

# Newborn baby at risk of congenital syphilis

**Discuss history with QSSS (1800 032 238) and plan care with an expert clinician**

- Risk factors for congenital syphilis**
- Maternal RPR reactive at baby's birth and treatment history unknown or inadequate<sup>^</sup>
  - Mother had syphilis requiring treatment in this pregnancy (irrespective of adequacy of treatment)
  - Baby with clinical suspicion of syphilis
    - Rash, hepatomegaly, rhinitis, lymphadenopathy and/or other signs (use contact precautions)

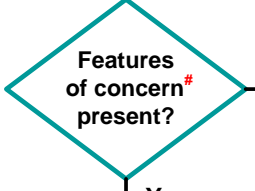
- Inadequate maternal treatment<sup>^</sup>**
- Not treated with benzathine benzylpenicillin
  - Incorrect interval in administration
  - Incorrect dose of benzathine benzylpenicillin
  - Completed within 4 weeks before birth
  - Evidence of maternal re-infection or relapse (more than 4 fold increase in titres) or inadequate serological response to treatment

**Plan and document care plan in conjunction with baby's primary carer and expert clinician**

- Review maternal history**
- Syphilis serology and adequacy of maternal treatment<sup>^</sup>
  - Placental histopathology and syphilis PCR (if collected)
- Clinical assessment and testing**
- Physical examination of baby
  - Parallel syphilis serology testing (RPR) of mother's and baby's serum
  - Syphilis IgM on baby's serum<sup>♦</sup>
  - Dry swab and syphilis PCR of suspicious lesions

- Features of concern<sup>#</sup>**
- Maternal**
- Inadequate maternal treatment<sup>^</sup>
  - Placental histology consistent with syphilis infection
  - Placental syphilis PCR positive
- Neonatal**
- Physical exam has features of congenital syphilis
  - Baby's RPR reactive
    - Four-fold or more higher than maternal titre is diagnostic
    - Less than four-fold the maternal titre *may* indicate congenital syphilis and requires investigation
  - Direct demonstration of *Treponema pallidum* in baby swabs or samples
  - Positive syphilis IgM
    - Negative syphilis IgM does not exclude congenital syphilis<sup>♦</sup>

**If suspicion of syphilis or inadequate maternal treatment<sup>^</sup> commence penicillin treatment of baby (do not wait for test results)**



- At discharge**
- Communication with care-givers**
- Discuss and document
    - Follow-up plan (including for serology testing)
    - Signs and symptoms of congenital syphilis
  - Advise local services of follow-up needs
- If congenital syphilis unlikely but follow-up uncertain and not already treated**
- Expert clinician may consider single precautionary dose of antibiotic
    - Refer to NeoMedQ [Benzathine benzylpenicillin](#)
- After discharge follow-up**
- Clinical assessment**
- At each opportunity review for signs of congenital syphilis
- Serology testing**
- RPR every 2–3 months
    - To exclude incubating syphilis if RPR was negative at birth
    - To monitor for drop if RPR was positive at birth
  - If by 6 months of age, RPR is non-reactive, no further assessment required
  - If persistent RPR titres at 6 months of age
    - Manage in consultation with expert clinician
    - CSF: VDRL, PCR, cell count, protein
    - Retreatment is likely indicated

- Discuss with expert clinician**
- Investigations**
- Blood: FBC, ELFT
  - X-ray: chest, long bone
  - CSF: VDRL, syphilis PCR, cell count, protein
  - Others as advised by expert clinician
- Treatment**
- IV benzylpenicillin for 10 days
  - Refer to NeoMedQ [Benzylpenicillin](#)

<sup>♦</sup>Main utility of syphilis EIA IgM on newborn sera is in confirming a clinical diagnosis in a baby with relevant history, maternal RPR and clinical presentation. Cannot be relied upon to exclude a diagnosis of congenital syphilis

CSF: cerebrospinal fluid, EIA: enzyme immunoassay, ELFT: electrolyte and liver function test, FBC: full blood count, IgM: Immunoglobulin M, IV: intravenous, PCR: polymerase chain reaction, RPR: rapid plasma reagin, VDRL: venereal disease research laboratory, >: greater than, <: less than

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