Antenatal (serological) Testing Guidelines

The following routine antenatal serology testing is recommended in accordance with the current guidelines issued by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (College Statement C-Obs 3 (b) - **Routine Antenatal Assessment in the Absence of Pregnancy Complications**. Last reviewed July 2016) and should be offered to all women at their first antenatal visit.

**Hepatitis B surface Antigen (HBsAg)**

Hepatitis B is most commonly transmitted to the neonate at the time of delivery. Women who are HBsAg positive should have further testing (Hep B e antigen/antibody + HBV DNA viral load + liver function tests) and be referred to a hepatitis specialist. Infants born to HBsAg positive mothers should receive immediate post-partum prophylaxis with hepatitis B immunoglobulin (HBIG) and hepatitis B vaccine.

**Rubella IgG**

Rubella antibody titres should be measured for each pregnancy, as antibody levels can wane with time and become non-protective. In early gestation, rubella can lead to foetal death, premature delivery and congenital defects. Vaccination is recommended for negative or low level positive results when NOT pregnant.

**Syphilis serology**

If syphilis screening tests (EIA) are reactive, they are followed by confirmatory testing (TPPA) and an RPR test to assist with assessing infection activity. False positive syphilis EIA is not uncommon; therefore all reactive results must be confirmed and correlated with underlying risk factors. Infection of the foetus in utero can occur at any stage of infection in the mother. Adequate and early treatment of the mother usually ensures that the foetus will not be infected.

**Varicella Zoster Virus (VZV) IgG**

Pregnant women with no known history of vaccination or past infection with Varicella should have VZV IgG testing. Maternal infection with **varicella** can result in severe sequelae in the neonate. The risk of serious disease in non-immune mothers and their babies following exposure to chickenpox **or shingles** can be reduced by early administration of Varicella**-Zoster** immunoglobulin and/or aciclovir.

**Human Immunodeficiency Virus (HIV) Ag/Ab**

Before instituting HIV screening, it is imperative that the woman is provided with appropriate counselling as to the limitations of screening and the implications of both positive and negative findings. All initially reactive HIV Ag/Ab tests are confirmed by additional testing. HIV transmission to the neonate occurs predominantly at the time of delivery or during breast feeding. Transmission can be minimised by early identification and appropriate management of HIV positive mothers.

**Hepatitis C Antibody**

Positive hepatitis C serology does not distinguish between past and active hepatitis C infection, therefore women who test positive should have hepatitis C RNA PCR testing. Although no specific therapy is recommended during pregnancy, identification of positive women enables appropriate follow-up of both the mother and neonates following delivery.

For further information please contact one of our Specialists, or the Microbiology Registrar on 02 512 42105, or the Laboratory Senior Scientist at ACT Pathology on 02 512 44263.