



## Interim Syphilis Treatment Guidelines during the Benzathine Penicillin G (Bicillin L-A) Shortage 2016

### Background

- The Public Health Agency of Canada (PHAC) has been recently informed of a national shortage of benzathine penicillin G (Bicillin L-A) which is estimated to last until July 2016.
- Pfizer is the only Canadian supplier of Bicillin L-A at present and the shortage is due to a manufacturing issue.
- PHAC recommends conserving available stock of Bicillin L-A and using alternative treatments wherever feasible or possible. Ideally, treatment and follow-up of syphilis should be done in consultation with an STI/Infectious disease specialist or a colleague experienced in syphilis management.
- PHAC is working closely with Health Canada regulators to develop options to mitigate the shortage.
- The following interim treatment recommendations have been developed by PHAC, in collaboration with the Expert Working Group for the Canadian Guidelines on Sexually Transmitted Infections.

These recommendations are intended for use during the Bicillin shortage only and until further notice. They may differ from the preferred and alternative treatment recommendations in the Syphilis chapter of the Canadian Guidelines on Sexually Transmitted Infections.

Close clinical and/or serologic follow-up is especially important when non-penicillin regimens are used for treatment. Refer to tables 6 and 7 in the [Syphilis chapter](#).

**Effective immediately it is recommended that the use of Bicillin L-A be restricted to:**

#### 1. Pregnant patients (all stages)

##### **Primary, secondary, early latent syphilis**

Benzathine penicillin G 2.4 m.u. IM as a single dose

##### **Late latent, latent of unknown duration, tertiary syphilis (not involving the central nervous system)**

Benzathine penicillin G 2.4 m.u. IM weekly x 3 doses

Notes:

- There is no satisfactory alternative to penicillin in pregnancy; strongly consider penicillin desensitization in patients reporting anaphylactic reactions to penicillin.
- Given the complexity of accurately staging early syphilis, some experts recommend that primary, secondary and early latent cases in pregnancy be treated with two doses of benzathine penicillin G 2.4 m.u. 1 week apart; the efficacy of this regimen in preventing fetal syphilis is not known.

**2. Infectious cases (primary, secondary and early latent syphilis), regardless of HIV status, if adherence to treatment and follow-up is uncertain**

Benzathine penicillin G 2.4 m.u. IM as a single dose

Note:

- A single dose of Benzathine penicillin G long-acting is adequate for HIV positive patients with early syphilis.

**3. Sexual contacts (within 90 days) of infectious cases of syphilis if pregnant OR adherence to treatment and follow-up is uncertain**

Benzathine penicillin G 2.4 m.u. IM as a single dose

Note:

- There is no satisfactory alternative to penicillin in pregnancy; strongly consider penicillin desensitization in patients reporting anaphylactic reactions to penicillin.

**The following patients (including HIV infected) should be preferentially treated with oral doxycycline if adherence to treatment AND follow-up is expected.**

**1. Primary, secondary and early latent syphilis cases and their sexual contacts (non-pregnant adults)**

Doxycycline 100 mg PO BID x 14 days

**2. Late latent, latent of unknown duration, tertiary syphilis (not involving the central nervous system) in non-pregnant adults**

Doxycycline 100 mg PO BID x 28 days

Notes:

- In the case of late latent syphilis, if there is uncertainty regarding the staging, (i.e., there is a possibility that it could be an infectious case of syphilis), some experts would recommend the use of Bicillin 2.4 m.u. IM in a single dose followed by the routine doxycycline regimen.
- If there is no uncertainty regarding staging of late latent syphilis, clinicians may opt to defer treatment until the supply of Bicillin is re-established.

**In the event that no Bicillin L-A is available, the following treatment guidelines are recommended (including HIV infected)**

**1. Pregnant patients (all stages)**

Penicillin G 4 m.u. IV q 4 h x 10 days

Note:

- There is no satisfactory alternative to penicillin in pregnancy; strongly consider penicillin desensitization in patients reporting anaphylactic reactions to penicillin.

**2. Primary, secondary, early latent syphilis cases and their sexual contacts (non-pregnant adults)**

Doxycycline 100 mg PO BID x 14 days

Notes:

- If suboptimal adherence is suspected some experts would recommend the addition of azithromycin 2 g PO in a single dose followed by the routine doxycycline regimen.
- Treatment failures have been reported following the use of azithromycin to treat early syphilis, and resistance has been observed in Canada. As such, close clinical follow-up is especially important if early or incubating syphilis is suspected. Monotherapy with azithromycin is not recommended for the treatment of syphilis.

**Alternative treatments**

Penicillin-G 4 m.u. IV q 4 h x 10 days

OR

Ceftriaxone 1 g IV q 24 h x 10 days

**3. Late latent, latent of unknown duration, tertiary syphilis (not involving the central nervous system) in non-pregnant adults**

Doxycycline 100 mg PO BID x 28 days

**Alternative treatments**

Penicillin-G 4 m.u. IV q 4 h x 10 days

OR

Ceftriaxone 1 g IV q 24 h x 10 days

Notes:

- If there is no uncertainty regarding staging of late latent syphilis, clinicians may opt to defer treatment until the supply of Bicillin L-A is re-established.
- In the case of late latent syphilis, if there is uncertainty regarding the staging, (i.e., there is a possibility that it could be an infectious case of syphilis), some experts would recommend the addition of azithromycin 2 g PO in a single dose followed by the routine doxycycline regimen.
- Treatment failures have been reported following the use of azithromycin to treat early syphilis, and resistance has been observed in Canada. As such, close clinical follow-up is especially important if early or incubating syphilis is suspected. Monotherapy with azithromycin is not recommended for the treatment of syphilis.