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 <u>at least one</u> 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.

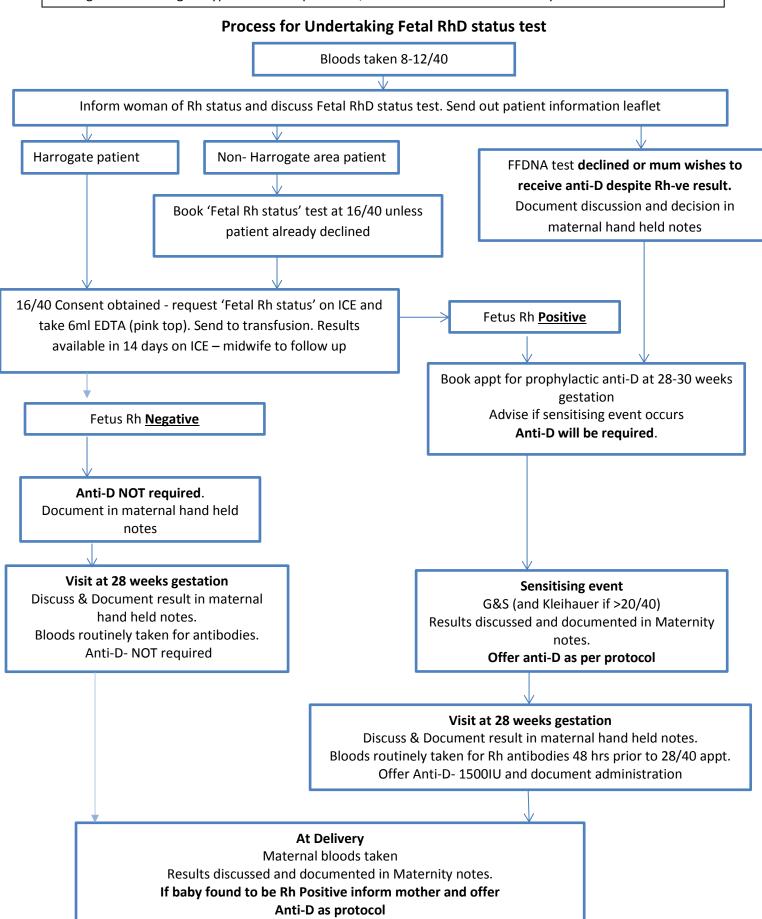
## **Risk**

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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N.B complete Datix if result differs from Fetal Rh status test prediction.