

Acute Rheumatic Fever and Rheumatic Heart Disease

Pain management for long-acting benzathine benzylpenicillin (Bicillin L-A®) injections

Information for health professionals

Tips for reducing pain during and post Bicillin L-A® injections:

- ✓ Warm the Bicillin L-A® syringe to room temperature. Remove from the fridge 15 minutes prior. Hold or roll between hands. Never give cold.
- ✓ Allow skin to dry following alcohol swabbing.
- ✓ Encourage and reassure the patient. Talk about the benefits to the patient's health and the importance of the next injection within 21-28 days.
- ✓ Distract with talking, offering puzzles, an iPad/ phone games, picture books.
- ✓ Document and alternate injection sites for each injection.

Also try:






- ✓ Ice/gel pack in a cloth; apply to the injection site five minutes before the injection.
- ✓ EMLA cream (topical skin anaesthetic) – apply 15 minutes prior to the injection (application at least 60 minutes prior to the injection provides best pain relief).
- ✓ 'Buzzy4Shots' vibrating ice pack – place on the injection site for two minutes prior to the injection, and then held on the skin just above the injection site during administration.
- ✓ Ethylchloride (Cold Spray) – apply immediately before the injection, directly to injection site until the skin starts to turn white (4-10 seconds), stopping before the skin frosts.
- ✓ Bionix Shot Blocker – press the C-shaped device down firmly onto the injection site (bumps facing down) and hold in place. Administer through the U-shape opening.
- ✓ Lidocaine 1% or 2% – transfer the contents of the pre-filled BPG syringe to a new syringe, draw lidocaine into the new syringe tip, then administer using the new syringe so that the lidocaine is injected first. Refer to the Australian guidelines for the detailed preparation guide.

Administering Bicillin L-A® injections:

- ✓ **Deliver the injection slowly over 2-3 minutes** using the pre-filled syringe and the 21 gauge needle provided; to reduce needle blockages, muscle shearing and pain.
- ✓ Administer into **deep muscle** at a 90 degree angle into either:
 - > ventro-gluteal (hip) muscle.
 - > dorso-gluteal (upper, outer quadrant of the buttock) or
 - > vastus-lateralus (anterolateral thigh)
- ✓ Never inject into the deltoid muscle (due to large volume and viscosity). Refer to Australian Guidelines regarding weight and dose adjustments: rhdaustralia.org.au/arf-rhd-guideline

Please notify the RHD Register with patient details after each injection by emailing rhd@sa.gov.au

Post-injection:

-  Apply heat packs/cold packs as per patient preference
-  Encourage movement of the limb
-  Offer oral pain relief
-  Encourage and praise the patient
-  Provide the patient and family with your health service phone number

Acute Rheumatic Fever and Rheumatic Heart Disease are preventable

Strep A Infections

Children at high risk must be treated with penicillin.



Sore throat (pharyngitis)



Skin sores (pyoderma/impetigo)

Acute Rheumatic Fever

Must be treated with penicillin.

Presentation can be subtle and can include:



- fever
- joint pain
- heart murmur
- Sydenham's chorea

Rheumatic Heart Disease

Damage to heart valves following ARF.

Often without symptoms until severe.

Requires life-long and complex care.



Check for allergies prior to administration of penicillin and pain relief medication.

IMPORTANT INFORMATION

ARF and RHD patients require long-acting benzathine benzylpenicillin (Bicillin L-A®) intramuscular injections:

1,200,000 units/2.3mL
(600,000 units if patient less than 20kg)

✓ every 21-28 days

✓ for a minimum of five years

Missed or late doses of Bicillin L-A® risk a recurrence of ARF and progression of heart valve disease (RHD).



Download the free Guidelines and Diagnosis Calculator App

For more information or to arrange education sessions for your service, contact the SA RHD Register and Program:
rhd@sa.gov.au

Telephone: 08 7425 7156

Mobile: 0401 124 013

sahealth.sa.gov.au/rhd

For additional resources and to access the Australian Guidelines: rhdaustralia.org.au/arf-rhd-guideline.

To access CPD accredited clinician e-learning modules:
rhdaustralia.org.au

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