Pneumococcal Immunisation Status of Children Within the Cardiff and Vale Paediatric Cochlear Implant Programme

Dr. Amanda Roberts and Amelia Fisher

Introduction

- Over 1,300 implants per year in the UK.\textsuperscript{1}
- Recipients have a \textit{lifelong} increased risk of \textit{Streptococcus pneumoniae} meningitis.\textsuperscript{2-5}
- The pneumococcal vaccination schedule is different for CI patients.\textsuperscript{4}
- Multiple changes to the vaccination schedule in recent years.
- Previous studies have shown that CI patients are \textit{often not optimally immunised} against pneumococcal meningitis.\textsuperscript{3,6}
Pneumococcal vaccination schedule for CI patients

2 months

13 months

4 months

After 24 months

13 valent PCV

23 valent PPV

Aim

To evaluate pneumococcal immunisation status of CI patients within the Cardiff and Vale CI programme.

Objectives

To determine the proportion of children optimally immunised:

a) Prior to implantation

b) At the time of audit

Sample

All 98 children who had received a CI since the Cardiff and Vale programme was established in June 1997.
Methods

- **Microsoft Excel database**
  - DOB
  - Health board
  - Date of implant surgery
  - Date and type of any pneumococcal vaccinations received.

- **Data collection**
  - GPs
  - Community paediatricians
  - Health protection nurses
  - Parents
  - Community Child Health 2000
  - PARIS.

- **Determining immunisation status:**
  - Pneumococcal vaccination flowchart audit tool
  - Historical immunisation guidance (Green books)

Results

- What proportion were optimally immunised **prior to implantation**?

- What proportion were optimally immunised at the **time of audit**?
Immunisation status prior to implantation

- Optimally immunised at implantation: 50%
- PPV23 not received: 37%
- PCV and PPV23 not received: 10%
- PCV not received: 3%

Immunisation status at the time of audit

- Optimally immunised at audit: 52%
- Require PPV23: 48%
**Key Findings**

- 14 (~14%) children had received no vaccinations.
- Half of all patients were not optimally immunised at implantation.
  - This was mostly a result of failure to administer the PPV23.
- The majority of children were not optimally immunised at the time of audit.
  - In every case, the patient required PPV23.

Failure to deliver PPV23 accounted for almost all cases of sub-optimal immunisation.

**Recommendations**

- Pneumococcal immunisation status is included on CI referral form.
- The flowchart is used to assess immunisation status as part of CI candidacy assessment.
- Include immunisation status on ChIP (Children’s Implant Profile) template.
- Any child over the age of 2 years, pre or post-op, must have immunisation status checked to ensure they have received PPV23.
- The database is updated regularly.
Thank you for listening.

References


