomy Vaccination Audit Report
July 2017

Introduction

Children and adults with asplenia or splenic dysfunction may have an increased risk of infection and may have a sub-optimal response to vaccination. Additional vaccinations are therefore advised for these patients. In 2016 it was identified that a young asplenic patient in Nottinghamshire, who had not received all the additional vaccinations, died from pneumococcal septicaemia.

As part of the learning following this incident, the 44 South Nottinghamshire GP practices were supported by the medicines management team in carrying out a simple audit to check the vaccination status for all their asplenic patients. Some practices also chose to audit those patients with splenic dysfunction. The audit data was collected between November 2016 and May 2017.

Recommended Vaccination Scheduling

Practices were asked to audit against the following schedule which was recommended by Public Health England based on information in The Green Book (1):

- A dose of Haemophilus Influenzae Type b (Hib) and Meningitis C (Hib/MenC)
- A dose of Meningitis A, C, W and Y (MenACWY) conjugate vaccine (at least one month after Hib/MenC)
- A dose of Pneumococcal Polysaccharide (PPV23) (and one every five years after the first)
- Two doses of Meningitis B (MenB) vaccine, at least a month apart
- Flu vaccine should be given annually

Results

<table>
<thead>
<tr>
<th>CCG</th>
<th>No of pts</th>
<th>HIB REQUIRED</th>
<th>Men C REQUIRED</th>
<th>Men B REQUIRED</th>
<th>PPV REQUIRED</th>
<th>Flu 2016 REQUIRED</th>
<th>Men ACWY REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rushcliffe</td>
<td>125</td>
<td>46 (37%)</td>
<td>48 (38%)</td>
<td>91 (73%)</td>
<td>19 (15%)</td>
<td>25 (20%)</td>
<td>76 (61%)</td>
</tr>
<tr>
<td>Nottingham North &amp; East</td>
<td>198</td>
<td>44 (22%)</td>
<td>39 (20%)</td>
<td>154 (78%)</td>
<td>57 (29%)</td>
<td>35 (18%)</td>
<td>133 (67%)</td>
</tr>
<tr>
<td>Nottingham West</td>
<td>112</td>
<td>30 (27%)</td>
<td>30 (27%)</td>
<td>72 (64%)</td>
<td>16 (14%)</td>
<td>16 (14%)</td>
<td>64 (57%)</td>
</tr>
<tr>
<td>Total</td>
<td>435</td>
<td>120 (28%)</td>
<td>117 (27%)</td>
<td>317 (73%)</td>
<td>92 (21%)</td>
<td>76 (17%)</td>
<td>273 (63%)</td>
</tr>
</tbody>
</table>
The results demonstrated that there are significant numbers of patients who have not received a full vaccination schedule following splenectomy or splenic dysfunction. This is replicated across all three South Nottinghamshire CCGs. Of particular note, was the number of patients who had not received Men B or Men ACWY vaccinations.

**Discussion**

The audit demonstrated:

- There were a number of patients at risk of harm due to incomplete vaccination schedules. These patients have been invited to attend their practice for review.
- The lack of an effective recall system for the five yearly pneumococcal vaccination. As a result, practices have been strongly encouraged and supported to implement a robust recall system.
- A number of patients have historically declined vaccinations and this will be considered in more detail during future audits.

In addition, the audit uncovered that some practices were unaware of changes in the recommended vaccination schedule. This may have impacted upon the high level of Men B and Men ACWY vaccinations not having been administered.

Working collaboratively across the three South Nottinghamshire CCGs enabled a broader and more comprehensive picture to be established.

**Limitations to the audit**

It should be noted that the audit criteria used in each CCG, whilst similar was not identical. Splenic dysfunction is a difficult condition to identify using the clinical systems used by GP practices and as a result, some patients may have been missed from the audit.

In some cases practices collected data themselves and in others the data collection was undertaken by the medicines management team.

**Future Actions and Recommendations**

- Re-audit using agreed, standardised criteria by end of March 2018.
- Include reviewing antibiotic prophylaxis and identification of patients who decline vaccination in the re-audit.
- Collaborate with secondary care to improve documentation and communication regarding splenectomy / splenic dysfunction / vaccination schedule.
- Share results and learning across local and national teams including NHS Improvement and the National Reporting and Learning System (NRLS).

**References**