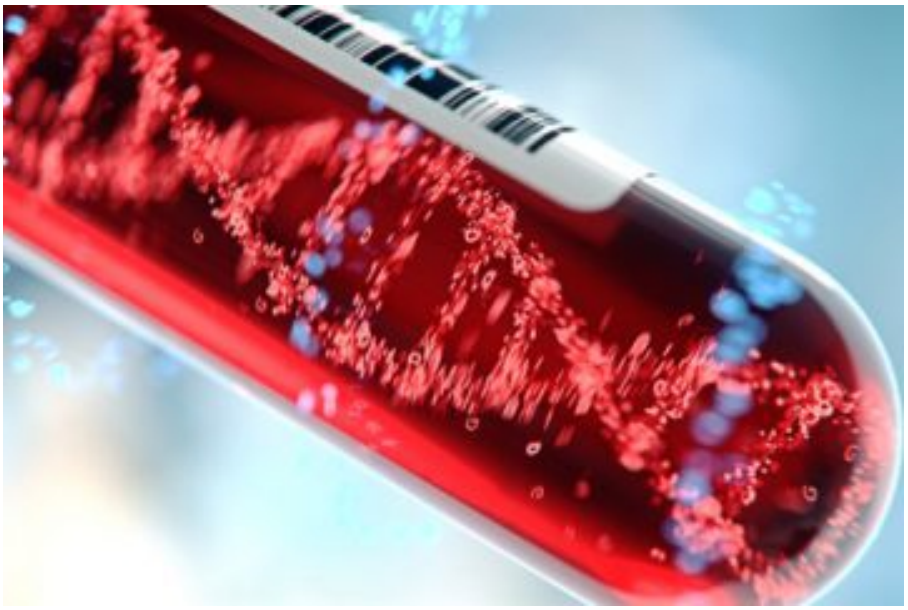


Description

Preventing the jab; an alternative to using of Anti-D in pregnancy?

Jayden Mills – 3rd Year Student Midwife at University of the West of England (UWE)

It has been reported recently that the new blood test for Down's Syndrome may be rolled out throughout the UK (Ewers, 2016). This blood test is called the NIPT (Non-Invasive Prenatal Testing), and involves taking a blood sample from the mother, and from this, detecting fragments of fetal DNA in the circulating blood. These fragments can then be tested for disorders such as Down's Syndrome. However, the test can detect more than Down's Syndrome, it can ascertain whether the fetus is rhesus positive or rhesus negative.



This can be of significance when considering haemolytic disease of the newborn (HDN). This is a condition where there is a sensitising event (such as a bump to the abdomen, a bleed in pregnancy or birth), increasing potential for a cross-over of maternal and fetal blood. If the fetus is rhesus positive and the mother rhesus negative, then the mother's body may develop antibodies to rhesus positive blood cells. If the woman has a subsequent pregnancy, and the baby is rhesus positive, the antibody cells can cross through the placenta, breaking down the red blood cells in the newborn as a result. To prevent this, **all rhesus negative mothers** are offered an injection of Anti-D during pregnancy, which destroys any rhesus positive blood cells that may have crossed over from the baby to the mother. Because all rhesus negative mothers are offered the injection, it means that sometimes it isn't needed – as the baby she is carrying may be rhesus negative like her.

Chitty *et al.* (2014) found that using the NIPT test could accurately detect the rhesus status of the fetus the mother was carrying. As a result, Soothill *et al.* (2015) examined the possibility of using the test so that the injection would only be needed if the baby was found to be rhesus positive, and concluded by recommending the use for this purpose in NHS services (Soothill *et al.*, 2015). Several maternity services throughout the UK use NIPT for ascertaining the baby's blood type, and the National Institute of Health and Care Excellence (2016) recommended that if the test costs the organisation £24 or less, then it should be routinely offered.



Using Anti-D, like any blood product, comes with risks such as anaphylaxis and potential errors in administration. Between 1998 and 2012 there were 1524 reported errors regarding Anti-D administration to Serious Hazard of Transfusion (Davies, Bolton-Maggs and Poles, 2013). Using NIPT could reduce these implications.

However, I was surprised to learn from my student midwife colleagues that the NIPT test is not being used in the maternity units where they are placed. I hope this article helps to increase awareness, and to support others in bringing the issue to the attention of the decision makers within maternity services.

Twitter: @Jaydenjmills

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1. Student Midwife Blog

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