



## **Pamela Youde Nethersole Eastern Hospital**

### **Department of Obstetrics & Gynaecology**

#### **ANTENATAL BLOOD INVESTIGATIONS**

Pregnant women will have the following blood tests:

##### **Haemoglobin and Mean Cell Volume**

These tests help to find out whether the pregnant mother has anaemia and to give clues to the types of anaemia.

Thalassemia is the commonest hereditary blood disorder. 8% of the local population are thalassemia carriers. Most of these carriers do not have symptoms, and only a small proportion may be mildly anaemic. When both parents are thalassemia carriers, one quarter of their babies will belong to the 'Major' type of Thalassemia which is a severe form of anaemia that may cause the death of fetus or the necessity of life-long blood transfusion and drug treatment of the newborn.

Pregnant woman who has low MCV may have iron deficiency anaemia or may be a thalassemia carrier. Her husband should also have the MCV checked. When both have low MCV, further blood tests are required. If both parents are thalassemia carriers, doctor will advise them to check whether the fetus is suffering from 'Thalassemia Major'. If so, they can choose not to continue the pregnancy.

##### **Rhesus (Rh) Factor**

Rh factor is an antigen found in red blood cells. Individuals who possess this factor are classified as 'Rh positive' and those without it 'Rh negative'. Majority of the Chinese population are Rh positive. When a Rh negative mother is having a Rh positive fetus, this may lead to oedema or death of the fetus, or haemolytic anaemia of the newborn. Such mothers should have regular blood tests to find out whether the fetus has been affected. In case of the fetus is not affected, immunoprophylaxis will be given to the mother at 28 and 34 weeks gestation.

## **Rubella Antibody**

A woman who has received Rubella Vaccination or contracted Rubella before conception should have developed immunity, that is, having Rubella antibodies. This can protect her from contracting Rubella during pregnancy which may cause abnormalities of the fetus. If she does not have Rubella antibody, she should receive Rubella Vaccination after delivery to safeguard herself and the fetus against Rubella in the next pregnancy.

## **Hepatitis B Antigen**

10% of the local population are carriers of Hepatitis B Virus. Most of these carriers show no signs or symptoms of the disease. A mother who is a Hepatitis B carrier may transmit the virus to the infant at or around the time of delivery. Therefore, if the blood test is positive for Hepatitis B Antigen, that is, the mother is a carrier, the newborn should receive Hepatitis B Vaccination and Hepatitis B Immunoglobulin after birth so as to be protected against Hepatitis B infection.

## **VDRL (Test for Syphilis)**

When the test result for 'VDRL' is reactive, further blood tests are required to confirm the diagnosis of syphilis. Untreated syphilis in pregnancy may cause abortion or congenital defects of the fetus such as blindness or deafness.

## **Human Immunodeficiency Virus (HIV) Antibody Testing**

HIV can cause AIDS (Acquired Immune Deficiency Syndrome). The routes of transmission include sexual intercourse, blood contact or from an infected mother to her baby during pregnancy, delivery or breastfeeding. The transmission rate from an infected mother to her baby is 15-40%. Early detection and antiviral treatment can reduce the risk of HIV transmission from mother to child by two-thirds.

*Most of the blood results will be notified to you in the next visit. If the result should be followed up earlier, we will contact you by phone and make special arrangement.*