

Practice Update:

Use of Lidocaine and Non-Pharmacological Strategies for Pain Management in Syphilis Treatment



Providers can now order lidocaine with benzathine penicillin G-LA (Bicillin®-LA) in Connect Care!

Syphilis continues to disproportionately affect Two-Spirit, gay, bi, trans, and queer men and non-binary people (2S/GBTQ+) in Canada. Penicillin G benzathine (Bicillin® L-A) remains the first-line treatment for primary, secondary, early latent, and late latent syphilis. To reduce pain and support treatment adherence and retention, co-administration with lidocaine is a new and strongly encouraged practice. However, this option is not widely available. This guide outlines evidence-informed recommendations for reducing injection-related pain, alongside affirming care and culturally safe approaches tailored to 2S/GBTQ+ communities. For more general information on administration practices, consult your local public health authority.

Medication Overview

- **Generic name:** Penicillin G benzathine
- **Brand name:** BICILLIN® L-A
- **Formulation:** Prefilled syringes containing 1.2 million units
- **Needle:** Supplied with 21-gauge, 1½ inch needle
- **Dose:** 2.4 million units total, administered as two separate 1.2 million unit injections
- **Storage:** Store under refrigeration (2 °C - 8 °C). May be removed from refrigeration and stored for 7 days at a temperature not exceeding 30 °C. Protect from freezing.
- **Pain management adjunct:** Lidocaine 1% (without epinephrine) 0.7 mL is physically and chemically compatible¹. Consider routine co-administration in the same syringe to reduce injection discomfort².

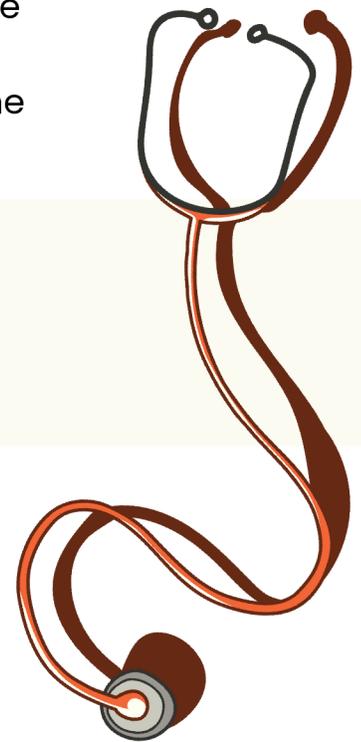


1. Amir, Jacob, et al. "Lidocaine as a diluent for administration of benzathine penicillin G." The Pediatric infectious disease journal 17.10 (1998): 890-893.

2. Department for Health and Wellbeing, Government of South Australia. Pain Management for Long-Acting Benzathine Benzylpenicillin (Bicillin L-A®) Injections: Information for Health Professionals. SA Health, Aug. 2020, <https://www.sahealth.sa.gov.au/wps/wcm/connect/f43a6660-2ddf-4385-970a-9belbe672e8e/Final+-+Pain+management+-+Fact+Sheet-Health+Professionals.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-f43a6660-2ddf-4385-970a-9belbe672e8e-nKpN-ZB>.

Preparation and Pre-Injection Techniques to Reduce Pain

- **Individualize pain reduction strategies:** Provide the list of options for pain management and allow for choice amongst the options.
- **Education:** Explain the procedure and the steps that you are taking to reduce pain. Use inclusive language and avoid gendered assumptions. Advise that the addition of lidocaine can reduce the pain of the injection.
- **Indigenous cultural considerations:** Encourage any traditional approaches for pain management, including traditional Indigenous medicines or healing practices.
- **Address anxiety, trauma, or fear of needles:** Use supportive strategies that help manage rather than heighten distress. Allow sufficient time for the procedure, offer relaxation or breathing techniques, and permit the presence of a support person when appropriate. Avoid false assurances that the injection will be painless and validate previous painful experiences.



- **Warm medication:** Remove from refrigeration at least 15 minutes prior or gently roll the syringe between palms. Avoid injecting cold Penicillin G benzathine.
- **Cold compress:** Apply to injection sites, to slightly numb the area, while preparing medication.
- **Manual pressure:** Apply pressure for 10 seconds to relax the muscle, which reduces both procedural and post-injection pain.
- **Vibration analgesia:** If available, it may reduce pain via competing nerve stimulation.

- **Needle selection:** Use a 21-gauge, 1½ inch needle. Do not use 18-gauge needles.
- **Lidocaine administration:** Draw 0.7 mL of 1% lidocaine (without epinephrine) into the syringe containing room-temperature Penicillin G benzathine. Do not mix the solutions, to allow the lidocaine to enter the muscle first to provide localized anesthesia before the penicillin is delivered.
- **Positioning:**
 - **Lateral:** Side-lying with upper leg bent forward
 - **Prone:** Face-down position may reduce discomfort and allow easier access for bilateral injections
 - **Simultaneous injection:** If preferred by client and two providers are available, both injections may be given at once

Injection Technique

- **Site:** Ventrogluteal muscle (bilateral). Do not inject both doses into the same side.
- **Landmarking:** Locate the ventrogluteal site by identifying the greater trochanter and anterior superior iliac spine. Flexing the hip may assist with accurate identification.
- **Rate:** Inject slowly (~1 mL per 10 seconds). Expect resistance due to viscosity.

After Injection

- **Comfort measures:** Apply warm or cold compresses.
- **Prevent pain from muscle stiffness:** Encourage light walking or stretching, especially in the first 24–48 hours. Advise against prolonged sitting.
- **Analgesics:** Recommend acetaminophen or ibuprofen if soreness persists.

