Rotavirus Immunisation
INFORMATION FOR PARENTS AND GUARDIANS

What is rotavirus and how serious is it?
Rotavirus is the most common cause of severe gastroenteritis in infants and young children in Australia and worldwide.

The severity of the illness ranges from mild, watery diarrhoea of limited duration to severe, dehydrating diarrhoea with vomiting, fever and shock. Rotavirus infections are often more severe than other causes of diarrhoea, are more likely to be associated with dehydration and are more likely to require treatment in hospital.

Prior to the introduction of rotavirus vaccination in Australia, almost every child was infected with rotavirus by the age of 5 years, and there was approximately 10,000 hospitalisations due to rotavirus in children less than 5 years of age each year. In addition to hospitalised children, an estimated 115,000 children under 5 years of age visited a GP, and 22,000 children required an emergency department visit. On average, there was one childhood death from rotavirus each year.

Children can be infected with rotavirus several times during their lives, and without vaccination almost every child will suffer from at least one infection by the age of 3 years. The disease is easily spread from one child to the next. Confirmation of rotavirus infection can only be made by laboratory testing of faecal specimens.

When is rotavirus vaccine given?
Rotavirus vaccination is only recommended for children up to 6 months of age. The first dose of vaccine is recommended to be given with your child’s 2 month old vaccines and it is most important that the vaccine is given on time. It is possible that the risk of intussusception, a rare side effect of vaccination discussed below, may be increased if the vaccine is delayed past the scheduled time. The vaccine is given orally (by the mouth).
How effective is the vaccine?
Vaccination is the best way to protect children against rotavirus disease. The vaccine is very good at preventing severe diarrhoea and vomiting caused by rotavirus. If vaccinated children do get rotavirus, they generally have a milder form of the disease. Children who receive the rotavirus vaccine are less likely to be hospitalised, visit the Emergency Department or see a doctor for gastroenteritis. The vaccine will not prevent diarrhoea and vomiting caused by other infectious agents.

Since the introduction of rotavirus vaccine to the National Immunisation Program in 2007, there has been more than a 70% decline in hospitalisations due to rotavirus gastroenteritis in under 5 years of age. This means that each year approximately 7,000 hospital admissions in young children have been prevented.

Are there side effects from receiving the vaccine?
Vaccine recipients may have slightly increased risk of developing mild diarrhoea or vomiting in the week after the vaccine administration. Serious side effects are very rare. There is also a slightly increased risk of intussusception, a rare form of bowel blockage, associated with the rotavirus vaccine. However, the risks of rotavirus gastroenteritis are many times greater than the very small risk of immunisation.

What is intussusception? And how common is it?
Intussusception is a condition where one portion of the bowel slides into the next, much like the pieces of a telescope. When this occurs, it can create a blockage in the bowel. Intussusception is a rare condition. Most cases occur in babies, the cause is usually unknown.

In Australia, about 200 babies aged less than 12 months of age get the condition each year. It occurs most often in babies between 5 and 10 months of age and is more common in boys.

Recent studies in Australia and overseas suggest that there is a slight increase in the risk of intussusception among babies in the first three weeks after receiving the first dose of rotavirus vaccine and second dose of rotavirus vaccine. The risk is approximately 6 extra cases of intussusception for every 100,000 infants vaccinated.

How do the benefits of rotavirus vaccination compare with the risk of intussusception?
The overall benefits of preventing gastroenteritis from rotavirus are much greater than the small risk of intussusception.

Before rotavirus vaccine became available in Australia, almost every child was infected by rotavirus by the age of 5 years. About 10,000 young children were hospitalised with rotavirus gastroenteritis each year and up to one young child a year died from complications. Since rotavirus vaccination started in 2007 more than 7,000 hospital admissions for rotavirus are
prevented each year. Those who do go to see a doctor are less ill. This compares with more than 200 babies being hospitalised for intussusception each year, of which only about an extra 14 may be related to having received rotavirus vaccine.

Based on the established benefits of rotavirus vaccination and the rare occurrence of IS, both the World Health Organization (WHO), the Australian Technical Advisory Group on Immunisation (ATAGI) have recommended the continued use of rotavirus vaccine for infants under the NIP.

How do I know if my baby has intussusception?
If your baby has intussusception, he or she would have pain like severe colic with bouts of crying. The difference between this and the usual crying episodes is that your baby would probably look pale (rather than flushed) in the face and may draw up his or her legs. At first, your baby may stop crying and seem fine until the next bout, a short time later. Crying may become more persistent over the next few hours, often with vomiting and sometimes with blood in the bowel motion.

Your doctor will be able to suspect intussusception by examining your baby’s abdomen and may refer your baby for an ultrasound. A more complex radiology test can be done in hospital. This hospital test is often successful in unblocking the bowel and the baby can usually go home after a short period of observation. In about 30% of cases, an operation is needed to unblock the bowel. After surgery, babies will need to stay in hospital for a few days and be given intravenous fluids until able to feed normally.

How serious is intussusception?
Most babies recover completely with no further problems. Intussusception can recur in up to 10% of cases, sometimes within a few days and usually within the next 6 months. Complications can occur if treatment is delayed. If there is damage to the bowel wall it may rupture and cause infection inside the abdomen, which can be treated with antibiotics. No deaths have occurred from intussusception in Australia in the past 15 years.

My baby has had intussusception. Should my baby have the rotavirus vaccine?
No. Rotavirus vaccine should not be given to a baby who has had intussusception in the past because there is a risk that intussusception could occur again.
**If my child has intussusception after rotavirus vaccine, can I report it?**

Immunisation providers and doctors treating children with intussusception are asked to report cases occurring after rotavirus vaccination to their State or Territory Health Department or to the Therapeutic Goods Administration (TGA). Parents can report side effects of vaccination to their doctor, or by phoning the Adverse Medicine Events Line on 1300 134 237 or directly via the TGA website at http://www.tga.gov.au/safety/problem.htm

**If my baby has had rotavirus gastroenteritis already should my baby have the vaccine?**

Vaccination would still be recommended in most cases, as one rotavirus infection provides a child with only partial protection. Speak to your doctor or immunisation provider for further advice. There is no increased risk of side effects from the vaccine if your child has already had the disease.

**Where can I get more information?**

Further information about rotavirus and intussusception for parents and guardians is available from your immunisation provider, the Immunise Australia Program Infoline on 1800 671 811 (between 8:30am – 5pm Eastern Australia Time), the Immunise Australia website at www.immunise.health.gov.au or the Therapeutic Goods Administration (TGA) website at www.tga.gov.au/