General

- **Contacting Laboratory**
  Weekdays 9am-5pm: 0141 201 8722 (enquiries/results)
  Saturdays 9am-12 midday
- Out of hours (24 hours) – on call medical virologist
  On call medical virologist via GRI switchboard 0141 211 4000 (urgent)
- There are only a limited number of tests available out of hours.
- Routine samples are delivered to the laboratory by van via the local microbiology
- For urgent samples during working hours phone the lab and arrange a taxi. Check when the results are likely to be available and provide us with contact details.
- All authorised results are available via SCI store or clinical portal providing the CHI number is included on the request form.
- Swabs should be placed in VPSS or VTM. VPSS has a long shelf life at room temperature and is suitable for all types of swab including eye swabs (chlamydia). Use a dry swab, squeeze the swabbed material into VPSS or VTM by pressing against the side of the vial and discard the swab. Do not leave the swab in the medium. VPSS is an irritant and should not come into contact with the baby
- VPSS can be obtained directly from us or via local microbiology service.

Samples

1. Always provide clinical details including age, gestation, date of onset of symptoms and any fetal abnormalities (if relevant). This helps with test selection.
2. We no longer perform TORCH screens or test babies with a diagnosis of conjugated hyperbilirubinaemia. Phone the lab to discuss.
3. It is helpful to provide the mother’s name and date of birth. Testing of antenatal samples may help confirm or rule out a specific infection.
4. Routine testing of maternal or fetal samples from IUD cases is rarely helpful. If a specific pathogen is suspected please write this on the form and send with a small piece of placental tissue (not swab).
5. Amniotic fluid / fetal blood samples can be tested but not until at least 6 weeks post acute illness, and not before 18-20 weeks gestation.
6. As a general principle always take a sample from the affected system. PCR is used to make all acute diagnoses – it detects more pathogens with greater sensitivity. This may be important for infection control. Direct immunofluorescence is less sensitive and detects fewer pathogens and is no longer available.

Prenatal/Postnatal Infections

1. To confirm the diagnosis of a congenital as opposed to postnatal infection, samples taken in the first 3 weeks of life should be sent.
2. To diagnose HIV infection, see WoS policy or discuss with virology.
3. Testing for HBV or HCV in the under 1’s is not recommended as maternal antibodies may still be present. When transmission is suspected arrange to test the mother.
4. Classical features of in utero infections include the following:
   - **CMV** - Hepatosplenomegaly, microcephaly, chorioretinitis, cerebral calcification, thrombocytopenia. (see WoS policy for management)
   - **Rubella** - Cardiac, ocular and neurological defects, hepatosplenomegaly, purpura. This extremely rare.
   - **Toxoplasma** - Hydrocephalus, retinochoroiditis, hepatitis, pneumonia, myocarditis
   - **Erythrovirus B19** - Fetal hydrops (B19 is not associated with congenital malformation)
5. If HSV disease is suspected send swabs, urine and blood +/- CSF. Surface swabs and a blood are required if the baby has been exposed but is not showing signs of infection. (see GGC policy)

Recent Infection (Postnatal)

1. Diagnosis relies on samples taken from the system(s) involved (see table).
2. Most tests use PCR technology, these take an average 3-5 hours to complete from arrival in the lab. Most of the tests are multiplexed. This means that a sample may be tested for more viruses than you requested
   - **Respiratory Screen by PCR** – influenza A/B, parainfluenza 1-4, coronavirus, rhinovirus, adenovirus, RSV, human metapneumovirus. mycoplasma Ohlmydia is tested on all negative samples in babies (<1month age).
   - **Blood** – CMV, EBV, adenovirus, HSV
   - **CSF** – HSV1/2, VZV, enterovirus
   - **Skin swab** – HSV/VZV.
   - **Stool samples** – norovirus, rotavirus, sapovirus, astrovirus, adenovirus
   - **Eyes** – HSV, VZV, Adenovirus, Chlamydia trachomatis
3. In situations which have infection control implications (egg outbreak or VZ contact), please contact the lab and infection control to coordinate testing.
## Neonatal guide to virology tests – Feb 2014

### Sample to Send to Make Initial Diagnosis

<table>
<thead>
<tr>
<th>PATHOGENS TO CONSIDER</th>
<th>In Utero</th>
<th>Peri / Post Partum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory Viruses</strong></td>
<td>Throat Swab OR NPA OR ETT Secretions</td>
<td>Clinical Features in neonate</td>
</tr>
<tr>
<td>CMV</td>
<td>Skin Vesicle Swab</td>
<td>a) myocarditis, meningitis / encephalitis</td>
</tr>
<tr>
<td>B19</td>
<td>Eye Swab</td>
<td>b) Skin vesicular rash</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>Urine</td>
<td>c) Eye conjunctivitis</td>
</tr>
<tr>
<td>Toxoplasma</td>
<td>Faeces</td>
<td>d) Diarrhoea</td>
</tr>
<tr>
<td>Rubella</td>
<td>CSF</td>
<td>e) Colitis</td>
</tr>
<tr>
<td>Gastro viruses</td>
<td>Blood</td>
<td>f) Upper / Lower Respiratory Tract</td>
</tr>
<tr>
<td>Enteroviruses</td>
<td>Maternal Blood</td>
<td>g) Blood borne viruses</td>
</tr>
<tr>
<td>Inc parechoviruses</td>
<td></td>
<td>h) Contact with herpes simplex</td>
</tr>
<tr>
<td>VZV</td>
<td></td>
<td>i) Sepsis</td>
</tr>
<tr>
<td>HSV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pathogens to Consider

- CMV
- B19
- Chlamydia
- Toxoplasma
- Rubella
- Gastro viruses
- Enteroviruses
- Inc parechoviruses
- VZV
- HSV

**Samples are from the neonate unless otherwise specified**