Successful strategies towards BEST Practice for vaccination

The Immunisation Advisory Centre

BEFORE	**All providers (GPs) and vaccinators need to complete a NIR Authorised User Agreement form** to access National Immunisation Register (NIR) data.
	Register babies with the practice and enrol with a PHO: Nomination messages are sent electronically by the NIR to the provider inbox.
	Check GP provider inboxes daily, 'Accept' all newborn nomination messages using the 'B' code in the patient management system.
	Send enrolment form and first immunisation appointment for the baby. Enrol as soon as possible.
	To ensure timeliness, pre-call all children at least two weeks prior to the vaccination due date.
	Use your PMS to identify children who are due or overdue for immunisations.
	Offer opportunistic vaccinations using PMS alerts. Highlight overdue immunisations.

EVALUATE	**Informed consent: Ensure person with child has parental responsibility, check their understanding** and allow time for questions. Offer appropriate, evidence-based **culturally appropriate and translated** information when available.
	Parents/caregivers have the right to decline: If they are requesting decline or opt off, work through the factsheet "OFFER information about delaying or declining immunisation". Do not record a "decline" **until the decision has been fully discussed.** Revisit this decision each time an immunisation event is due.
	Advise parent that child will be recalled at next event. Keep recalls active.
	Use a NIR "status query" to confirm vaccinations due; do not only rely on parental recall.

SAFETY	**Pre-vaccination checklist** - see Table 1, or the current Immunisation Handbook (IH).
	Appropriate emergency kit is readily available; near where vaccines are given - Table 4 and IH.
	Cold chain: ensure vaccines have been stored correctly between +2°C and +8°C. **Post vaccination information** and advice is given and resources offered - Table 2.
	Clinically assess the vaccinee and use the correct needle size, length and site - see Table 5 and IH.
	Mitigate discomfort: Research supports breastfeeding, cuddling and distraction during injection.
	Oral vaccines: Encourage the parent/caregiver to hold infant, administer rotavirus vaccine between inside cheek and gum slowly. Give before injections.
	Giving multiple vaccines at one visit is safe. When giving multiple vaccines it is important to use separate sites where possible or separate by 2-3cms if giving in same limb.
	Simultaneous injections are not recommended as best practice. If you do decide to do this then both nurses **must be present throughout the whole consent and administration process and must document what each has given.**

TIMELINESS	**Record immunisations given and future appointments in 'My Health' book** e.g. book 3 month appointment after six week appointment is completed.
	Precall and recall regularly using text messaging, letters and telephone calls out of business hours.
	Make every attempt for timely vaccination at the provider chosen by the family.
	Refer to the Outreach Immunisation Service (OIS) promptly if unable to reach families after no response to three valid types of pre-call and/or recall attempts; including casual patients.
	Ensure all children referred to OIS have correct details e.g. change of address.
	All vaccinators in primary care should be 'authorised' *– see Table 3 and IH.*

Table 1: Pre-vaccination checklist

- Run a "status query" via the PMS prn
- Obtain consent for the vaccination event, and for the information to be held on the NIR
- Advise of 20 min wait following the immunisation

Prior to immunisation, ascertain if the vaccinee:

- is unwell on that day, has a fever (if concerned, check temperature) or **has any new diagnosis**
- has ever had a serious reaction to any vaccine
- has any severe allergies to vaccine components (e.g. gelatin, egg protein, neomycin)
- has appropriate spacing between doses of the same vaccine (when was the last vaccination?)
- is pregnant or planning pregnancy
- has an undiagnosed/evolving neurological condition

Additional precautions to check prior to immunisation with a *live vaccine*, ascertain if the vaccinee:

- has lowered immunity/is on immunosuppressive drugs
- if child's mother has been on immune suppressing medication during pregnancy
- has had any live vaccines in the last four weeks
- has had an injection of immunoglobulin or blood transfusions within the last 11 months

Table 2: Post vaccination information

- Record details in the **Well Child Tamariki Ora book (WCTO)**; vaccines given, injection site, and route used
- Record the following information in the PMS:
  - vaccines given (dose and series), injection sites, route, needle length and gauge
  - informed consent obtained (i.e. from who)
  - NIR consent (vaccines given recorded on the NIR)
  - that the vaccinee was well
  - any known allergies or contraindications
  - that they were advised to wait 20 mins
  - details of any adverse event(s) following immunisation

Advice

- Advice needs to be given verbally and in writing
- Discuss expected responses and what to do
- Discuss when to contact the vaccinator or after hours medical service if worried/concerned
- Provide immunisation information and after hours contact number (e.g. Aftercare sheet HE1504 or resource appropriate for that immunisation event)
- Check the injection site prior to the vaccinee leaving

Table 3: Authorised/pharmacist vaccinator process

- Complete an approved vaccinator training course
- Pass open book assessment & clinical assessment
- Pharmacists advise PSNZ of vaccinator status
- RNs apply to medical officer of health for authorisation
- Have current indemnity insurance
- Authorisation/pharmacist vaccinator update is valid for two years, from date of initial training. Individuals are responsible for re-application after approved vaccinator update course, two yearly.

Table 4: Emergency kit

- Adrenaline 1:1000 (3 ampoules) and dosage chart
- Syringes: 1.0mL (minimum of 3) (tuberculin not insulin)
- Needles: a range of needle lengths and gauges, including 23G or 25G x 25mm, 22G x 38mm
- Range of airways, paediatric sizes if vaccinating children
- An oxygen cylinder (check that it is filled)
- Adult and paediatric bag valve mask resuscitator (e.g. ambu bag), oxygen tubing and a range of oxygen masks
- Access to a telephone

NB: A second person must be onsite at the time of vaccination and for at least 20 minutes post vaccination.

Table 5: Needle gauge and length, by site and age

Age	Site	Gauge & length	Rationale
Intramuscular injection			
Birth	Vastus lateralis	23-25 G x 16mm	
6 weeks	Vastus lateralis	23-25 G x 16 or 25mm	Choice of needle length will be based on the vaccinator's professional judgement.
3–14 months	Vastus lateralis	23-25 G x25mm	A 25 mm needle will ensure deep IM vaccine deposition
15 months – 3 years	Deltoid or Vastus lateralis	23-25 G x16mm 23-25 G x25mm	The vastus lateralis site remains an option in young children when the deltoid muscle bulk is small and multiple injections necessary
3–7 years	Deltoid Vastus lateralis[a]	23-25 G x16mm 21-22 G x25mm	A 16 mm needle should be suffcient to effect deep IM deposition in the in most children
Older children (>7 years), adolescents and adults	Deltoid[b] Vastus lateralis[a]	23-25 G x16mm or 23-25G x25mm or 21-22G x38mm 21-22 G x38mm	Most adolescents and adults will require a 25 mm needle to effect deep IM deposition
Subcutaneous injection			
Deltoid	25-26 G x16mm	Insertion angle of 45° is recommended. The needle should never be longer than 16mm to avoid or inadvertent IM administration	

[a] Consideration may be given to the vastus lateralis as an alternative vaccination site, providing it is not contraindicated.

[b] For females weighing <60kg use a 23-25 G x16mm needle; for 60-90kg use a 23-25G x25mm needle; for >90kg use a 21-22G x38mm needle. Adolescent/adult males, a 23-25G x25mm needle is sufficient.