Lentocilin® (Benzathine Benzylpenicillin) for Syphilis Treatment in Adults

Background

- Due to a critical shortage of penicillin G benzathine (Bicillin® L-A) in Canada, Health Canada has permitted the temporary importation of Lentocilin® S 1200[1].
- **Lentocilin® can be used interchangeably with Bicillin® L-A** and is prioritized for pregnant individuals, sexual partners of pregnant individuals and infectious cases where adherence to treatment and follow up is uncertain[1].
- Lentocilin® has the same active ingredient (benzathine benzylpenicillin), strength (1.2 million units) and route of administration (intramuscular) as Bicillin® L-A, but has a different formulation, dosage form, reconstitution requirement and presentation[1-3].
- Refer to the summary of product characteristics for more details.[1-3]

About Lentocilin®

Packaging and Presentation

Lentocilin® is provided as a prepackaged unit comprising a vial containing benzathine benzylpenicillin (1.2 million units) as a white powder, and a glass ampule containing 1.5% lidocaine hydrochloride for reconstitution[1].

Storage

Lentocilin® should be **stored at room temperature** (below 25ºC) in its original package to protect from light and moisture[1].

Dosage (for adults and adolescents weighing ≥ 40 kg)

- Primary, secondary and early latent syphilis: 2.4 million units in a single dose (injection at two different sites)[4].
- Late latent syphilis or of unknown duration: 2.4 million units (injection at two different sites) weekly for 3 consecutive weeks[4].

Contraindications

- Lentocilin® is contraindicated in patients with previous hypersensitivity reactions to penicillin, cephalosporins and other beta lactam antibiotics.
- Lentocilin® contains soy phospholipids and may cause hypersensitivity reactions in patients with a history of allergy to soybeans[1,2].
- Lidocaine is contraindicated in patients with hypersensitivity to lidocaine or its inactive ingredients; or other local anesthetics of the amide-type[1,2].

Reconstituting Lentocilin®

- Reconstitute immediately prior to administration.
- Draw up **4 mL** of lidocaine into syringe using aseptic techniques.
- Disinfect the rubber stopper of the Lentocilin® vial with alcohol and insert the needle through the center.
- Without touching the powder at the bottom of the vial, carefully inject the lidocaine towards the side of the vial, making it slide through the inner wall of the vial. Do not inject the liquid directly into the powder. Remove the needle from the vial.
- Rotate the vial tightly between hands for 20 seconds to homogenize the suspension. **Do not shake.**
- Transfer immediately to the syringe.
- Repeat above steps with the second prepackaged box to prepare the second syringe.
- Proceed as soon as possible with standard bilateral Ventrogluteal (VG) Intramuscular (IM) administration.
- Refer to video by Septalife® for more information on how to reconstitute Lentocilin®[5]

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Things to Note:

- The final volume of reconstituted Lentocilin® is ~4 mL per syringe[1,2].
- Use a minimum 18-gauge hypodermic needle for administration[1,2]. Do not use a blunt filter needle for the injection. If the needle gets blocked, replace it with a new needle[1,7].
- Only inject into the Ventrogluteal site. Injection into smaller muscles increases the risk of abscess and injection near nerves is considerably more painful and may cause permanent nerve damage[7].

References

1. Government of Canada [Internet]. Importation of Portuguese-authorized Lentocilin S 1200 1 200 000 / 4 mL, due to the current shortage of Canadian-authorized Bicillin L-A 1 200 000 IU / 2 mL; 2026 Feb 18. Available at: Importation of Portuguese-authorized Lentocilin S (Accessed: 07 May 2026).
2. SeptaLife, Lentocilin S 1200 Summary of Product Characteristics (English) https://septalife.com/wp-content/uploads/2026/02/SMPC_Septa_30012026.pdf
3. Health Canada & SeptaLife (March 3, 2026). Risk Communication Information (English). https://septalife.com/wpcontent/uploads/2026/03/HPRC_Penicillin-G-Benzathine_English_Final-HC-review-2026-03-02.pdf
4. Canada, P.H.A. of (2026) Government of Canada, Canada.ca. Available at: https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/syphilis/treatment-follow-up.html (Accessed: 08 May 2026).
5. SeptaLife Lentocilin S 1200 Reconstitution Video: https://vimeo.com/1167439458?share=copy&fl=sv&fe=ci
6. Manitoba Health, Seniors and Long-Term Care *Lentocilin® S 1200 (benzathine benzylpenicillin) for Syphilis Treatment*. Available at: https://www.gov.mb.ca/health/publichealth/cdc/docs/lentocilin-syphilis-treatment.pdf (Accessed: 07 May 2026).
7. Primary Care Alberta, Sexually Transmitted Infections Services (2026) *Lentocilin® (benzathine benzylpenicillin) for syphilis treatment in adults*. Available at: https://www.albertahealthservices.ca/assets/info/hp/srh/if-hp-srh-administering-lentocilin.pdf (Accessed: 07 May 2026).
8. Australian Government Department of Health, *Giving injections*, *Remote Primary Health Care Manuals*. Available at: https://remotephcmanuals.com.au/document/37364.html (Accessed: 07 May 2026)