

CONGENITAL SYPHILIS (CS)

Evaluation and treatment of infants (<30 days old) exposed to syphilis in utero*

Start

INFANTS AND BIRTHING PARENT (e.g., mother) SHOULD HAVE SERUM RPR OR VDRL TITER DRAWN AT DELIVERY

Infant Criteria:

- CS findings on physical exam
- Infant titer ≥ 4 fold higher than mother's titer
- + darkfield or PCR of placenta, cord lesion, or body fluid
- + silver stain of placenta or cord



No to all

Maternal Criteria:

- Not treated
- Inadequately treated[§]
- Treatment undocumented
- Treated with a non-benzathine penicillin G regimen
- Initiated treatment <30 days before delivery



No to all

Additional Maternal Criteria:

- Adequately treated with benzathine penicillin G appropriate for stage, initiated ≥ 30 days before delivery
- AND
- No concern for reinfection or treatment failure



Yes to any

**Scenario 1:
Proven or Highly
Probable CS**

Yes to any

**Scenario 2:
Possible CS^{||}**

Yes to both

**Scenario 3:
Less Likely CS**

Infant Evaluation:

- CSF analysis[†]
VDRL, cell count, and protein
- Complete blood count (CBC), differential and platelet count
- Long-bone radiographs
- Tests as clinically indicated by signs on physical exam.

Infant Evaluation:

- CSF analysis[†]
VDRL, cell count, and protein
- CBC, differential, and platelet count
- Long-bone radiographs

Any abnormalities,
results not available,
OR follow-up^{||} uncertain

No abnormalities
AND
follow-up^{||} certain

Review Maternal Titers & Stage:

- ≥ 4 -fold decrease in titer after treatment for early syphilis
- OR
- Stable titer for low-titer, latent syphilis (RPR < 1:4 or VDRL < 1:2)

No to both
OR
follow-up^{||} uncertain

Yes to either
AND
follow-up^{||} certain

Infant Treatment:

Aqueous crystalline penicillin G[‡]

100,000–150,000 units/kg/day, administered as 50,000 units/kg/dose IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days

Infant Treatment:

Benzathine penicillin G

50,000 units/kg/dose IM in a single dose

No treatment indicated

with close serologic follow-up of infant every 2-3 months for 6 months

* Scenario 4 – in which an infant at delivery has a normal physical exam and titer < 4-fold mother's titer, AND the mother was adequately treated prior to becoming pregnant and sustains RPR titers < 1:4 or VDRL < 1:2 throughout pregnancy – is not included.

[†] CSF test results obtained during the neonatal period can be difficult to interpret; normal values differ by gestational age and are higher in preterm infants.

[‡] Alternative: Procaine penicillin G 50,000 units/kg/dose IM in a single daily dose for 10 days.

[§] Benzathine Penicillin G (BPG or Bicillin-LA), administered according to stage of disease and initiated at least 30 days prior to delivery is the only adequate treatment for syphilis during pregnancy.

^{||} Evaluation is not necessary if a 10-day course of parenteral therapy is administered, although such evaluations might be useful. If the neonate's nontreponemal test is nonreactive and the mother's risk for untreated syphilis is low, a single IM dose of BPG can be considered without evaluation.

[¶] All neonates with reactive nontreponemal tests should receive careful follow-up examinations and serologic testing (i.e., a nontreponemal test) every 2–3 months until the test becomes nonreactive. Neonates with a negative nontreponemal test at birth whose mothers were seroreactive at delivery should be retested at 3 months to rule out serologically negative incubating congenital syphilis at the time of birth.

FOR MORE INFORMATION ABOUT SCENARIO 4 MANAGEMENT, TREATMENT OF SYPHILIS IN PREGNANCY, NEONATAL CSF INTERPRETATION, AND CS INFANT FOLLOW-UP, PLEASE REFER TO THE CDC 2021 STI TREATMENT GUIDELINES.