



Government of **Western Australia**  
Department of **Health**

# Influenza and Pertussis Vaccinations for Pregnant Women

## **Title: Influenza and Pertussis Vaccinations for Pregnant Women**

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### **1. Purpose**

The purpose of this Operational Directive is to advise Department of Health (DoH) staff that all pregnant women should be offered influenza vaccination and pertussis-containing vaccine (dTpa) as part of routine antenatal care.

### **2. Background**

**Influenza Vaccine** - The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) continues to strongly endorse routine vaccination of all pregnant women against influenza.<sup>1</sup> This endorsement supports existing recommendations of the National Health and Medical Research Council and the Australian Technical Advisory Group on Immunisation.<sup>2,3</sup>

Preventing influenza during pregnancy is an essential part of antenatal care because pregnant women are at increased risk of serious illness due to influenza.<sup>4</sup>

Excess morbidity and mortality in pregnant women with influenza compared with non-pregnant women of similar age with influenza has been well documented.<sup>5,6</sup>

The safety of influenza vaccination during pregnancy is well established; no study to date has shown an adverse consequence of inactivated influenza vaccine in pregnant women or their offspring.<sup>7,8,9</sup>

Active placental transfer of maternal antibodies makes influenza vaccination during pregnancy a highly effective measure to protect infants from influenza during the first 6 months of life.<sup>10,11,12</sup>

Both maternal and infant benefit is now proven, with one case of serious maternal or infant respiratory illness prevented for every 5 pregnant women who are vaccinated.<sup>1</sup>

#### **Pertussis Vaccine**

The Australian Technical Advisory Group on Immunisation Practices recommends pertussis-containing vaccine (dTpa) be given as a single dose during the third trimester of each pregnancy. Administering pertussis vaccine to pregnant women has been recommended in the United Kingdom and United States since 2012.

Pertussis vaccination during pregnancy has been shown to be more effective in reducing the risk of pertussis in young infants than vaccination of the mother post partum. This added benefit is due to direct passive protection of the newborn by transplacental transfer of high levels of pertussis antibodies from the vaccinated woman to the fetus.

Vaccination is recommended with each pregnancy to provide maximal protection to every infant; this includes pregnancies which are closely spaced (e.g. <2 years). Vaccine-induced pertussis antibodies wane over time and the protective antibody level required in newborn infants is unknown. It is therefore possible that if a mother is not revaccinated during a subsequent pregnancy (even if closely spaced), her newborn will not be adequately protected against severe pertussis illness.

Studies have found no evidence of an increased risk of adverse pregnancy outcomes (such as stillbirth, pre-eclampsia, fetal distress, low birth weight or neonatal renal failure) related to pertussis vaccination during pregnancy. While dTpa vaccine is generally safe and well-tolerated in adults, there is a small risk that significant injection site reactions following subsequent doses might occur in some women who receive dTpa vaccines during successive closely spaced pregnancies. This low risk is considered to be balanced by the benefit to each infant of protection against pertussis.

### **3. Principles**

In recognition of the benefits of protecting pregnant women and their newborns against influenza and pertussis the Department of Health recommends that all pregnant women should be offered influenza and dTpa vaccination as part of routine, comprehensive, antenatal care.

Influenza vaccination should ideally occur before the start of the influenza season, regardless of gestational age, but unvaccinated pregnant women can be immunized at any time vaccine is available. Influenza vaccine for the forthcoming season is usually available beginning in March-April of each year. The influenza vaccine can be administered to women during any stage of pregnancy, and while breast feeding.

As pertussis antibody levels do not peak until approximately 2 weeks after vaccination and active transport of maternal antibody to the fetus occurs predominantly from 30 weeks gestation onwards, the optimal time for dTpa vaccination is early in the third trimester (between 28 and 32 weeks). However, the vaccine can be given at any time during the third trimester up to delivery.

Pregnant women can be vaccinated with pertussis-containing vaccine and influenza vaccine at the same time during pregnancy, or at separate visits. To be optimally protected from influenza, women should get the influenza vaccine when it is available between March and July regardless of the trimester of pregnancy; however, vaccination with pertussis vaccine should wait until the third trimester.

Registered Nurses, Midwives, and Enrolled Nurses, are authorised to administer influenza vaccine and pertussis vaccine (dTpa) under the direction of the medical practitioner responsible for the care of the patient, in accordance with existing institutional antenatal care policies.

Patient education materials regarding influenza and pertussis vaccination in pregnancy are available from the Department of Health and can assist you in obtaining informed consent (Appendix 1-2).

#### 4. Obtaining influenza and pertussis vaccines for use in antenatal care

Government-procured influenza and pertussis-containing vaccines (dTpa) are offered at no cost to all pregnant women in Western Australia.

To receive influenza and/or pertussis vaccine, pregnant women should visit their local doctor, antenatal clinic or their immunisation provider (e.g. community health immunisation clinics). It is important to note that although the vaccines are provided at no cost, a consultation fee may apply in private practice.

#### 5. Reporting requirements

To comply with quality assurance monitoring, all WA Department of Health facilities must ensure that vaccines administered to pregnant women in antenatal clinics are recorded on the *Antenatal Vaccination Authorisation and Consent Form* (Appendix 3) and faxed to CDCD 08 9388 4877. Vaccines administered to pregnant women in antenatal clinics should also be recorded in the patients hand held antenatal care record and the facility's electronic patient record database, if there is one.

Private hospitals and clinics, including GP and Obstetrician practices, are requested to fax the *Antenatal Vaccination Follow-up Form* (Appendix 4) provided to them to CDCD at fax number: 08 9388 4877.

#### 6. Ordering vaccines

Orders for influenza and pertussis vaccine for pregnant women can be placed via the on-line vaccine ordering system at <http://dhswnonline.csldirect.com.au>

WA Department of Health facilities that do not have access to the on-line ordering system can telephone the Communicable Disease Control Directorate on 9388 4835.

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