NICE information for the public

High-throughput non-invasive prenatal testing for fetal RHD genotype

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NICE has assessed high-throughput non-invasive prenatal testing (NIPT) for fetal *RHD* genotype to help the NHS decide whether to use this product.

When you are pregnant, you'll be offered a blood test to find out your rhesus-D status (positive or negative). This is fixed by your genes. If you are rhesus-D (D) positive, it means that a protein (D antigen) is found on the surface of your red blood cells. If you are D negative, you won't have the D antigen. During pregnancy, small amounts of the baby's blood can sometimes enter the mother's blood. If you are D negative and your baby is D positive, you can produce antibodies against the D antigen that's on the baby's blood cells if they enter your circulation. This doesn't usually affect the baby, but can cause problems in the future if you become pregnant with another baby that is D positive.

Currently, because it is difficult to test for a baby's D status in the womb, all pregnant women who are D negative are offered anti-D immunoglobulin. This works by rapidly neutralising any fetal D antigen in your circulation before you can make antibodies. It is made from the blood of people who are D negative. But, mothers whose babies are D negative don't actually need anti-D immunoglobulin.

High-throughput NIPT for fetal *RhD* genotype can be used to test for a baby's D status in the womb using a sample of the mother's blood. NICE has recommended it so that women who are D negative and are carrying a baby that is D negative can avoid unnecessary treatment during pregnancy with anti-D immunoglobulin.

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