



5 June 2019

## **Submission on the Proposal to widen access to pertussis vaccine**

Feedback from: New Zealand College of Midwives  
PO Box 21-106  
Christchurch 8143  
(03) 377 2732

---

The New Zealand College of Midwives is the professional organisation for midwifery representing employed and self-employed midwives. There are more than 3000 midwives who hold an Annual Practising Certificate (APC) in New Zealand providing maternity care to, on average, 60,000 women and babies each year. The College offers information, education and advice to women, midwives, district health boards, health and social service agencies and the Ministry of Health regarding midwifery and maternity issues. Midwives interface with a multitude of other health professionals and agencies to support women to achieve the optimum outcome for their pregnancies, health and wellbeing.

---

5 June 2019

**Submission to Pharmac in relation to the  
proposal to widen access to pertussis vaccine**

[Consult@pharmac.govt.nz](mailto:Consult@pharmac.govt.nz)

This is a submission in response to the proposal to widen access to funded pertussis vaccine for all pregnant women at any time during their pregnancy and for parents of babies admitted to a Neonatal Intensive Care Unit or Specialist Care Baby Unit for more than 3 days.

**Introduction**

Midwives provide antenatal care in the community to the majority of pregnant women from the first trimester of pregnancy (Ministry of Health, 2019). Community midwives build a relationship of trust and work in partnership with women, with informed decision making important to ensuring appropriate and supportive care.

The Ministry of Health currently recommend that women are immunised during pregnancy for influenza and pertussis. Midwives currently refer women to community pharmacies, the woman's GP practice or other DHB services such as ante-natal clinics for these immunisations. The Ministry of Health (MOH) currently recommend that pregnant women are immunised against pertussis between 28 and 38 weeks gestation (third trimester of pregnancy). The Boostrix medsafe datasheet only identifies safety data for women given Boostrix during the third trimester of pregnancy stating there is insufficient data to support using Boostrix during the first and second trimester.

**Increasing maternal and neonatal antibodies**

Providing access to the pertussis vaccine during pregnancy has been found to increase maternal anti-pertussis antibodies which pass through the placenta to the newborn. The optimal concentration and effectiveness of maternal anti-pertussis antibodies in the newborn have not been determined although higher levels of antibodies have been identified following pregnancy immunisation (Centers for Disease & Prevention, 2013). Immunisation administration during the third trimester provides the highest concentration of maternal antibodies and hence better protection for the baby. Administration between 28 weeks and 38 weeks (as per MOH recommendation) supports the maternal antibody response and passive antibody transfer. Whilst we are aware of one study reviewing second or third trimester administration of the pertussis vaccine (Eberhardt et al., 2016), we consider that further research is required to identify whether administration earlier in pregnancy provides similar effectiveness.

## Widening access to pertussis vaccine to earlier in pregnancy

It seems that access to pertussis is being widened to support passive antibody transfer in the pre-term baby and we appreciate and support the need to provide improved immunity in the preterm newborn. The main concerns for the College for this proposed change relate to evidence of safety with the current proposal suggesting the vaccine can be given at any time during pregnancy and maximising placental anti-pertussis antibody transfer in order for the vaccine to provide effective protection for newborns.

We have not identified any studies demonstrating safety of administration during the first trimester of pregnancy. This is a crucial time of development and there is potential for teratogenic effects in response to medications, vaccinations and other external toxins.

In the absence of evidence of safety we consider that there should be more specific guidance identifying that the vaccine should only be provided in the second or third trimesters of pregnancy. This would provide support for women to have earlier immunisation if they are at risk of a preterm birth (after 24 weeks gestation) without increasing the risks of administration of medicines within the first trimester. As maternal anti-bodies will reduce over time post administration, delaying administration until the second trimester would also support greater newborn anti-body concentrations, in comparison with vaccines administered in the first trimester.

If there is acceptance that pertussis be administered within the **second** as well as the third trimester of pregnancy, we respectfully request that the College be involved in drafting guidance to the maternity community on identifying women at risk of pre term birth and the administration of pertussis vaccine.

Yours sincerely



Lesley Dixon  
**Midwifery Advisor**  
**Practice & Research**

### References

- Centers for Disease, C., & Prevention. (2013). Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) in pregnant women--Advisory Committee on Immunization Practices (ACIP), 2012. *MMWR. Morbidity and mortality weekly report*, 62(7), 131-135.
- Eberhardt, C. S., Blanchard-Rohner, G., Lemaître, B., Boukrid, M., Combescure, C., Othenin-Girard, V., . . . Siegrist, C.-A. (2016). Maternal Immunization Earlier in Pregnancy Maximizes Antibody Transfer and Expected Infant Seropositivity Against Pertussis. *Clinical Infectious Diseases*, 62(7), 829-836. doi:10.1093/cid/ciw027
- Ministry of Health. (2019). *Report on Maternity 2017*. Retrieved from Wellington: <https://www.health.govt.nz/publication/report-maternity-2017>