Rotavirus
Pertussis vaccines in pregnancy
Vaccine Information

Dr Lucy Jessop
Director
National Immunisation Office

www.immunisation.ie
Rotavirus

- Rotavirus is a highly infectious virus which causes gastroenteritis and is the commonest cause of gastroenteritis among young children.

- Infections are often recurrent.

- Most children will experience 1 or more rotavirus infections by 5 years of age.

- The gastroenteritis usually lasts from 3 to 8 days and can cause dehydration. This can be very serious, especially in young infants, who may require hospitalisation for intravenous rehydration.
Rotavirus vaccine

• Introduced in July 2013 in the UK
• Given at 2 and 3 months of age
• Uptake England 90%, NI 94% (2017-18)

• Introduced in Ireland Oct 2016
• Given at 2 and 4 months of age
• Uptake 89% (but varies between 81 and 95%)
• ? Why are some parents refusing vaccine?
Figure 7: Seasonal comparison of laboratory reports of rotavirus by week 2010/11-2018/19 (England and Wales)

Source: Public Health England Norovirus and Rotavirus surveillance report
Figure 8: Laboratory reports of rotavirus by week and age group 2009-2019
(England and Wales)

Source:
Public
Health
England
Norovirus
and
Rotavirus
surveillance
report

www.immunisation.ie
Rotarix vaccine

- Live attenuated vaccine
- Oral use only
Rotavirus Oral Vaccine

Frequently Asked Questions
For Health Professionals

Schedule

- Usual 2 and 4 months
- Catch up 2 doses 4 weeks apart

- Give second rotavirus if less than 8 months and 0 days, and there is a minimum of 4 weeks since the first dose of rotavirus vaccine.

- If a baby is 8 months and 0 days of age or older then they should NOT receive any dose of rotavirus oral vaccine.
Containdications

Rotarix vaccine should not be given to:

- infants with a confirmed anaphylactic reaction to a previous dose of the vaccine
- infants with a confirmed anaphylactic reaction to any components of the vaccine
- infants with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrose-isomaltose insufficiency
- infants with a previous history of intussusception
- infants presenting for the first dose of vaccine at 7 months of age or older
- infants aged 8 months of age or over for second dose
- infants who have a malformation of the gastrointestinal tract that could predispose them to intussusception
- infants with Severe Combined Immunodeficiency (SCID) disorder
- Delay in babies born to mothers that used medical biologicals during their pregnancy – See NIAC advice or NIO factsheet
Adverse Events

• Research from some countries suggests that rotavirus vaccine may be associated with a very small increased risk of intussusception within 7 days of vaccination (less than 2 cases per 100,000 doses given)

• But averts 50,000 hospitalisations for gastroenteritis per year in the UK

• The most common adverse events observed following the administration of Rotarix vaccine are diarrhoea and irritability (1 in 10 or more)
Pertussis Vaccine
Pertussis in Infants

Complications and hospitalisation are significantly more frequent in infants particularly in those <6 months of age.

Of those hospitalised:
• 50% have apnoea
• 20% have pneumonia
• 3% have seizures
• 1-4% may die
• 0.3% develop encephalopathy
Pertussis vaccine pregnant women

- Provides protection to mother and protection to baby via transfer of transplacental antibodies.
- NIAC recommended Tdap for pregnant women in 2013.
- The HSE provides Boostrix (Tdap) vaccine free to all GPs for pregnant women.
- In October 2018 due to the on-going incidence of Pertussis infection in small babies a national outbreak was declared.
- From 5th November 2018, GPs are able to claim payment, through the PCRS browser for Tdap (Boostrix) vaccine given to pregnant women between 16-36 weeks gestation using the outbreak code.
Why give the vaccine from 16-36 weeks?

- It was previously recommended that the vaccine should be given between 27 - 36 weeks.
- In September 2016 the National Immunisation Advisory Committee (NIAC), updated its advice.
- NIAC now recommends that pregnant women should be given the vaccine between 16-36 weeks.
- Optimal neonatal pertussis antibody concentrations are elicited when the vaccine was given earlier in pregnancy.
- More opportunities for women to be vaccinated.
- Some protection for premature babies
- If miss vaccine it can be given after 36 weeks or post partum but this is to prevent maternal infection to indirectly protect the baby.
**Tdap vaccine**

- Tdap should not be given if there is a history of anaphylaxis to a previous dose of the vaccine or one of its constituents.
- NIAC recommends that no interval is required between Tdap and any previous tetanus containing vaccine.
- Tdap can be given at the same time as the flu vaccine (or other inactive vaccine in pregnancy).
- Don’t delay either flu or Tdap so they can be given together, give at recommended times.
- Need dose of Tdap in each pregnancy to ensure protection of the baby.