

Primer for LHJs: How to Reconstitute Lentocilin®

Example of supplies needed to reconstitute one standard adult dose:

- Two boxes of Lentocilin®: *Each box contains: 1 vial of 1,200,000 units benzathine benzylpenicillin powder; 1 glass ampule of lidocaine 1.5%; English Language product information leaflet*
- Two 5cc syringes
- Two gauze pads (or alcohol swabs) to open glass ampule
- Two alcohol swabs to disinfect vial rubber stopper
- Two 1½ inch filter needles (e.g., blunt 18G or 21G) to draw up pre-packaged diluent from ampule
- Set of needles* for injecting diluent into vial and then drawing up suspension
 - *Option 1: Two 18G needles without safety locks to use the same needle to inject diluent, recap, and then draw up suspension if applicable per LHJ nursing protocol. Either 1 inch or 1½ inch.*
 - *Option 2: Four needles with safety lock. The needle for injecting lidocaine alone can be 21G, 20G, or 18G. Only larger bore (at least 18G) can be used for drawing up the suspension to prevent needle clogging. Either 1 inch or 1½ inch.*
- Two 1½ inch, 18G needles for deep IM administration

Preparation: Reconstitute immediately prior to use (aseptically per standard clinical procedure).

1. Prepare supplies on field or tray (with sharps container nearby):
 - Remove plastic cap on vial and disinfect rubber stopper with alcohol swab.
 - Open packages for syringes and needles per standard clinical procedure. Set aside in order of use—filter needle, reconstitution needle(s), then administration needle.
2. Open and draw up pre-packaged diluent, using caution to avoid sharps injury:
 - Prepare filter needle by attaching to 5cc syringe.
 - Wrap alcohol pad or gauze around bottleneck of glass ampule. Grip bottom of ampule with alternate hand and make sure the dot on the vial is facing away from you.
 - Carefully snap bottleneck by applying light, even, quick pressure to bottleneck (snap outward directionally away from your body, so that the ampule's sharp edges are facing away from you at the end of the snap). Dispose of ampule top—with alcohol pad or gauze used to open it—into sharps container.
 - Draw up entire contents of diluent (4cc) into the prepared filter needle and 5 cc syringe.
 - Remove filter needle. Discard filter needle and ampule into sharps container.
3. Reconstitute into suspension:
 - Attach needle* to syringe and insert the needle through center of the vial.
 - Without touching the powder, carefully inject the diluent into the vial (angle needle to inject along the inner wall of the vial). Do not inject the diluent directly into the powder.
 - Remove needle* from the vial and discard into sharps container.
 - Gently rotate the vial tightly between hands for about 20 seconds to homogenize the suspension. Do not shake or agitate. After reconstitution, the suspension should be milky white or almost white.
4. Draw up the suspension: Insert needle* (must be at least 18G) through center of the vial to draw up suspension into syringe. Remove and discard the now-blunted needle into sharps container.
5. Add new 1½ inch 18G needle to syringe for administration: Label syringe per LHJ protocol.
6. As indicated, repeat the process with the second box of Lentocilin® (and a new set of supplies).

Primer for LHJs: Lentocilin® Administration Tips

- **Administration is largely similar to Bicillin® L-A and strictly for deep intramuscular injection only** (ventrogluteal or dorsogluteal). In neonates, infants, and small children it may be preferable to administer in the midlateral aspect of the thigh.
 - **Do not inject intravenously or mix with other intravenous solutions since this has been associated with cardiorespiratory arrest and death. Do not inject into or near an artery or nerve.**
 - **Do not inject into the anterolateral thigh as quadriceps femoris as fibrosis and atrophy have been reported. Do not inject into the arm.**
 - Lentocilin® is always divided dosing requiring two injections to meet a standard adult dose of 2.4 MU BPG (i.e., it only comes in 1.2 MU dose).
 - US FDA Letter to Providers: [Temporary Importation of Lentocilin®, \(Benzathine Benzylpenicillin Tetrahydrate\) Powder and diluent for suspension for injection, 1,200,000 units with Foreign, non-U.S. Labeling to Address Supply Shortage](#)
- **Key reminders:**
 - Use an 18G, 1½-inch needle for administration (and drawing up reconstituted suspension).
 - Administer as soon as possible after reconstitution to avoid suspension settling or clumping.
 - Prior to administration, visually inspect syringe to ensure it is well homogenized with no particulates or clumps.
 - Similar to Bicillin® L-A, aspirate plunger for 5-10 seconds prior to injection to ensure no blood return and if no flashback, administer at a slow, steady rate (over 20 seconds). While Lentocilin® may not *feel* as viscous as Bicillin® L-A, this is still needed to prevent clogging the needle.
 - If the needle becomes clogged, replace it with a new 1½-inch 18G needle.
 - Discontinue injection if immediate acute pain, especially in children or infants.
- **Considerations for patient education:**
 - The medicine is the same as Bicillin® L-A and it is used to treat the same infections. It is a different brand that is made in Europe. The U.S. FDA is allowing it temporarily until they are able to make enough Bicillin® L-A again.
 - It is a bigger shot because it also has numbing medicine in it (lidocaine). Clinics have shared that patients report that these injections were less painful. Studies have also shown that using lidocaine reduces pain when getting these types of shots.
 - This medicine has been used in clinics throughout the US this past year and it has been well tolerated. It has also been safely used for years in other countries to treat syphilis in infants, children, and adults—including during pregnancy. There is no other safe, effective treatment option for syphilis in pregnancy.
 - Similar to Bicillin® L-A: Monitor for 20 minutes after injection. Review possible Jarisch-Herxheimer reaction, delayed allergic reaction, and confirm treatment plan.