

This information and process map is a real world example provided by Harrogate and District NHS Foundation Trust for the NICE diagnostic guidance adoption support resource for High-throughput non-invasive prenatal testing for fetal RHD genotype. It was not produced, commissioned or sanctioned by NICE.

Fetal Rh Status test

Approximately 38% of Rh-ve women receive anti-D unnecessarily because the fetus is also Rh-ve.

A Fetal Rh status test is now available by testing maternal blood for free fetal DNA (FFDNA). This identifies whether the baby is RhD+ve or RhD-ve at 16 week gestation.

In twins, triplets etc, a RhD+ve result will only show that at least one of the babies are RhD+ve, a RhD-ve result will show that all of the babies are RhD-ve

Process

See process map overleaf.

When the woman is found to be RhD-ve she is offered the Fetal status test and given the patient information booklet '*Mothers blood test to check her unborn baby's blood group*'.

At the 16 week appointment consent is obtained and a pink top sample is taken and requested on ICE under '*fetal rhesus status*' and sent to transfusion where it will be forwarded to Bristol. It MUST contain a confirmed EDD or it will not be accepted.

Results will be available in 14 days.

If fetus is RhD-ve then no anti D is required throughout the pregnancy but a cord blood at delivery will be required to confirm the RhD status of the baby.

If the fetus is RhD+ve then anti D will be required as current process.

If the woman decides she wants or does not want to have anti-D despite the result then that is her choice and her wishes will be followed.

Risk

There is a 0.1% chance that the test will show RhD-ve fetus when it is RhD+ve. This equates to approx. 1 in 800, however, of that 1 in 800 only 1% will develop immune anti D, so the risk to the mum and baby is very small. Anti D will be offered at delivery if the baby is found to be RhD+ve.

There is a 2% chance that the test will show RhD+ve fetus when it is RhD-ve. This means the mum will have had anti D unnecessarily which will be much lower than our current rate of 38%.

The fetal RhD status could be attributed to a previous pregnancy by mistake. It is essential that the EDD is documented on every occasion related to the result for that pregnancy tested.

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Process for Undertaking Fetal RhD status test

