THE PRACTICE NURSE ROLE IN PRIMARY CHILDHOOD IMMUNISATION VACCINE ADMINISTRATION

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5th September 2016

OUTLINE OF ROLE OF PN IN PRIMARY CHILDHOOD IMMUNISATIONS (PCI)

1. Introduction
2. Preparation for PCI Consultation
3. PCI Consultation
4. Post PCI Consultation
5. Trouble shooting
6. Professionalism & continuing education

INTRODUCTION

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, available from NMBI).

Therefore, Practice Nurses have a responsibility to ensure that they are suitably qualified and competent to undertake all aspects of their role. The autonomous nature of practice nursing means that issues pertaining to the Scope of Practice require constant reflection and vigilance on the part of the individual nurse.

INTRODUCTION

In relation to PCI, each PN must:

- Practice according to NIAC guidelines
- Frequently revise NIAC guidelines to keep up to date
- Register for NIAC newsletters
- Communicate effectively with parents and relevant clinical colleagues
- Establish clear local/in-house guidelines
- Report and address concerns/issues to line manager/medical director

PREPARATION FOR VACCINE ADMINISTRATION

1. Competencies and practice according national/local guidelines.
2. Vaccine Ordering, storage and paraphernalia to administer.
3. Review patient chart - preparation is key to minimise errors
4. Anaphylaxis/emergency action plan
5. Patient information leaflets, http://www.healthpromotion.ie/hp-files/docs/HNI00509.pdf

THE PCI CONSULT

- Introductions – establish rapport
- 5 Rights – Patient, drug, dose, route, time
- GP on site
- Documented 6 week check-up with “fit for vaccines” note by GP along with PCI schedule prescribed by GP.
- Outline immunisations schedule – 5 visits in total (Visits 1-5 at ages 2, 4, 6, 12, 13mths)
- Outline potential Side Effects – tear off pads
- Identify any Contraindications or relevant medical information – temperature, recent illnesses, hospital admissions.
- Opportunity given to parent to ask questions
- Seek GP consult if any doubts
- Consent at 1st Visit (2mths) & 4th Visit (12mths)

CONDITIONS THAT ARE NOT CONTRAINDICATIONS TO IMMUNISATION

1. Family history of adverse reaction following immunisation.
2. Minor infections with fever <38°C.
3. Family or personal history of convulsions.
4. History of vaccine-preventable infection.
5. Prematurity or low birth weight (defer Hepatitis B vaccine in those under 2kg until 1 month of age unless there is a maternal history of HBV infection).
6. Stable neurological conditions e.g. cerebral palsy.
7. Recent contact with an infectious disease.
8. Corticosteroid treatment
    a) short term (<14 days)
    b) long-term with less than 20mg/day (0.5mg/kg/day in children <40kgs) or equivalent
    c) long-term, alternate-day treatment with short-acting preparations
    d) maintenance physiologic doses (replacement therapy)
    e) topical (skin or eyes), or by inhalation
    f) intra-articular, bursal, or tendon injection.

CONDITIONS THAT ARE NOT CONTRAINDICATIONS TO IMMUNISATION

9. Low dose methotrexate (< 0.4 mg/kg/week), azathioprine (<3.0 mg/kg/day) or 6-mercaptopurine (<1.5 mg/kg/day).
10. Asthma, eczema, hay fever, or food allergy.
11. Therapy with antibiotics.
12. Child's mother is pregnant.
13. Child being breastfed unless the mother is on immune modulators.
14. History of jaundice.
15. Recent or imminent surgery or general anaesthesia (see below).
16. Non-anaphylactic allergy is neither a contraindication nor a precaution to vaccination.

CONTRAINDICATIONS

- All vaccines:

Anaphylaxis to a vaccine or to one of its constituents or a constituent of the syringe, syringe cap or vial (e.g. Latex anaphylaxis).

If a person has had anaphylaxis caused by latex,vaccines supplied in vials or syringes that contain natural rubber should not be administered unless the benefit of vaccination outweighs the risk for a potential allergic reaction. For those with contact allergy to latex gloves, vaccines supplied in vials or syringes that contain dry natural rubber or rubber latex may be given.

- Live vaccines:

Pregnancy.

Some immunocompromising conditions due to disease or treatment (see Chapter 3

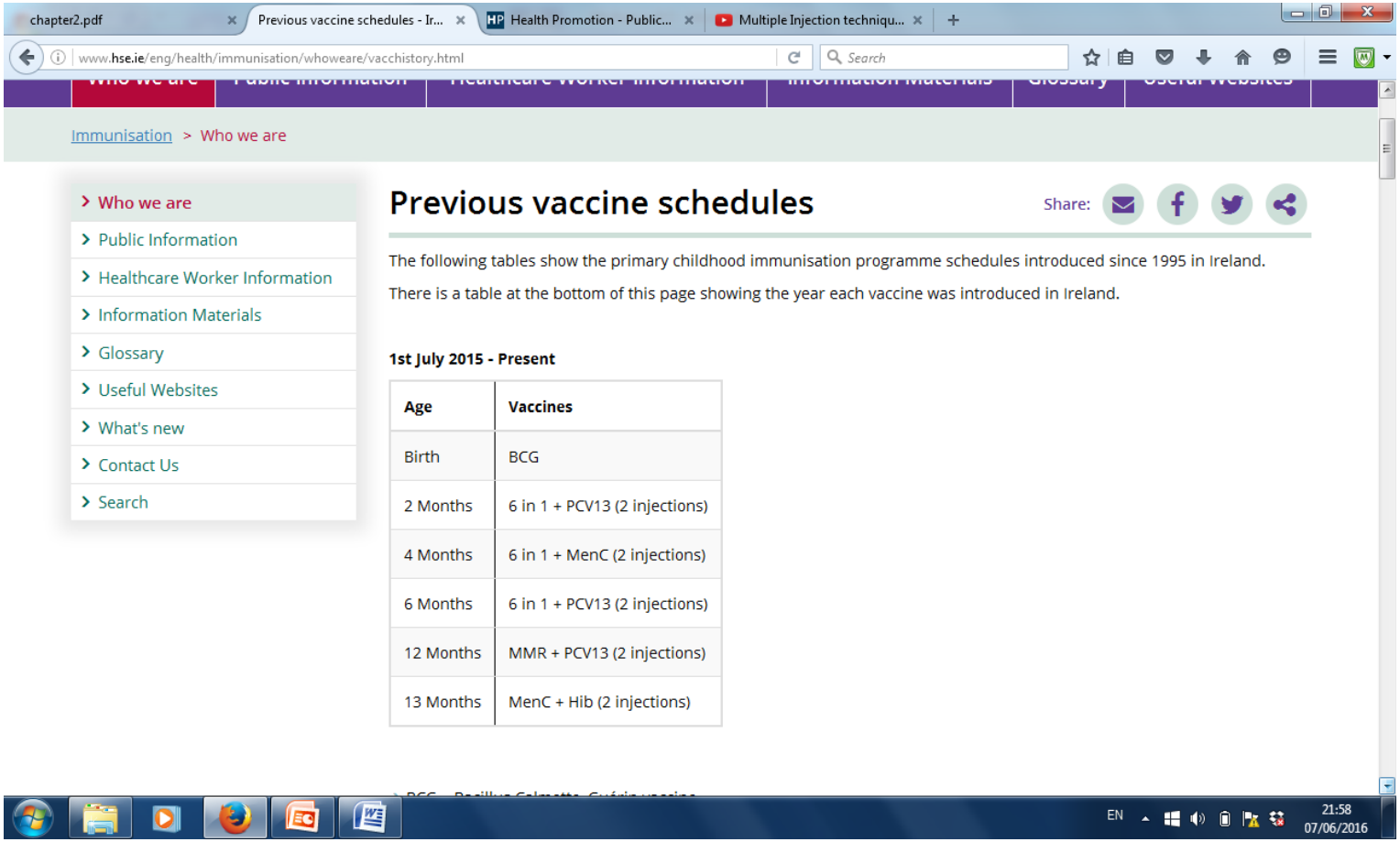
PRECAUTIONS TO VACCINES

- Acute severe febrile illness: Defer until recovery.
- Immunoglobulin administration may impair the efficacy of MMR and varicella live attenuated virus vaccines.
- Topical immunomodulators (Tacrolimus e.g. Protopic etc.) Concern for potential systemic absorption resulting in possible immune suppression has led to caution with regard to the administration of live vaccines in this setting with some avoiding live vaccines for up to 28 days before initiation and after cessation of topical tacrolimus (see Chapter 3).
- Previous Type III (Arthus) hypersensitivity reaction. These reactions are characterised by swelling and erythema of most of the diameter of the upper arm from shoulder to elbow which usually begins 2-8 hours after vaccination, are more common in adults and resolve without sequelae. They are usually associated with very high serum tetanus or diphtheria antitoxin levels. Persons experiencing such a reaction usually have a very high serum antitoxin levels; they should not be given further routine or emergency booster doses of tetanus or diphtheria containing vaccines more frequently than every 10 years.

PARENTAL CONCERNS

- Opportunity to voice common concerns such as ; young age, pain, number of vaccines and fear of reactions.
- Listen and acknowledge concerns
- Provide appropriate reassurance
- Professionalism
- Provide extra or more detailed information if necessary

CURRENT PCI SCHEDULE



chapter2.pdf | Previous vaccine schedules - Ir... | Health Promotion - Public... | Multiple Injection techniqu...

www.hse.ie/eng/health/immunisation/whoweare/vacchistory.html

Immunisation > Who we are

- Who we are
- Public Information
- Healthcare Worker Information
- Information Materials
- Glossary
- Useful Websites
- What's new
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Previous vaccine schedules

Share:

The following tables show the primary childhood immunisation programme schedules introduced since 1995 in Ireland.

There is a table at the bottom of this page showing the year each vaccine was introduced in Ireland.

1st July 2015 - Present

Age	Vaccines
Birth	BCG
2 Months	6 in 1 + PCV13 (2 injections)
4 Months	6 in 1 + MenC (2 injections)
6 Months	6 in 1 + PCV13 (2 injections)
12 Months	MMR + PCV13 (2 injections)
13 Months	MenC + Hib (2 injections)

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PCI CONSULT CTD

- Antipyretics can be administered post immunisations (especially Men B vaccine)
- May have some sucrose fluids pre immunisations
- Administer immunisations according to PCI schedule – depends on age and previous immunisations
- Check immunisations with parent against official PCI records
- IM route (stretch skin) at 90 degree angle
- Site - anteriolateral thigh
- 25mm needle
- 2.5cm apart if 2 immunisation to one limb
- The most reactogenic to be given to separate limb

RECOMMENDATIONS REGARDING PREFERRED SITE AND NEEDLE SIZE FOR INTRAMUSCULAR INJECTIONS

- Patient's age Site & Needle size (see illustrations in NIAC guidelines)
- Birth to 12 months - Vastus lateralis muscle in anterolateral aspect of mid- or upper thigh - *25 mm needle, 23-25 gauge*
- 12 to 36 months - Vastus lateralis or deltoid muscle - *25 mm needle, 23-25 gauge*
- From 3 years upwards - Densest portion of deltoid muscle – between acromion and muscle insertion - *25 mm needle 23-25 gauge*

**Note: Use a 16 mm length needle in infants under 2.5-3 kg. Use 38 mm length needle in women >90 kg, men >118 kg*

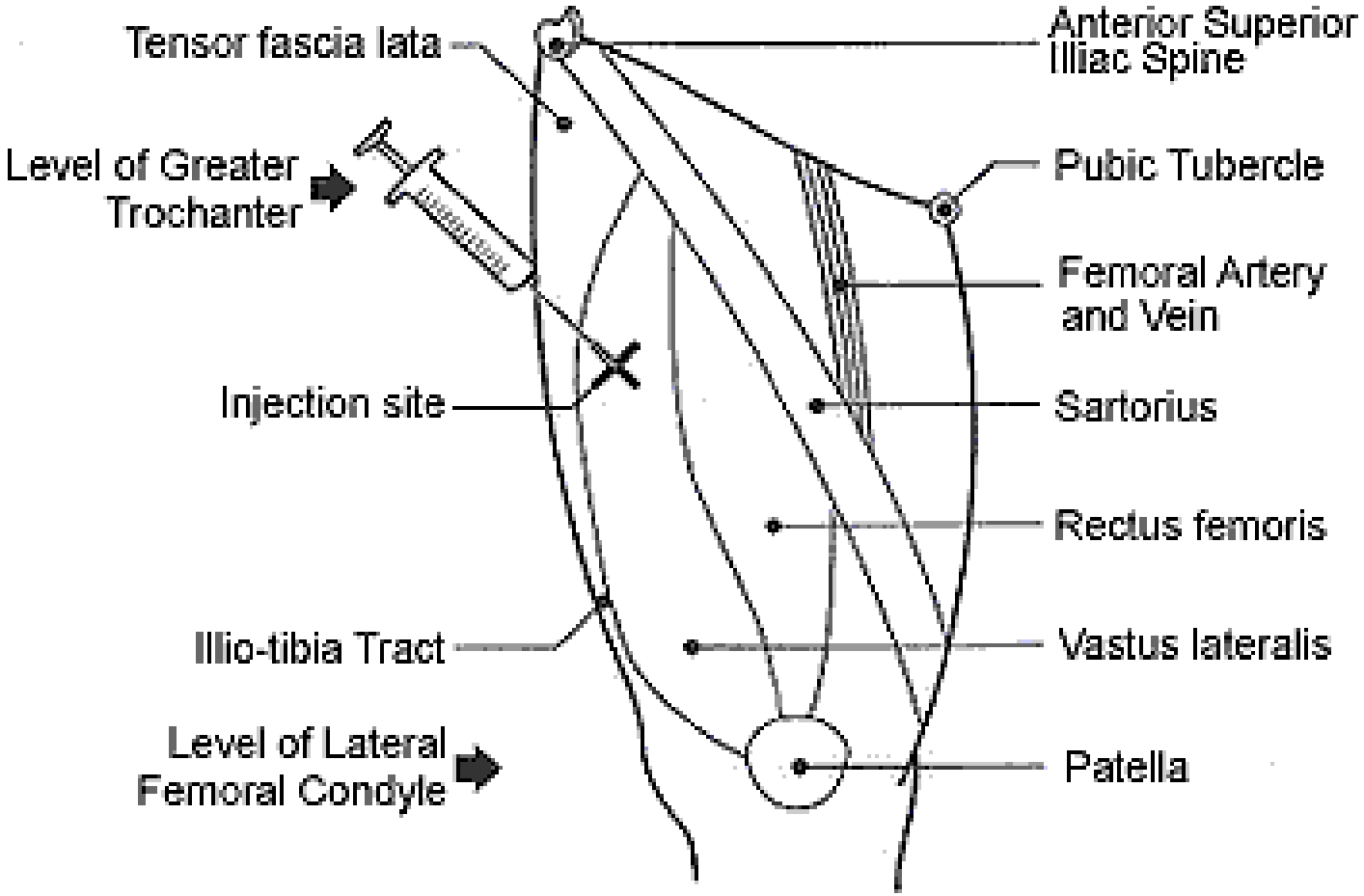
PCI HOLDING POSITION FOR INFANTS AND TODDLERS

Have parent hold the child on parent's lap.

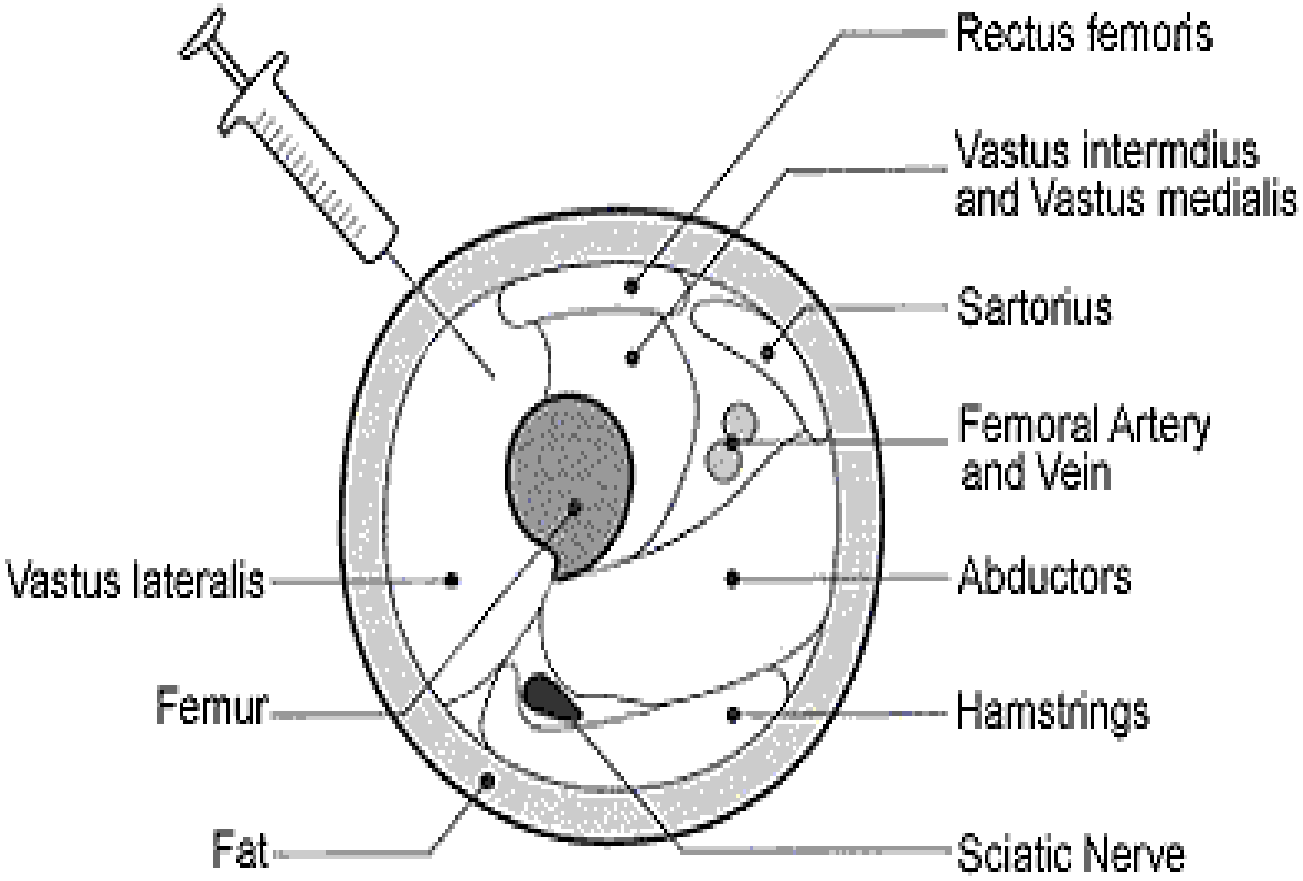
1. One of the child's arms embraces the parent's back and is held under the parent's arm.
2. The other arm is controlled by the parent's arm and hand. For infants, the parent can control both arms with one hand.
3. Both legs are anchored with the child's feet held firmly between the parent's thighs, and controlled by the parent's other arm.

PCI HOLDING POSITION FOR INFANTS AND TODDLERS

ANTERIOLATERAL SITE



CROSS SECTION OF THIGH

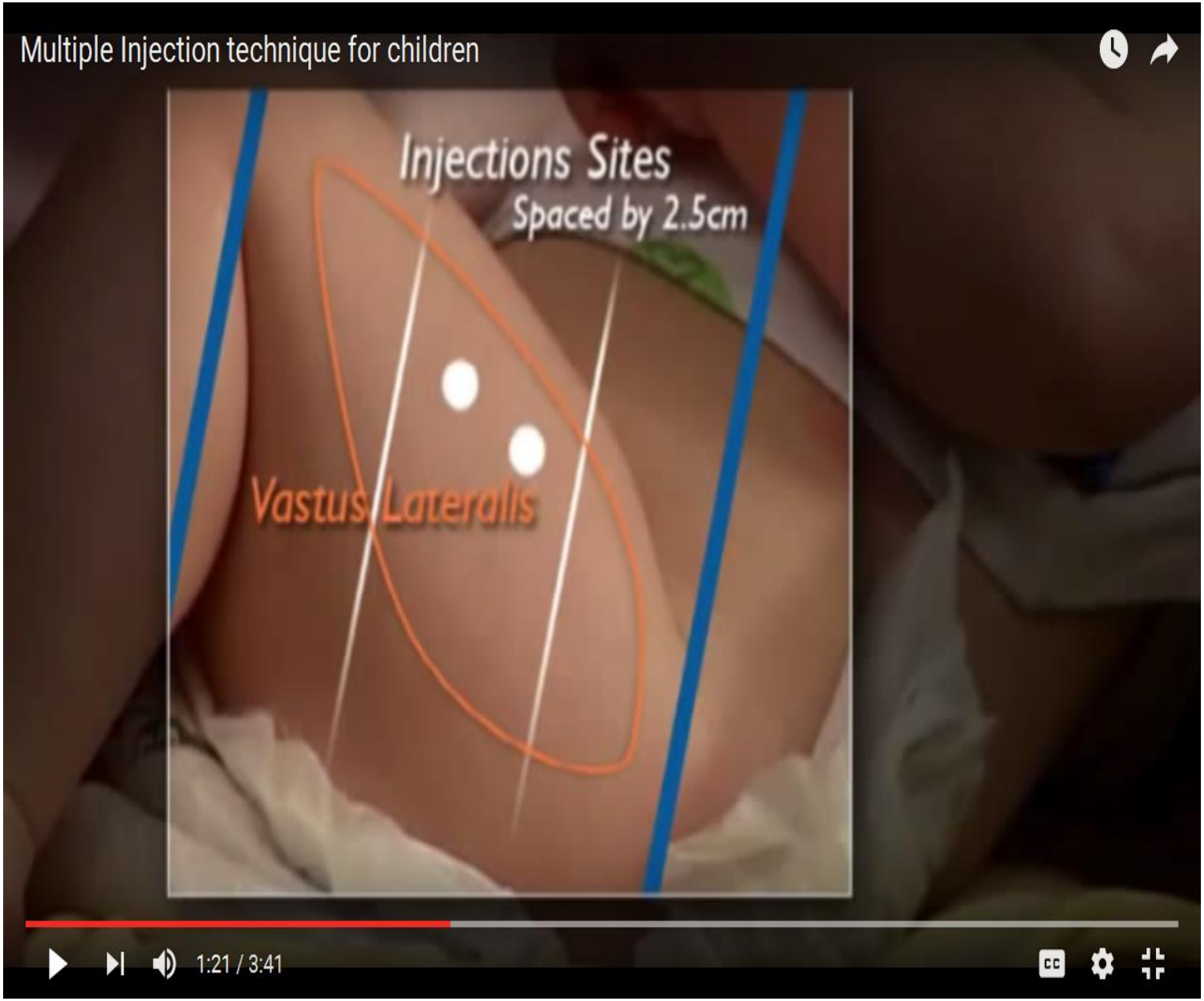


TECHNIQUE

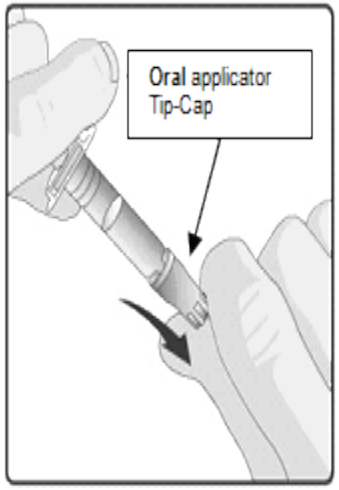
- It is not necessary to use gloves for routine intradermal, subcutaneous and intramuscular injections, unless likely to come into contact with potentially infectious body fluids or unless the health care worker has a lesion on his or her hand. If gloves are worn they should be changed for each patient.
- If the skin at the injection site is visibly dirty it should be cleaned with soap and water. There is no need to use a disinfectant e.g. alcohol swabs. If an alcohol swab is used the injection site should be allowed to dry for 30 seconds to ensure the alcohol will have evaporated.
- Spread the skin of the administration site taut between the thumb and forefinger (to avoid injecting into subcutaneous tissue and to isolate the muscle). The tissue around the injection site may be bunched up in small infants and others with little muscle mass.
- Insert the needle rapidly and fully at a 90o angle to the skin. Inject the vaccine into the muscle over 1-2 seconds. Rapidly withdraw the needle and apply light pressure to the injection site for several seconds with a dry cotton ball or gauze.
- Multiple injections given in the same limb should be separated by at least 2.5 cm.

TWO INJECTIONS IN SAME LIMB

- Common practice in Ireland until introduction of 6:1
- Infant A/L thigh can accommodate two IM injections
- Give at separate sites at least 2.5cm (I inch) apart
- Be consistent – Agree site for each vaccine in your Practice
- Record exact site at which each vaccine was given to determine if local side effects of any of the different vaccines

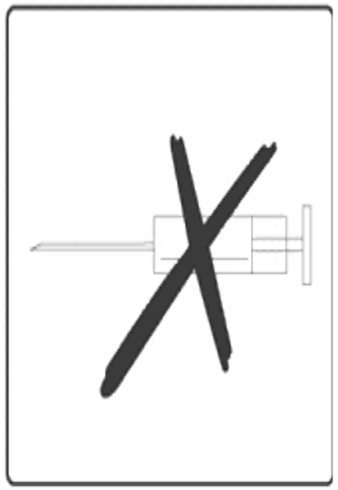

Multiple Injection technique for children
Injections Sites
Spaced by 2.5cm
Vastus Lateralis
1:21 / 3:41

ORAL VACCINE ADMINISTRATION



1. Remove the protective tip cap from the **oral** applicator.

2. This vaccine is for **oral administration only**. The child should be seated in a reclining position. Administer **orally** (i.e. into the child's mouth, towards the inner cheek) the entire content of the **oral** applicator.



3. **Do not inject.**

PCI CONSULT CTD

- Ensure child is well post immunisations – crying normal
- Advise to wait in surgery 10-20 minutes post immunisations
- Schedule next appointment and text reminders
- Written information re potential SEs – tear off pads
- Inform regarding details of out of hours services
- Open door to call if any queries

POST PCI CONSULTATION

- Safe disposal of sharps and waste
- Documentation – computer, paper and immunisation passport
- All vaccine details : Name, manufacturer, expiry date, dose, route, location and temperature of child
- DO NOT remove Immunisation from boxes – codes & safety.
- Immunisations administered Returns – electronic via administration staff
- Practice Log – ensure high uptake rates

PCIP CHECLIST

6 week check	Y/N
Prescription	Y/N
Patient Identity	Y/N
Date of Birth/Age	Insert
Schedule	01/07/2015 or 01/10/2016
Previous vaccines	Noted
Medical History +/- temp	Y/N
Any CI/Precautions	Y/N
Consent & Patient information leaflet/passport	Y/N
Check vaccines with parent	Y/N
Administer as per NIAC guidelines	Y
Remain on site 15/20 mins post vaccines	Y/N
Adverse reactions	Y/N
Dispose of sharps	Y/N

TROUBLE SHOOTING

- Late starters
- New entrants
- Movers
- International immunisation schedule
- DNAs
- Decliners
- Vaccine errors

PROFESSIONALISM & CONTINUING EDUCATION

- Resources
- Constantly need to revise guidelines
- Register for NIO newsletter
- www.immunisation.ie website – essential resource (replaces blue book)
- Key contacts in NIO

NATIONAL LEGISLATION AND PROFESSIONAL GUIDELINES FOR PRACTICE

- Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives - http://www.nmbi.ie/Standards- Guidance/Code
- http://www.immunisation.ie/en/Professionals/ImmunisationGuidelines
- Guidance to Nurses and Midwives on Medication Management 2007- http://www.nmbi.ie/StandardsGuidance/Medicines-Management
- Recording Clinical Practice: Professional guidance http://www.nmbi.ie/Standards-Guidance/More-StandardsGuidance/Recording-Clinical-Practice
- Children First: National Guidance for the Protection and Welfare of Children http://www.dcya.gov.ie

QUESTIONS???

- Later for panel