”Recommendation for pertussis vaccination in pregnancy for the Czech Republic”
Amendment to the National pertussis immunisation strategy
8 December 2015
National Immunization Committee
http://www.mzcr.cz/Verejne/dokumenty/doporuceni-narodni-imunizacni-komisenikopro-ockovani-tehotnych-zen-proti-per_11107_1985_5.html

Pertussis (whooping cough) is an acute bacterial infectious disease caused by *Bordetella pertussis*. It is a highly infectious disease, with strictly interhuman transmission. Since the 1980s, cases of pertussis are on the rise in developed countries in all age groups. The elevated incidence of this disease in adolescents and adults increase the risk for the smallest children. When infected, the unvaccinated or not fully vaccinated small children are at the highest risk of developing severe or even fatal complications.
The reported data show a long-term upward trend in pertussis in the Czech Republic. In 2014, the reported overall incidence of pertussis was 23.98/100 000 population (i.e. 2521 cases). Similar numbers of cases have not been recorded since 1963.
The upward trend in pertussis in the general population is also reflected in the increased number of cases in the smallest children, including hospital admissions and pertussis-related complications.
The main purpose of giving the pertussis vaccine in pregnancy is to protect the smallest children by enhancing the transfer of maternal specific antibodies to the fetus through placenta and breast milk. An adequate level of maternal antibodies is considered to be the most important factor in the protection from infection in neonates and infants before vaccination. Most women of childbearing age have received a pertussis vaccine in their childhood, but neither vaccine nor post-infection immunity provides lifetime or at least long-term protection. Pertussis vaccination in the last trimester of pregnancy temporarily increases the level of protective maternal antibodies which are passed transplacentally from the mother to the fetus since pregnancy week 30, and with the pertussis vaccine received in the third trimester of pregnancy, the highest concentrations of maternal antibodies are transferred. Moreover, maternal antibodies provide passive protection to the child during the first two to three months of life before he/she can be vaccinated against pertussis. By giving the vaccine in pregnancy, higher levels of specific antibodies in breast milk are achieved in comparison with maternal vaccination after delivery. Another purpose of vaccination in pregnancy is to induce protection in mothers, thus reducing the risk of infection transmission to unvaccinated neonates and infants. No increase in post-vaccination adverse reactions has been reported in either mothers in the third trimester of pregnancy or children.

Recommendation for pregnant women:
A single dose of diphtheria-tetanus-pertussis vaccine (Tdap, a vaccine containing the **t**etanus toxoid, reduced quantity of **d**iphtheria toxoid, and **a**cellular **p**ertussis component) is recommended to be given in pregnancy, ideally in the third trimester, between pregnancy weeks 28 and 36.

In women who did not receive the pertussis vaccine in pregnancy, a single dose of Tdap is recommended to be given immediately after delivery to minimise the risk of infection transmission to the neonate.

Vaccines registered for use in pregnancy:
Adacel, Boostrix

Administration:
The vaccine is given intramuscularly in the upper arm (deltoid muscle).

The vaccination date shall be noted in the pregnancy health record card as well as in the health records kept by the general practitioner the mother is registered with.