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Protecting infants from pertussis

The primary focus of the national pertussis vaccination programme is to protect young infants against death and severe disease. Two key vaccination strategies can protect infants from pertussis and associated complications, maternal pertussis booster (Tdap) vaccination during pregnancy and on-time administration of the infant's own Immunisation Schedule vaccinations.

Boostrix® is now recommended from 16 weeks gestation in every pregnancy

In response to the published safety and immunogenicity data, PHARMAC extended the eligibility for administration of Tdap to anytime during the second or third trimesters of every pregnancy.

Administration of Tdap from 16 weeks of pregnancy allows time for the woman's immune system to produce antibody protection against pertussis. It also ensures there is enough time before birth for the antibodies to pass through the placenta into the growing baby. The level of maternal antibody in the newborn varies between mothers and babies. The antibodies are temporary but are expected to protect the newborn against severe pertussis disease for at least two months. This is the time the infant is most vulnerable before they can start their own immunisation programme. A secondary outcome of maternal Tdap vaccination may be a reduction in the risk that the woman will catch pertussis and pass it to her baby at delivery or during their first year of life.

If the vaccine is administered less than two weeks before baby's birth, there may not be adequate time for the woman's antibody levels to be boosted or for antibodies to pass onto her baby before birth. However, Tdap vaccination may still reduce the risk the woman will catch pertussis and pass it to her baby during their first year of life. Download our [Recommended and funded vaccines during pregnancy](#) fact sheet from the [Resources/Written resources](#) page on our website.

Practices that can identify their enrolled patients early in pregnancy can pre-call pregnant women for their Tdap booster vaccination at 16 weeks gestation and for their influenza vaccination at any stage of pregnancy from 1 April to 31 December each year.

Recording pregnancy vaccinations on the NIR

Please ensure that all Schedule vaccinations administered during pregnancy are recorded on the National Immunisation Register so that immunisation coverage in pregnant women can be monitored accurately.

On-time infant immunisation

The second key strategy to protect infants from pertussis and associated complications is on-time immunisation at 6 weeks, 3 months and 5 months of age. [Early newborn enrolment with general practices](#) is crucial to facilitate on-time immunisation and other health checks. Practices are encouraged to promptly accept electronic NIR newborn nominations, send a welcome letter to the parents and pre-call them for their baby's first vaccinations at 6 weeks of age. A practice pregnancy register also supports early enrolment of newborns within the first two weeks.

Boostrix® for NICU or SCBU parents or primary caregivers

Less evidence is available on the effectiveness of providing pertussis booster vaccination to adults who are around young infants. However, Tdap vaccination may reduce the risk that close contacts will catch pertussis and pass the infection on to the infant.

PHARMAC has extended eligibility for funded Boostrix (Tdap) vaccination to include parents or primary caregivers of infants:

- » who are admitted to a Neonatal Intensive Care Unit (NICU) or Specialist Care Baby Unit (SCBU) for more than 3 days, and
- » whose mother did not receive a maternal Tdap vaccination at least 14 days before the baby's birth.



For maximal pertussis antibody transfer and protection of the newborn administration of the Tdap booster vaccination is recommended:

- » from 16 weeks of pregnancy, and
- » preferably within the second trimester.

UPDATED National Standards for Vaccine Storage and Transportation for Immunisation Providers 2017 (2nd Edition)

The Ministry of Health have published the National Standards for Vaccine Storage and Transportation for Immunisation provider 2017 (2nd edition). The second edition includes minor updates and clarification of the National Standards. It is not anticipated that the CCA documentation will require large changes. Providers and assessors are asked to continue to use the 2017 forms in the meantime.

The updated National Standards can be accessed through the Ministry of Health cold chain webpage at www.health.govt.nz/coldchain. They can also be downloaded from our website with a [Summary of changes to the National Standards for Vaccine Storage and Transportation for Immunisation provider 2017 \(2nd edition\)](#).



COLD CHAIN MATTERS ...



When the power goes off

All immunisation providers must have a cold chain process and equipment for ensuring safe temporary storage of vaccines if a power outage occurs, including a nominated back-up provider.

Vaccines do not automatically have to be transferred out of the refrigerator into a chilly bin when the power goes out. However, it is important to monitor the temperature and to respond to temperature changes with the aim of keeping the vaccines within the cold chain i.e. + 2°C to + 8°C at all times.

The following practices are recommended when a power outage occurs:

- Keep the refrigerator door closed.
- Use an external digital minimum/maximum thermometer or data logger with a visual display and probe to monitor the internal refrigerator temperature.
- Tape cardboard from a flattened box across the front of glass refrigerator doors to help reduce temperature loss from inside the refrigerator.
- If possible, contact the power company or electrician to determine when the power is likely to be reconnected.
- If the internal refrigerator temperature rises above +7.5°C, seek alternative storage as described in your provider cold chain policy. Doing this before your fridge reaches +8°C ensures you have time to take action.
- If the internal temperature of the refrigerator falls below +2°C at any time, remove the vaccines and place them in alternative storage as described in your provider cold chain policy.
- If the power outage is widespread, such as across the region or city, contact your Immunisation or Cold Chain Coordinator before moving vaccines as there will need to be a priority system for back-up vaccine storage.

Providers in areas regularly affected by power outages, should consider using an uninterruptable power supply device, for example a generator.

Uninterruptable power supply (UPS) systems

If you have purchased an Uninterruptable Power Supply (UPS) system for your refrigerator please check it is compatible. The power output of some UPS systems IS NOT compatible with pharmaceutical refrigerators in New Zealand. If you need to know more please check out www.rollexmedical.co.nz/upsinfo.

Digital minimum/maximum thermometers

Recently, a provider noticed that their refrigerator temperature display was not showing correctly. They were not able to get the display checked or fixed on the day. Their data logger did not have a visual display or probe. The only way they could check the daily minimum/maximum readings was by downloading the logger data every day the fridge display was malfunctioning or by using an external digital minimum/maximum thermometer.

We recommended a separate digital minimum/maximum thermometer is set up to monitor the vaccine fridge. Each day, when you check the fridge display temperatures, also check the minimum and maximum temperatures on the separate thermometer. These temperatures do not need to be recorded unless there are concerns. Reset the separate min/max thermometer each day after checking it.

- The digital thermometer provides a visual back-up temperature monitor.
- You can monitor three areas of the fridge constantly – top, middle and bottom.
- If the power goes off, it is already monitoring the fridge temperature visually.
- If you need to transport vaccines, it is ready and working (and you don't have to search for it).
- You and your team are familiar with operating it if the power goes off or you need to use it to transport vaccines.
- If the data logger failed at the same time as the fridge display, your practice will still have a record of the daily minimum/maximum temperatures.

For more information visit the cold chain pages on our website, www.immune.org.nz/health-professionals/cold-chain, and the Ministry of Health website, www.health.govt.nz/coldchain.

from the phones

Addressing some of the questions we receive on the 0800 IMMUNE phone line

Catch-up immunisation

What do you need?

- Know the person's age and their date of birth.
- Appendix 2 in the current Immunisation Handbook.
- Completed NIR status query.
- Documented vaccination history.
- If it isn't documented, assume it wasn't done.
- People mean well but they don't always get it right.
 - A 78-year-old man assured the PN he had had 'everything' including MMR as a child but just wanted to check he didn't need another MMR because of the measles outbreak.
- A 24-year-old woman insisted she had been vaccinated against hepatitis B and hepatitis C when she was an adolescent.

Hint: MMR had not been developed when he was a child.

Hint: Hepatitis C vaccine has not been developed yet.

GET THE FACTS ON IMMUNISATION

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