

Questions and Answers Regarding the Inadvertent Use of Bicillin C-R for the Treatment of Syphilis

Penicillin therapy is the mainstay of treatment for syphilis but different formulations exist on the market that can lead to provider confusion regarding their appropriate usage. Providers should take care to avoid giving their syphilis patients a non-recommended formulation of penicillin.

Bicillin L-A is a trade name for benzathine penicillin G. Bicillin C-R, a similar pharmaceutical, is a mixture of two different types of penicillin and contains only half of the dose of benzathine penicillin G that is recommended by the Centers for Disease Control and Prevention (CDC) for treatment of syphilis.

What should healthcare providers do to ensure that syphilis patients receive the proper treatment?

- Providers should re-familiarize themselves with the recommended treatment guidelines for syphilis, check for the correct formulation of benzathine penicillin by carefully reading the package label when providing treatment for syphilis, and review pharmacy ordering records.

How often does this mistake occur?

- A report was issued in the CDC Morbidity and Mortality Weekly Report in 1998 regarding the inadvertent use of Bicillin C-R for use in treating syphilis in several Maryland clinics.
- This oversight may occur without recognition due to the similarity of name and packaging associated with Bicillin C-R and Bicillin L-A.

Will patients who receive this formulation be harmed?

- There are no scientific data on whether Bicillin C-R is adequate treatment for syphilis. Thus, health officials do not know if there are any harmful long-term effects.
- It is important to recognize that syphilis patients who receive Bicillin C-R are not receiving the incorrect medication. Rather, they are receiving a lower dosage than what is currently recommended by CDC.

If a patient has received Bicillin C-R as treatment for syphilis, what should he or she do?

- The patient should return to his or her doctor for follow-up care.

What will be required of patients who return for follow-up?

- Patients should receive the recommended treatment for syphilis.
- Patients should have repeat blood testing for syphilis.
- Patients should receive HIV testing if they have not been previously tested or if they have previously tested negative.
- Patients with HIV who have low CD4 counts or persistently elevated antibodies to the syphilis organism should be encouraged to receive a lumbar

- puncture to evaluate their cerebrospinal fluid to ensure they have not developed neurosyphilis.
- Patients should be contacted for repeat testing at a later date.

What about sexual contacts of patients who were treated presumptively for syphilis, even though their initial lab result for syphilis was negative?

- Contacts of patients with syphilis can sometimes have a negative syphilis test during the incubating stage of the disease. Clinics will often treat empirically to prevent the later stages of the disease from occurring. These patients should return for repeat syphilis blood testing. If these tests are negative, then no further treatment will be needed.

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