Vaccine Administration: Role of the Practice Nurse

Bridie Lynch, Practice Nurse, An Cheathru Rua, Co na Gaillimhe
Introduction

- The role of vaccine administration is a big part of a Practice Nurses’ day, depending on your practice population you can do a lot or a few!!

- Starting off it’s a daunting role
Objective

To administer vaccinations in accordance with NIAC Guidelines with respect to clients age, site of vaccination and needle size.

http://www.hse.ie/eng/health/Immunisation/hcp.info/guidelines/
Professional Preparation to vaccinate?

Professional Registration NMBI

- **Code - Set Standards**

- **Scope - determine competency**

Each Practice Nurse must practice within his/her own Scope of Practice and must take measures to develop and maintain the competence necessary for professional practice. (Scope of Nursing and Midwifery Practice Framework & Code of Conduct, NMBI, 2015)
Education & Training

Attendance at:

- Basic Life Support (2 yearly re-certification)
- Anaphylaxis Training & Anaphylaxis Refresher via HSE land
- Immunisation Study Day (F/D) at least once
- Immunisation updates (Half day two yearly min)
HSELAND Resources

Medicines Management
This E-Learning programme has been designed to support you in the facilitation of safe and effective use of medicines in your day-to-day practice and has been developed by the HSE. Click START to begin.

Read the Nursing and Midwifery Board of Ireland: Scope of Nursing and Midwifery Framework, 2015 before you start the programme as it is referenced throughout the programme and acts as the underpinning framework for your medicines management practice.
In Practice

Developing skills and competency as a vaccinator – the journey

Shadowing an experience vaccinator
Clinical experience in a supportive environment
Mentoring
What do we do?

- Primary Childhood Immunisations
- Seasonal Flu Vaccine
- PPV23
- Travel Vaccinations
- Pregnancy Vaccinations
- High risk Groups
Preparation

- Vaccine ordering and storage (Whose job is it?/Maintaining cold chain)

- Anaphylaxis/Emergency Plan (Having an emergency box in the room/ GP in the building)
Contraindications

- All Vaccines
  1) Anaphylaxis to a vaccine or to one of its constituents or a constituents of the syringe, syringe cap or vial (eg Latex anaphylaxis)
  2) Contact allergy to latex gloves, vaccines supplied in vials or syringes that contain dry natural rubber or rubber latex may be given

LIVE Vaccines
  1) Rotavirus not given after 8 months
  2) Pregnancy
  3) Some immunocompromising conditions due to disease or treatments
Precautions/Times we might need to delay Vaccination

- Acute severe febrile illness: Defer until recovered
- Immunoglobulin administration may impair the efficacy of MMR and Varicella vaccines
- Topical immunomodulators (Tracrolimus eg Protropic) Avoid live vaccines for up to 28 days before initiation and after completion of same
- Previous Type 111 (Arthus) hypersensitivity reaction
Conditions that are **NOT** a contraindication to immunisations

- There is a list of these on page 18 of The Guidelines for Vaccinations in General Practice (2016)
- They include things like low grade temps, family history.
- Refer to the handbook if any queries
Parental Concerns

- Give parents an opportunity to voice common concerns such as young age, pain, number of vaccines and fear of reactions
- Listen and acknowledge concerns
- Provide appropriate reassurance
- Provide extra or more detailed information if necessary – different language
Current Schedule

- We are currently running two schedules!
- Babies born on or after 1\textsuperscript{st} October 2016 are on the new schedule
  - 2 months 6in1, PCV, Men B & Rotavirus
  - 4 months 6in1, Men B & Rotavirus
  - 6 months 6in1, PCV & Men C
  - 12 months MMR, Men B
  - 13 months Hib/Men C & PCV
Old schedule

- We should be coming to the end of this now but they will still be due 12 & 13 month visits
- 2 months 6in1 & PCV
- 4 months 6in1 and Men C
- 6 months 6in1 & PCV
- 12 months MMR & PCV
- 13 months Men C & Hib (Must be given as 2 separate vaccinations!!)
On the Day: Vaccination Visit

- Introductions – establish rapport
- 5 rights- Patient, drug, dose, route, time
- GP onsite
- Written directive/prescription from GP or RNP in child's chart to administer immunisations as per PCIP is valid for 6 months. New directive/prescription needed for 12/13 month vaccines
- Outline immunisation schedule, 5 visits
- Outline potential side effects, tear off pads
- Query regarding baby’s health, no need to check temp on a well baby, consult GP if any concerns
- Answer any questions from parents

- Confirm parent has the paracetamol liq the bag at 2 & 4 month vaccines
- Prepare the vaccines
- Check vaccines with a second person (I check with parents)
- It is not necessary to wear gloves or clean the skin unless visibly dirty
- At the 2 & 4 month visits give the Rotavirus first
- Position baby for the IM injections (Pictures to follow)
- Leave 2.5 cms between two injections given in the same limb
- Safe disposal of sharps and waste
Suggested site plan when administrating two or more vaccines at same visit

<table>
<thead>
<tr>
<th>Age</th>
<th>LEFT anterolateral</th>
<th>RIGHT anterolateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 months</td>
<td>Men B (give 1st)</td>
<td>6:1 + PCV</td>
</tr>
<tr>
<td>4 months</td>
<td>Men B</td>
<td>6:1</td>
</tr>
<tr>
<td>6 months</td>
<td>PCV</td>
<td>6:1 + Men C</td>
</tr>
<tr>
<td>12 months</td>
<td>Men B</td>
<td>MMR</td>
</tr>
<tr>
<td>13 months</td>
<td>Hib/Mec C</td>
<td>PCV</td>
</tr>
</tbody>
</table>
Multiple Injection technique for children

Injections Sites
Spaced by 2.5cm

Vastus Lateralis
# Needle Size

<table>
<thead>
<tr>
<th>Patient’s age</th>
<th>Site (see illustrations below)</th>
<th>Needle length and size</th>
</tr>
</thead>
</table>
| Birth to <12 months    | Vastus lateralis muscle in anterolateral aspect of mid or upper thigh | 25 mm*  
23-25 gauge          |
| 12 to <36 months       | Vastus lateralis or deltoid muscle (depending on muscle mass)      | 25 mm  
23-25 gauge          |
| 3 years and older      | Deltoid muscle (see diagram page 17)                               | 25 mm**  
23-25 gauge          |

Use a 16 mm needle in infants under 2.5-3 kg.
Use 40 mm needle in females >90 kg, males >118 kg.
## Needle Size continued

<table>
<thead>
<tr>
<th>Orange</th>
<th>Blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 gauge 16 mm long</td>
<td>23 gauge 25mm long</td>
</tr>
<tr>
<td></td>
<td>23 gauge 30 mm long</td>
</tr>
</tbody>
</table>

**Orange and Blue Needles!**
**COMFORTING RESTRAINT FOR IMMUNIZATIONS**

- **The method:**
  
  This method involves the parent in embracing the child and controlling all four limbs. It avoids “holding down” or overpowering the child, but it helps you steady and control the limb of the injection site.

- **For infants and toddlers:**

  Have parent hold the child on parent’s lap.

  1. One of the child's arms embraces the parent's back and is held under the parent's arm.

  2. The other arm is controlled by the parent's arm and hand. For infants, the parent can control both arms with one hand.

  3. Both legs are anchored with the child's feet held firmly between the parent's thighs, and controlled by the parent's other arm.
On the Day: After administration

- Ensure child is well post administration
- Give 2.5mls paracetamol orally – 2 and 4 month vaccines
- Baby remains in the surgery for at least 15 minutes following vaccines
- Schedule next appointment
- Written information re potential side effects- tear off pads
- Inform re out of hours details if needed
- Advise to call back if any concerns
On the Day: The Paperwork

- **Documentation** – Computer, paper and immunisation passport
- All vaccine details documented – **Name, Manufacturer, Batch Number, Expiry date, Dose, Route and Site**
- Immunisation returns
Trouble Shooting

- Late Entrants
- Movers
- International Immunisation Schedule
- DNA’s
- Decliners
- Vaccine errors
Immunisation Guidelines

Immunisation Guidelines for Ireland

National Immunisation Advisory Committee - for more information including committee members see https://www.rcpi.ie/policy-and-advocacy/national-immunisation-advisory-committee/

Please check this page regularly to ensure you have the most up to date guidance.

The Immunisation Guidelines for Ireland are only available online.

Where there is a discrepancy in the recommendations in different chapters, the recommendation in the most recent chapter should be followed.

NOTE: Chapter 5 is currently being updated - in the interim please refer to WHO guidelines at http://www.who.int/ihr/en/ for guidance on yellow fever vaccine

→ Anaphylaxis (Updated 6th September 2016)
→ Changes to online chapters of 2013 Immunisation Guidelines (10th January 2014)
→ Changes to online chapters of 2013 Immunisation Guidelines (9th June 2014)
THANK-YOU