Australian Government Department of Health

AUSTRALIAN TECHNICAL ADVISORY GROUP ON

IMMUNISATION (ATAGI) CLINICAL ADVICE

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# ATAGI CLINICAL ADVICE FOR IMMUNISATION PROVIDERS REGARDING MATERNAL VACCINATION THROUGH THE NATIONAL IMMUNISATION PROGRAM (NIP)

It is important to read this statement in conjunction with the current online version of The Australian Immunisation Handbook available on the [Immunise Australia](http://immunise.health.gov.au/) website.

## Key points

* From 1 July 2018, pertussis containing vaccines (given as diphtheria-tetanus-acellular pertussis, dTpa) will be available through the NIP for women in each pregnancy.
* The pertussis vaccine should be given as a single dose during the third trimester (preferably between weeks 28 and 32).
* A seasonal influenza vaccine for pregnant women in each pregnancy will continue to be made available through the NIP.
* Influenza vaccine can be given as a single dose at any time during pregnancy, preferably prior to the onset of the influenza season.
* Vaccination of pregnant women provides protection to the mother.
* In particular, the risk of complications from influenza increases in pregnancy as does the potential for preterm delivery.
* Vaccination of pregnant women also provides protection to the newborn baby.
* This occurs by passive transfer of antibodies from mother to baby across the placenta during the pregnancy.
* This helps protect very young infants, who are at high risk of severe disease from both pertussis and influenza in the first few months of life.
* High levels of maternal antibody give temporary protection up until the time that babies can be vaccinated themselves.
* Vaccination of pregnant women with pertussis and influenza vaccines is safe.
* Pertussis and influenza vaccines can be given at the same visit during pregnancy, if needed.

## General recommendations

* Immunisation providers should encourage pregnant women to receive pertussis and influenza vaccines. Women are more likely to be vaccinated if their health care provider specifically recommends it.
* Antenatal **pertussis vaccination** is primarily aiming for protecting the baby against pertussis:
* Vaccination during pregnancy has been shown to reduce pertussis disease in infants aged <3 months by 91%.
* Protection against pertussis disease for newborn infants is achieved via the transfer of maternal antibodies across the placenta during pregnancy; the highest levels of infant pertussis antibodies are achieved when vaccination occurs early in the third trimester.
* The vaccine shouldn’t be delayed until too close to birth because:
  + - Maternal pertussis antibodies do not peak until approximately 2 weeks after vaccination,
    - Some women may give birth before they reach full-term.
* Antenatal **influenza vaccination** is recommended to protect both the mother and the baby from influenza and its complications:
* Vaccination during pregnancy is estimated to reduce the risk of influenza in infants aged <6 months by about half.
* Infants born to mothers who contract influenza during pregnancy are at higher risk of preterm birth and low birth weight.
* Pregnant women are at higher risk of complications from influenza compared with non-pregnant women, including being twice as likely to require hospitalisation.
* Vaccination with pertussis and influenza vaccines during pregnancy is safe for both the mother and her baby.
* There is no evidence of an increased risk of adverse pregnancy outcomes (such as stillbirth, low birth weight, pre-eclampsia, or neonatal renal failure) related to pertussis or influenza vaccination during pregnancy.
* Expected adverse events, like injection site reactions and fever, do not occur more frequently in pregnant women than in non-pregnant women:
* Approximately 70% of women vaccinated with pertussis experience mild injection site reactions; fever is rare and occurs in about 5% of vaccinated women.
* Approximately 10% of women vaccinated with influenza vaccine experience mild injection site reactions; fever, fatigue, muscle aches and other more general reactions are even less frequent.

## Specific recommendations

* **Pertussis vaccination** should ideally be given **early in the third trimester, between 28 and 32 weeks of gestation**, of each pregnancy, including pregnancies which are closely spaced.
* If the vaccine has not been given by 32 weeks of gestation, it should still be given at any time up to delivery.
* If the vaccine is given before the third trimester, a repeat dose during that same pregnancy is not required.
* For any pregnancy where antenatal vaccination does not occur, vaccination during the post-partum period, preferably as soon as possible after delivery, may still provide a benefit. This will reduce the likelihood of pertussis occurring in the mother and give some indirect protection to the infant. However, this is not as effective as antenatal vaccination.
* **Influenza vaccination** can be given at any time during each pregnancy, preferably prior to the onset of the influenza season.
* If a pregnancy overlaps two influenza seasons and the woman has already received influenza vaccine in the prior season, she can also receive the current season vaccine later in pregnancy.
* An influenza vaccine can be given at any time during the year, not just prior to the influenza season.
* The influenza vaccine can be given at the same time as the pertussis vaccine during pregnancy.

Table 1. Vaccines available for maternal vaccination

| Maternal vaccination | Vaccine available |
| --- | --- |
| **Pertussis** | For adolescents or adults is available in combination with diphtheria and tetanus as dTpa vaccine. Two vaccines are available:   * Adacel® (Sanofi-Aventis) * Boostrix® (GlaxoSmithKline) |
| **Influenza vaccines[[1]](#footnote-1)** | All QIVs used in Australia are inactivated vaccines and are safe for use in pregnant women. For 2018, three vaccines are available for use through the NIP for pregnant women:   * FluQuadri® (Sanofi) – for all pregnant women * Fluarix Tetra® (GlaxoSmithKline) – for all pregnant women * Afluria Quad® (Seqirus) – only for use in pregnant women aged ≥18 years |

1. Another QIV, Influvac Tetra® (Mylan), is not free for pregnant women under the NIP. However, this vaccine is also suitable for use in pregnancy. [↑](#footnote-ref-1)