Benzathine benzylpenicillin (BPG) 'Tips and Tricks'

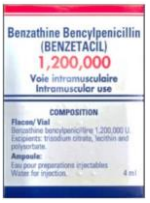
Long-acting BPG is a critical medicine for the treatment of Group A Streptococcal (Strep A), syphilis infections, and the management and prevention of acute post-streptococcal glomerulonephritis (APSGN), acute rheumatic fever (ARF) and rheumatic heart disease (RHD).

Due to ongoing international shortages of the pre-filled Bicillin L-A product usually used in Australia, several alternative products have been sourced for use.

All products contain the same active medication. They should be used for the same indications, at the same dose indicated, and same frequency (e.g. every 21 to 28 days for ARF and RHD management).

The Therapeutic Goods Administration website should be monitored for updates.

This document has been adapted from the Northern Territory Government BPG resource, to provide health staff in Queensland guidance on preparation and administration for BPG products available in Australia.

BRAND NAME	**BICILLIN L-A**	**BRANCASTER**	**LENTOCILLIN**	**BENZETACIL**
Country of registration	Australia	United Kingdom	Portugal	Spain
Product image				
Dose form and strength	600,000 units/1.17mL AND 1,200,000 units/2.3mL (prefilled syringes) Supplied in box of 10	1 vial containing 1,200,000 units (powder for reconstitution) Supplied as single units	1 vial containing 1,200,000 units (powder for reconstitution) Supplied as single units	1 vial containing 1,200,000 units (powder for reconstitution) Supplied as single units
Diluent supplied	Not applicable	Water for injection	Lidocaine 1.5%	NONE
PBS listed	YES TGA Registered ***Worldwide shortage***	NO Access via Section 19A until 31/01/2027	YES Access via Section 19A until 31/01/2027	NO Access via Section 19A until 31/01/2027
Approval holder for ordering	Pfizer Australia 1800 675 229 **Emergency supply only**	Pro Pharmaceuticals Grp 1300 077 674	Neon Healthcare (02) 7255 8455 Emergency stock may be available through **Prescribers Bag**	Phero Pharma (02) 9420 9199
	Queensland Health staff are recommended to contact Central Pharmacy and order stock through usual processes.			
Store in fridge	YES	NO	NO	NO

	BICILLIN L-A	BRANCASTER	LENTOCILLIN	BENZETACIL
Reconstitution[1]	Not required	3.5mL Water for Injection **OR** 3.5mL Lidocaine[1] 1%	4mL Water For Injection **OR** 4mL Lidocaine[1] 1.5%	4mL Water For Injection **OR** 4mL Lidocaine[1] 1%
Approximate volume when reconstituted[2]	Not applicable	4.5mL	4.8mL	4.8mL
Considerations	Conserve for use in high-risk[4] groups where alternative products not suitable.	Not suitable with soy or peanut allergy.	Not suitable with soy or peanut allergy.	Not suitable with soy or peanut allergy.
	Consider short term secondary prophylaxis treatment with oral phenoxymethylpenicillin (Penicillin V) whilst attempting to source BPG medication, and in patients consistently refusing or unable to receive intramuscular options. Oral penicillin produces less consistent serum penicillin levels, and patients receiving oral treatment should be vigilant for skin infections and sore throats and promptly treated.			
Tips for reconstitution[3]	Not applicable	Shake gently for at least 20 seconds, until an even suspension forms.	Slowly inject the diluent down wall of the vial. **Do not inject the diluent directly into the powder**. Carefully rotate vial between your hands for 30 seconds to make an even suspension. **Do not shake.**	Shake gently until an even suspension forms. It may take several minutes.
		To avoid the needle becoming blocked: Once reconstituted, apply new 21G needle Administer the injection immediately after reconstitution Administer slowly and steadily **If the needle becomes blocked during administration,** with client consent, use an 18G needle to administer remaining contents at a separate site. **Do not attempt a 3rd injection from the same syringe if previous 2 attempts failed**		
Tips for administration[3]	• 21G needle is recommended for injection into large muscle sites (ventrogluteal, dorsogluteal, or vastus lateralis). Inject slowly over 2-3 minutes. • Involve patient and follow patient choice for muscle site and distraction techniques. • Consider mix of non-pharmacological and pharmacological strategies. • When using lidocaine, draw up BPG product, and use a new needle to draw up required Lidocaine. Take care not to mix products and keep Lidocaine in the syringe tip.			
Resources	• Patient Choice - BPG Game Plan • Fact Sheet - BPG pain management guide • Education Video - BPG for ARF and RHD • Fact Sheet - Benzathine benzylpenicillin is not 'BenPen'			

[1]Clinician should determine use of lidocaine vs water for injection, including patient preference and tolerance. Lidocaine requires a prescription, even when provided as the diluent.

[2]Overall, 5 mL has been cited for adults as the maximum volume for a single IM injection, with lower volumes proposed for adult patients with less-developed or small muscle mass. *Hopkins, Una, and Claudia Y. Arias. Oncology Nurse Advisor, Jan.-Feb. 2013*

[3]Follow local protocols, Australian Injectable Drugs Handbook and recommendations from Australian guideline for the prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease (Ed 3.3)

[4]High-risk groups include patients requiring secondary prophylaxis for ARF and RHD, patients with Strep A infections who are at high risk of ARF, RHD or APSGN where oral therapy is not acceptable, or patients with suspected or proven Syphilis and their sexual contacts. Therapeutic Goods Administration