Health New Zealand
Te Whatu Ora

Benzetacil instead of Bicillin – Update for primary care

Key points

- Bicillin L-A shortages require a change to Benzetacil for rheumatic fever prophylaxis and syphilis treatment for those 14 years and over
- Benzetacil is available now on PSO, please order it now, along with 1% lidocaine diluent
- Save Bicillin for patients with the highest risk of adverse outcomes, and for young children who may not tolerate a larger volume intramuscular injection
- Prescribe oral alternative for **first-episode** Strep A sore throats and skin infections
- There is guidance for patients receiving SCIP (see 1. below)
- If you have excess stock of Bicillin, please consider returning for redistribution or saving for priority groups only.
- There are FAQs on talking to patients/whānau about the change (see 2. below) and administering Benzetacil (see 3. below).

Restrict remaining Bicillin L-A supplies for

- Children aged 13 years and under
- Young people with special needs
- Children and adults who have already experienced a recurrence of rheumatic fever, or who have severe rheumatic heart disease
- Selected adults and young people, for example those with significant needle distress, or post valve replacement surgery, as outlined in the Rheumatic Fever Clinical Control Standard (RFCCS).

Benzetacil contains the same active medicine as Bicillin L-A and provides the same protection against recurrent rheumatic fever when administered intramuscularly. The dose, timing and frequency of IM prophylaxis remain unchanged.

1. Patients who are currently receiving subcutaneous injection of penicillin (SCIP) and who are not within a priority group for Bicillin L-A will need to transition to intramuscular (IM) Benzetacil for ongoing secondary prophylaxis.

Benzetacil cannot be substituted into SCIP pathways. For patients in priority groups above receiving subcutaneous injections of penicillin (SCIP), individualised discussions should occur between the clinician, patient and whānau regarding the most appropriate ongoing treatment approach.

FAQS on SCIP

Why can't Benzetacil be used for SCIP?

SCIP has been studied using Bicillin L-A. Although Benzetacil contains the same active ingredient, it is a different formulation that requires reconstitution prior to administration. At present there is insufficient evidence that subcutaneous administration of Benzetacil would result in the same absorption characteristics, blood concentrations or duration of protection as SCIP using Bicillin L-A. Because the effectiveness of Benzetacil administered subcutaneously is unknown, Benzetacil should not be used for SCIP.

What does this mean for patients?

For patients who are not prioritised for ongoing Bicillin L-A access:

- SCIP will need to cease.
- Secondary prophylaxis should continue using intramuscular Benzetacil. Note that changing from SCIP to IM Benzetacil means that the frequency will usually change from every 10-12 weeks to every 4 weeks (or as prescribed).
- Ongoing prophylaxis should not be interrupted during the transition.

Patient/whānau support – answering questions:

"Why can't I stay on SCIP?"

> *"I understand that you've preferred SCIP, and it's worked well for you.*
>
> *The challenge is that SCIP was developed using Bicillin. The alternative medicine we're using during the shortage, Benzetacil, is a different formulation."*
>
> *"Although it contains the same antibiotic, we don't know whether Benzetacil behaves the same way when given under the skin. We don't have evidence that it would provide the same levels of protection against rheumatic fever."*
>
> *"Because we can't be confident it would be safe or work as well, we're not using Benzetacil for SCIP."*

"Why do I have to move back to intramuscular injections?"

> *"The safest option is to use Benzetacil in the way we know works, which is as an intramuscular injection."*
>
> *"We know that intramuscular Benzetacil provides effective protection against recurrent rheumatic fever, so that's why we're recommending this change."*

Acknowledging disappointment

> *"I appreciate that this may feel like a step backwards, particularly if SCIP has made treatment easier for you."*
>
> *"This change isn't because SCIP hasn't worked for you. It's because Bicillin is in very limited supply, and we can't be confident that Benzetacil would provide the same protection if it were given subcutaneously/under the skin"*

2. For other patients on Bicillin L-A IM injections, moving to Benzetacil

There is a separate patient/whānau information sheet to explain the change to Benzetacil at the end of this document.

Reassurance about Benzetacil as an alternative formulation

> *“Because of a supply shortage of the Bicillin that you usually have, we’re using a different version of the antibiotic called Benzetacil.*
>
> *“This new version contains the same medicine and works in the same way to protect your heart. You’ll receive this in the same way with the same frequency as before.*
>
> *“It is a larger volume of injection but a thin liquid. It shouldn’t be any more painful than Bicillin. Let me know if it is hurting too much.*
>
> *“Are you okay to continue?”*

3. Administration tips and tricks for injecting Benzetacil

Do not use Benzetacil if the patient has allergies to peanut or soya (this medicine contains lecithin from soya)

Reconstitution

There is a step by step video here.

1. Use a filter needle to draw up 4mL of lidocaine from 1% lidocaine glass ampoules. Do not use less than 4mL of lidocaine as it can cause needle blockages.
2. Mix the dry powder with 4 mL 1% lidocaine (unless there is an allergy, in which case use water for injection, refer to the administration guidance table).
3. Shake until it looks completely mixed– this might take several minutes

Administering

1. Administer using a new 21G gauge needle
2. Use your usual technique to reduce pain (see FAQ 4)
3. Continue to administer in usual injection site

4. Inject slowly and steadily. This may take up to 5 minutes or more.

Navigating problems

1. If the patient/client is struggling with the larger volume injection, consider offering to split the injection and use two sites
2. Benzetacil is less likely to block the needle. If this happens, ask the patient if you can try injecting the remaining treatment in a different site with an 18-gauge needle.

FAQs on Benzetacil administration

1. **What do I do for patients/whānau who haven't been informed about Benzetacil prior to their appointment?**

Please explain to all patients 14 years and over at their appointment that there has been a change to their treatment, now Benzetacil

An information sheet explaining the change for patients, parents and carers is at the end of this pack. Translations of this information in Samoan, Tongan and Te Reo will be distributed in the next week.

Older patients may be able to give verbal consent to Benzetacil at the appointment if you explain the change, reassuring them it is the same penicillin medication although a different volume.

Ideally, Benzetacil should be given. However, if you have to, you can offer Bicillin to those aged 14 or 15 years at their next appointment if you need to explain the change face to face and ensure they understand. Please switch them for the appointment following that.

2. **How can I reduce pain associated with injections?**

The same principles apply for reducing the pain associated with IM injections as for Bicillin L-A. While Benzetacil has a larger volume to be administered, it is a thinner liquid, which may reduce the discomfort.

Pain can also be reduced by using 1% lidocaine to the antibiotic for reconstitution (it is important to check the Medsafe data sheet regarding allergies to lidocaine).

Other helpful measures are those similar to Bicillin injections – see page 4 of this Starship factsheet https://media.starship.org.nz/how-to-give-bicillin-injection-guide/How_to_give_bicillin_injection_guide.pdf

3. **What do I need to know about reconstituting and administering Benzetacil?**

Benzetacil is thinner and if reconstituted properly it is less likely to block the needle.

Follow your normal local process regarding what needles/equipment you have available, and your local drawing up procedures. Other tips include:

- Shake well to ensure fully mixed
- Once reconstituted, use a 21G needle for administration
- Administer the injection immediately after reconstitution
- Administer slowly and steadily.

4. **What should I do if there is a blockage?**

If the needle becomes blocked during administration, with consent, use an 18G needle to administer remaining contents at a separate site.

Explain the importance of receiving the full dose to prevent recurrence of RF or RHD, answer any questions and provide reassurance. If they still decline, contact the clinical lead or issuer of standing order (non-urgent) for advice on prophylaxis coverage until the next scheduled dose.

If a second blockage occurs: do not administer again. Document the estimated total amount delivered across both syringes. Explain the issue to the patient and advise that you will escalate for clinical advice. Contact the clinician for guidance on prophylaxis coverage.

If a blockage of Benzetacil occurs, please also notify Medsafe (recalls@health.govt.nz) so they have visibility of any issues occurring.

5. **What should I do if a patient doesn't tolerate the larger volumes of Benzetacil?**

You can split the injection across two sites, if the volume seems too large for the person's size or if they are concerned.

6. **What should I do if the patient declines the alternative formulation but isn't in a priority group?**

Please contact the lead clinician for advice to ensure there is a plan for prophylaxis coverage.

7. **How should I input the change into RFCCS?**

To update the Benzathine details in RFCCS from the Patient Landing Page. Open the Care Details tab, edit the Secondary Prophylaxis Medication section of the Care Plan, select Benzathine Penicillin as the medication, choose Benzetacil as the Benzathine Brand, and save your changes.

8. **The direction is to prescribe oral alternatives for the treatment of Strep A sore throats and skin infections, what if my patient has recurrent RF and RHD?**

Please only prescribe oral alternative for **first-episode** Strep A sore throats and skin infections. See Page 110 of Acute Rheumatic Fever Guidelines Aotearoa New Zealand Guidelines for the Prevention, Diagnosis, and Management of Acute Rheumatic Fever and Rheumatic Heart Disease – 2024 Update

For any questions around Bicillin for rheumatic fever please contact: rheumaticfeverprogramme@tewhatuora.govt.nz

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Your injection is changing

Bicillin → Benzetacil for Rheumatic Fever Prevention

Why is my injection changing?

- There is a worldwide shortage of Bicillin
- To make sure you keep getting treatment, we are using Benzetacil instead.

Is Benzetacil as good as Bicillin?

- Yes – it works the same way
- Contains the same active antibiotic (penicillin)
- Protects against rheumatic fever in the same way.

What is different?

- The injection is a larger volume
- It is mixed just before it is given.

Will it hurt more?

- No – it should not be more painful
- Nurses use the same methods to reduce discomfort.

How often will I get it?

- No change to your schedule
- You will still get your injection every 3–4 weeks (or as advised).

What do I need to do?

- Keep your regular appointments
- Tell your nurse if you have had problems with injections before
- Ask questions if you are unsure.

Talk to your nurse or doctor if you:

- Feel worried about the change
- Feel unwell after your injection.

Reassurance

- This change is temporary. Both treatments protect you from rheumatic fever
- If you have any concerns or queries after your injection, please call the service.