Prenatal Service Guide

Amniotic Fluid Samples

Sample collection

- The first 1 to 2 ml of fluid should be discarded before re-attaching the syringe to the amniocentesis needle in order to minimise the risk of maternal cell contamination.
- Becton-Dickinson 20 ml syringes or syringes with all plastic plungers should be used as some makes of syringe have rubber plungers which can be toxic to amniotic fluid cells.
- Collect 15 to 20 ml of amniotic fluid and transfer, under sterile conditions, into TWO sterile universal containers (NOT GLASS). Please ensure that the containers are free of defects and that the lids are securely tightened.

Chorionic Villus Samples (CVS)

Sample collection

- The chorionic villi (CV) should be aspirated into a small amount of transport medium, which contains heparin, in order to avoid the specimen clotting in the catheter. Flasks containing sterile transport medium are provided by the laboratory on request.
- The specimen should be transferred under sterile conditions to the flask of media and examined under a light source to confirm that sufficient villi are present.
- Ideally, 3 to 4 villi are required, but results can usually be obtained from 1 or 2 small fragments. Small samples should be accompanied by a maternal blood sample (5 ml in EDTA). Larger samples may be necessary for DNA or biochemical analysis. The laboratory will inform you immediately if insufficient villi are present in the received aspirate.
- If the patient is suspected of having a Candida infection, record this information clearly on the referral form. Antimycotics have to be added to the culture medium where Candida is suspected in order to control the infection.

Referral Form

- Obtain a prenatal referral form from our website www.wrgl.org.uk, Referrals forms page, Prenatal diagnosis option.

Packaging

- The sample and referral form should be sent together in a secure leakproof package (hard cardboard box not a padded envelope) according to UN P650

packaging instructions. Please mark outside packaging as *'Urgent - Prenatal Pathological Sample for Immediate Delivery to Genetics'*.

- Ideally, samples should arrive at the laboratory on the same day that they are taken or, at the very least, within 24 hours of aspiration. **Chorionic Villus samples should not be taken on a Friday unless by prior arrangement**.
- When it is necessary to take samples in the week prior to a Bank Holiday please contact the laboratory before the aspirate is taken. CV samples require more individual attention than amniotic fluids and it may be necessary to delay or perform an earlier aspiration.

Biochemical or DNA Testing

- Please inform the laboratory in advance (at least 7 days' notice) of the sample is for molecular genetic testing (e.g. single gene test for a known familial mutation) or for a biochemical assay.
  Samples for biochemical or molecular genetic testing should only be sent after appropriate family work-up has been completed, including consultation with a Clinical Geneticist, when appropriate.
- Please provide a maternal blood sample (5 ml in EDTA).

Qualification and Requirements for Array-CGH Testing

Array-CGH is available for NHS referrals that have;

- abnormalities detected on ultrasound scan, or
- a nuchal translucency >=3.5 mm

Please ensure that the following are provided;

- full clinical information, including details of the abnormalities detected on ultrasound scan, the nuchal measurement and the pregnancy gestation at sampling.
- parental blood samples (5 ml in EDTA) and separate completed referral forms.

Please ensure parental consent for a prenatal array-CGH has been obtained.