

HIV antibodies

The rate of vertical transmission of HIV varies from 15 to 50%. The question of whether to or not to screen for HIV antibodies in pregnant women is a difficult one as it involves ethical and legal considerations, even though antiretroviral agents such as AZT or nevirapine have been shown to significantly reduce transmission of HIV to the infant.

Herpes simplex virus (HSV) culture

Genital herpes in the mother is an obvious predisposing factor for the acquisition of neonatal HSV infection. The majority of infected infants are born to mothers who have no signs or symptoms of active infection at the time of delivery but in whom asymptomatic shedding of HSV occurs. The indications for an elective caesarian section are controversial but the majority of obstetricians would recommend it in the presence of a florid primary maternal infection at the time of labour. Recurrence of genital herpes is not an indication for caesarian section. Since shedding of HSV from the genital tract is common and neonatal HSV is rare, there is no justification for the routine culture for HSV shedding in pregnant women. Viral cultures, however, should be performed when a woman has a suspicious lesion to confirm the diagnosis of HSV.

Down's syndrome antenatal screen

Using the maternal serum levels of AFP, oestriol and hCG, the Down's syndrome detection rate is about 60%. These markers are also useful in the detection of other rare chromosome disorders, eg trisomy 18. Currently, women more than 35 years are offered amniocentesis for maternal age related risks associated with chromosomal abnormalities. The "triple test" is hence offered to women less than 35 years and is performed between 15 and 20 weeks gestation. An ultrasound is recommended in patients with a positive result to confirm gestational age. If gestational age is confirmed by ultrasound, then genetic counselling and amniocentesis can be offered.

Alpha-fetoprotein (neural tube defects)

More than 90% of NTDs occur in pregnancies in which no previous increased risk has been identified. Several developmental abnormalities are associated with an increased maternal AFP; these include open neural tube defects (spina bidida and anencephaly), and ventral wall defects. Screening is most accurate when performed between 15 and 20 weeks gestation. When positive results occur, the next step is an ultrasound to confirm gestational age and to identify multiple pregnancy, foetal death

or structural birth defects. If ultrasound provides no explanation for the positive result, then the maternal AFP may be repeated, genetic counselling be offered, and amniocentesis considered.

Cervical cytology

Documented normal cervical cytology within the preceding 18 months may be used to delay repeat screening if there is no clinical indication for another PAP smear.

Toxoplasma serology

Screening is not recommended as a routine. Screening for toxoplasma may be warranted in pregnant women who are cat owners.

Varicella-zoster serology

Approximately 95% of adults are immune as the result of natural infection. Varicella infection is extremely rare in pregnancy. Pregnant women with no history of chickenpox (VZV infection) who are exposed to varicella should have varicella-zoster serology performed within 24 to 48 hours. If the patient is known to be seronegative, VZ-immunoglobulin should be administered within four to six days to prevent maternal and congenital infection.

For more information contact the National Pathology Group on Tel: 011 472 0628 www.pathology.co.za