**SYphilis**

**INITIAL EVALUATION IF MATERNAL VDRL or RPR POSITIVE**

**Mother**
- Check maternal HIV and Hepatitis B status
- Obtain relevant history, particularly:
  - whether syphilis early or late
  - when mother treated (should be at least 4 weeks before delivery)
  - levels of maternal antibodies pre- and post-treatment
  - which antibiotics mother was treated with

**Infant**
- Take blood (not cord blood) from infant for VDRL/RPR and anti-treponemal EIA IgM
  Tests required vary between Trusts, discuss with your laboratory first, and mark request with syphilis serology, maternal test positive
- Examine infant thoroughly for evidence of congenital syphilis, looking for:
  - rhinitis/ulceration of nasal mucosa
  - anal lesions causing fissures and bleeding
  - flat plaques on perineum
  - skin eruptions, usually maculopapular but can be circinate
  - swollen, red and mottled palms and soles, desquamating later
  - pseudoparalysis of an extremity
  - non-immune hydrops/anaemia
  - jaundice
  - hepatosplenomegaly and lymphadenopathy
  - pyrexia

**RISK GROUPING AND MANAGEMENT**

**Infants with proven or highly probable disease**
- Abnormal physical examination consistent with congenital syphilis
  or
- Serum titre VDRL/RPR >4-fold (i.e. 16 times) that of maternal titre e.g. maternal 1:2, neonate >1:32 (i.e. 1:64 or more)

**Infants at high-risk but asymptomatic**
- Normal physical examination and
- VDRL/RPR titre the same or <4-fold (i.e. 16 times) that of maternal titre and one or more of following:
  - mother not treated, inadequately treated, or has no documentation of having been treated
  - mother treated with erythromycin or other non-penicillin regimen
  - mother treated ≤4 weeks before delivery; or
  - mother has early syphilis and a nontreponemal titre that has not decreased 4-fold from initial titre

*If information required not available, consider infant as high-risk. Infants whose mothers are HIV positive must be considered high-risk as their immunoglobulin concentrations may not be reliable*

**Investigations for both groups**
- FBC, differential, and platelet count
- If clinically indicated:
  - chest X-ray
  - long bone X-rays
  - liver function tests
  - cranial ultrasound
  - ophthalmologic examination
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- auditory brainstem response
- CSF VDRL, cell count and protein

**Treatment (both groups)**
- Benzylpenicillin 30 mg/kg IV 12-hrly for first 7 days; then 8-hrly for further 3 days

**Infants at low-risk and asymptomatic**
- Normal physical examination and
- VDRL/RPR titre the same or <4-fold maternal titre and one or more of the following:
  - mother treated appropriately for stage of syphilis and at least 4 weeks before delivery
  - mother’s titres reduced 4-fold after treatment for early syphilis or remained low and stable for late syphilis no evidence of subsequent relapse

**Investigations**
- None required

**Treatment**
- Offer parents choice of either single IM injection of procaine penicillin 100 mg/kg IM or, if unavailable, benzathine penicillin 50,000 units (37.5 mg)/kg (given after using 0.5 mL 1% lidocaine) or 10 days IV benzylpenicillin as above
- benzathine penicillin does not treat neurosyphilis or syphilitic osteomyelitis adequately

**Not infected to fully treated mother**
- Normal physical examination and VDRL < 4-fold maternal titres and maternal treatment was adequate before pregnancy with mother’s titres remaining low and stable in pregnancy
- No investigations or treatment required

**FOLLOW-UP**
- If infant not infected to fully treated mother and mother seronegative, no follow-up
- Otherwise, serological testing (VDRL/RPR) every 3 months until test non-reactive or titre has decreased 4-fold
- if titres stable or increase after 6–12 months, repeat investigations (e.g. LP) and treatment