

Immunisation against infectious disease

Update

Chapter 27b Rotavirus

p.337, Premature infants, delete the following paragraph:

Very premature infants (born \leq 28 weeks of gestation) who are in hospital should have respiratory monitoring for 48-72 hrs when given their first routine immunisations, particularly those with a previous history of respiratory immaturity. If the child has apnoea, bradycardia or desaturations after the first routine immunisations, the second immunisation should also be given in hospital, with respiratory monitoring for 48-72 hrs (Pfister *et al.*, 2004; Ohlsson *et al.*, 2004; Schulzke *et al.*, 2005; Pourcyrous *et al.*, 2007; Klein *et al.*, 2008).

p.334, replace second paragraph with:

~~Rotavirus vaccine can be given at the same time as the other vaccines administered as part of the routine childhood immunisation programme, (including BCG vaccine), and so should ideally be given at the scheduled two month and three month vaccination visits (see above). Rotavirus and BCG can be given at **any time before or after each other.**~~

Rotavirus vaccine can be given at the same time as the other vaccines administered as part of the routine childhood immunisation programme, including BCG, and so should ideally be given at the scheduled two month and three month vaccination visits (see above). However, rotavirus vaccine can be given at any time before or after the routine infant immunisations and at any time before or after BCG vaccine. The recommendation for administering live vaccines either at the same time or after an interval of four weeks only applies to injectable live viral vaccines and, therefore, not to BCG or to the oral rotavirus vaccines.

p. 335, **Contraindications**, replace existing text with:

~~Although the vaccine is a live attenuated virus, with the exception of severe combined immune-deficiency (SCID), the benefit from vaccination may exceed any risk in other forms of immunosuppression. Therefore, there are very few infants who cannot receive rotavirus vaccine. Where there is doubt, appropriate advice should be sought from an immunisation coordinator or consultant in health protection rather than withholding vaccination.~~

Rotarix® should not be given to:

- ~~● infants with a confirmed anaphylactic reaction to a previous dose of rotavirus vaccine;~~
- ~~● infants with a confirmed anaphylactic reaction to any components of the vaccine;~~
- ~~● infants with a previous history of intussusception;~~
- ~~● infants over 24 weeks of age;~~
- ~~● infants with SCID;~~
- ~~● infants who have a malformation of the gastrointestinal tract that could predispose them to intussusception;~~
- ~~● infants with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency.~~

Although the vaccine is a live attenuated virus, with the exception of severe combined immune-deficiency (SCID), the benefit from vaccination may exceed any risk in other forms of immunosuppression. Therefore, there are very few infants who cannot receive rotavirus vaccine. Breast feeding and medications for gastro-oesophageal reflux are not contraindications for rotavirus vaccination. The rotavirus vaccine can also be administered before, at the same time as, or after administration of any blood product, including those containing antibody/immunoglobulin. Where there is doubt, appropriate advice should be sought from an immunisation coordinator or consultant in health protection rather than withholding vaccination.

Rotarix® should not be given to:

- infants with a confirmed anaphylactic reaction to a previous dose of rotavirus vaccine,
- infants with a confirmed anaphylactic reaction to any components of the vaccine,
- infants with a previous history of intussusception,
- infants aged 24 weeks and zero days of age or older,
- infants with severe combined immunodeficiency (SCID) disorder,
- infants who have a malformation of the gastrointestinal tract that could predispose them to intussusception
- infants with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency.

p. 336 Premature infants, replace first paragraph with:

~~It is important that premature infants have their immunisations at the appropriate chronological age, according to the schedule. The occurrence of apnoea following routine vaccination is especially increased in infants who were born very prematurely. Some evidence shows that Rotarix® is tolerated in babies born ≥ 27 weeks of gestation according to the same vaccination schedule as babies born full term (Omenaca *et al*, 2012).~~

It is important that premature infants have their immunisations at the appropriate chronological age, according to the schedule. Vaccination of preterm infants using Rotarix® is indicated at a chronologic age (without correction for prematurity) of at least six weeks, if the infant is clinically stable. As the benefit of vaccination is high in premature and very premature infants, vaccination should not be withheld or delayed.

p. 336 Premature infants, replace last sentence with new section:

~~As the benefit of vaccination is high in this group of infants, vaccination should not be withheld or delayed.~~

Hospitalised infants

Administration of rotavirus vaccine to hospitalised infants, including preterm infants in neonatal units, is likely to carry a low risk for transmission of the vaccine virus if standard infection control precautions are maintained. Furthermore, the rotavirus vaccine is highly attenuated and does not revert to a high virulence strain. Therefore, provided that the infant is clinically stable, vaccination should not be delayed, particularly if the delay risks being too late to give the vaccine or giving the first dose of vaccine closer to the upper age limit of 15 weeks. Similarly, if a recently vaccinated child is hospitalised for any reason, no precautions other than routine standard infection control precautions need to be taken to prevent the spread of vaccine virus in the hospital setting.