## **Boostrix vaccine uptake in pregnancy**

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In 2012 there were 458 cases of whooping cough in Ireland. Most of these cases were in children under the age of six months, who are most likely to be hospitalised and are too young to be fully vaccinated. Unfortunately two babies died as a result of whooping cough in 2012. Since then the number of cases of pertussis has declined with 117 cases in 2015. Thirty four of these cases were less than six months of age. 79% of those hospitalised were less than two months. No deaths were reported in 2015.

Since 2013 the HSE have recommended that the pertussis vaccine (Boostrix) be offered to all pregnant women between 27 and 36 weeks pregnant.

Vaccination of pregnant women with Boostrix is expected to provide some protection to infants from pertussis until they are old enough to be vaccinated themselves.

The vaccine needs to be given in every pregnancy so that there is maximum transfer of maternal antibodies. Recent studies show maternal antibodies to pertussis decline and so will not provide protection in subsequent pregnancies. Maximum antibody response occurs in the first month after vaccination, with substantial antibody decay after one year. Boostrix can be given at any stage of pregnancy, although it may be less effective in providing passive immunisation.

The vaccine is safe to be given in pregnancy. The MHRA study of 20,000 vaccinated women found no evidence of risk to pregnancy or babies. Half a million women in the UK have been vaccinated with no safety concerns identified. The most common adverse effects include injection site reaction and a mild generalised reaction of fever and fatigue for up to 48 hours after receiving the vaccine.

In the Southeast region it is not routinely advised to give boostrix by three of the four hospitals during antenatal appointments so it is important that GPs offer this vaccine to patients.

In the first cycle of the audit a four month period between the 1<sup>st</sup> July to the 31<sup>st</sup> October 2015 was looked at retrospectively. There were 68 pregnant women during this period who were between 27 and 36 weeks gestation. Thirty seven women were given the boostrix, 9 were offered boostrix but declined and 22 were not offered the boostrix vaccine. This resulted in 67.64% of women being given or offered the vaccine.

During the intervening four months information was given to GPs in the practice. The HSE whooping cough leaflet was printed to give to all pregnant women and HSE posters were put up in the waiting room.

The second cycle of the audit was from the 1<sup>st</sup> February to the 31<sup>st</sup> May 2016. During this period there were 64 pregnant women who were between 27 and 36 week gestation. Thirty one were given the boostrix, 22 were offered the boostrix vaccine, but declined, and 11 were not offered the boostrix. The number given or offered the vaccine was 82.8%.

There was a significant improvement in the number of vaccines given during the audit from 67.64% to 82.8%, however there is still room for improvement. It is not possible to compare the figures in this audit to national figures. The National Immunisation Office was unable to give the number of boostrix given to pregnant women nationally, as there is no payment to GPs for administration of the vaccine and therefore there is no way to record uptake of the vaccine.