

Administration of Human Normal Immunoglobulin and Intravenous Immunoglobulin after measles exposure

Information for patients and parents



What are these medicines?

Human Normal Immunoglobulin [HNIG] and Intravenous Immunoglobulin [IVIG] are medicines that contain antibodies. Antibodies are naturally occurring proteins that help fight infection.

The active protein in HNIG and IVIG is called IgG. IgG is very good at fighting bacteria and viruses.

HNIG and IVIG are made from donated human blood (blood donation). The blood of thousands of people is combined before the antibodies are extracted.

Why have I or my child been advised to have this medicine?

We think you / your child has been in contact with someone who has measles. Measles is caused by a virus. It is very infectious.

Measles causes high fever, cough, conjunctivitis, and then a rash. Children are very miserable with measles. Some children develop gastroenteritis with or after measles, and it is not uncommon for children to get a pneumonia either with or after measles.

In most people measles has no long-term consequences but in a small proportion of people measles can cause deafness, inflammation or progressive scarring of the brain, scarring of the lens of the eye or death. About 1 in 1000 children die because of a measles infection.

Very young children, unimmunised pregnant women, and people who are immunosuppressed (usually because a medicine is being taken for another condition) are at risk of more severe measles and of more serious consequences of measles. This is because the immune system in these people is either not yet developed, or its activity is limited, so it cannot respond well to the measles virus.

In these people we recommend giving HNIG (for children) or IVIG (for adults) because it contains some of the proteins that the immune system can't produce for itself. This helps the body fight the measles virus.

We have reviewed your / your child's medical record and believe you / they are at risk of more severe measles. For this reason, we have advised you / they receive HNIG or IVIG.

Why can't I / my child have a measles vaccine instead?

Vaccination against measles is very effective at preventing infection. Vaccination causes the immune system to 'learn' about the measles virus and attack and destroy it before it can cause the disease.

Vaccination is usually carried out when children are about one year old with a second (booster) dose given at about 3 years and 4 months old. The measles vaccine is not as effective in very young children (under 6 months old) as their immune system is not developed sufficiently to allow it to work.

Older babies (6 months to 1 year) can benefit from vaccination but only if given within 72 hours of being in contact with a person with measles.

In people who are immunosuppressed the body cannot respond sufficiently to the vaccine for it to be effective.

How is HNIG is given?

HNIG is given by injection into a muscle. Two or three injections will usually be needed because the volume that must be injected would be too painful to give in one place - the injection can be sore.

How is IVIG given?

In adults IVIG is given via a drip into a vein. Side effects can include a rash, fever, and temporary aches and pains.

When does HNIG / IVIG need to be given?

HNIG can be given up to six days after exposure to measles, but it is most effective when given within 72 hours (three days) of exposure.

Is HNIG / IVIG safe?

HNIG and IVIG are made from blood donations. Blood from several thousand donors is mixed (pooled) to manufacture it. There is a theoretical possibility of catching an infection from one of the donors.

These days blood donors are selected very carefully and are tested for infections such as hepatitis B, hepatitis C, and HIV.

The manufacturing process has rigorous steps to remove viruses and bacteria. There have been no cases of infection being spread by HNIG or IVIG for more than 25 years.

In theory there are risks of passing on diseases that are not yet recognised. It is very difficult to predict whether new and unrecognised infections could be spread by HNIG or IVIG.

Manufacturers and doctors worldwide are constantly on the lookout for this. Because of this vigilance and the strict manufacturing safeguards, the risk of catching an infection from the use of HNIG or IVIG is tiny.

IVIG infusions ('drips') can occasionally cause a temporary inflammation of the membranes covering the brain and (rarely) a temporary blood disorder called haemolytic anaemia. In people with underlying kidney disease, IVIG can cause kidney problems though this is rare in adults and extremely rare in children. None of these problems happen after HNIG injections into muscle.

Is HNIG / IVIG effective?

HNIG and IVIG are very effective in preventing measles if they are administered within 72 hours of exposure to measles.

How do I decide if my child should have HNIG / IVIG?

Most people who develop measles will recover completely but a small number will develop serious consequences of the infection and about 1 in 1000 children die of measles infection.

Very young children and people who are immuno-compromised are at greater risk of severe measles and of complications.

We think you or your child has been in contact with someone who has measles and is therefore at risk of developing it. There is no way at this stage to be sure whether your child has caught it or not. Because HNIG and IVIG work best if given less than 72 hours after exposure, there is not time to 'wait and see' if your child has measles.

The risk of side effects or passing on infection with HNIG or IVIG are tiny.

It can be difficult to weigh up the risk of developing measles after being a contact of someone who already has it with the tiny risk of complications of the HNIG or IVIG. However, in general treatment with these medicines is recommended.

Do I have to take other precautions?

HNIG and IVIG are very effective at preventing measles but is not 100% effective. Because of this we advise that there should be no contact between you / your child and other vulnerable people (especially babies under one year of age, pregnant women, and immunocompromised people) for 21 days. This is to reduce the risk of passing measles on to other people who might be at risk of severe measles.

Where can I get more information?

Your doctor will discuss all the information explained in this leaflet with you before asking for your consent to have the injections or infusion (either for yourself or for your child).

Please make sure you have asked any questions. We understand that this decision might be difficult and your doctor and the team are here to help you make a decision that is right for you.