

# CONGENITAL INFECTION

## RECOGNITION AND ASSESSMENT

- Request specific investigations for infections associated with clinical features below
- Do not request TORCH serology for intrauterine growth restriction without other indication of congenital infection

### Brain

- Intracranial calcifications
- Microcephaly
- Hydrocephaly
- Seizures

### Blood

- Disseminated intravascular coagulation
- Cytopenias
- Bleeding
- Lymphadenopathy

### Skin

- Vesicular or bullous lesions
- Pustular or scarring lesions
- Petechiae or purpura
- Condylomata lata
- Desquamation (hands and feet)

### In-utero

- Intrauterine growth restriction
- Oligo- or polyhydramnios
- Hydrops

### Eyes and ENT

- Microphthalmia
- Congenital cataracts
- Chorioretinitis or keratitis
- Sensorineural hearing loss or failed newborn hearing screen
- Haemorrhagic rhinitis
- Saddle nose

### Skeletal

- Bony abnormalities
- Limb malformations

### System Involvement

- Sepsis
- Myocarditis
- Congenital cardiac anomalies
- Congenital glomerulonephritis

### Liver

- Hepatitis
- Hepato- or splenomegaly
- Jaundice
- Ascites

## INVESTIGATIONS

- If history of foreign travel in pregnancy, discuss with paediatric infectious diseases. Zika, chagas disease and malaria are recognised congenital problems following travel to relevant areas

**Table 1**

Clinical scenario	S	C	O			R	T	C	H		
			Parvo-virus B19	Entero-virus	Other				VZV	HSV	HIV
Abnormal brain development	✓	✓	✓	-	✓	✓	✓	✓	✓	-	-
Sepsis	✓	✓	-	✓	✓	-	✓	✓	✓	-	-
Petechiae/purpura, hepatosplenomegaly	✓	✓	✓	-	-	✓	✓	✓	✓	-	-
Blisters	✓	✓	-	-	-	✓	-	✓	✓	-	-
Intrauterine growth restriction	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
Abnormal antenatal scans*	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	-
Eye disease	✓	✓	-	-	✓	✓	✓	✓	✓	-	-
Hearing loss	✓	✓	-	-	✓	✓	✓	✓	✓	-	-
Limb abnormalities	✓	-	-	-	✓	✓	-	✓	-	-	-
Cardiac abnormalities	✓	-	-	✓	✓	✓	-	-	-	-	-
Liver abnormalities	✓	✓	-	✓	-	✓	✓	-	✓	-	-
No antenatal booking bloods**	✓-	-	-	-	-	-	-	-	-	✓	✓

\* Periventricular calcification, hyperechogenic bowel, ventriculomegaly, microcephaly, fetal growth restriction, hydrops

\*\* URGENT sample required: HIV, syphilis (paired – not cord blood), hepatitis B serology

### Key

<b>S</b>	Syphilis
<b>C</b>	Cytomegalovirus
<b>O</b>	Other
<b>R</b>	Rubella
<b>T</b>	Toxoplasmosis
<b>C</b>	Chicken pox
<b>H</b>	Herpes simplex and other blood borne viruses

### Specific investigations

- Send placental samples for histopathology and microbiology/virology stating 'suspected congenital infection'

### Syphilis

- See **Syphilis – babies born to mothers with positive serology** guideline for investigations and management

### CMV

- See **CMV** guideline for investigations and management

### Other

#### **Parvovirus B19**

- Severe anaemia or hydrops
- Maternal serology
- PCR: blood

**Enterovirus**

- PCR: blood, NPA/nasal secretions, skin lesions if appropriate

**Malaria**

- Weekly blood film for 4 weeks

**Rubella**

- PCR: blood and saliva
- Audiology and ophthalmology review

**Toxoplasmosis**

- Paired maternal/infant serology (not cord blood)
- Add serology to booking bloods
- PCR: neonatal blood, placenta
- Placental microscopy
- Cranial US +/- MRI head
- Audiology and ophthalmology review

**Chickenpox (VZV)**

- See **Fetal varicella syndrome** section of **Varicella** guideline

**HSV, HIV, Hepatitis, HTLV-1**

- See **Herpes simplex virus (HSV)**, **Human immunodeficiency virus (HIV)** and **Hepatitis B and C** guidelines

***If high clinical suspicion or positive results refer to paediatric infectious diseases***