

Paediatric Liquid Medicines - Standardised Concentrations

The Neonatal and Paediatric Pharmacists Group (NPPG) and the Royal College of Paediatrics and Child Health (RCPCH) strongly recommend that when children require unlicensed liquid medications, they should receive the [RCPCH and NPPG recommended concentrations](#) (where one exists) to reduce the risk of dosage errors and prevent hospitalisation.

The table below lists available formulations which have been approved as suitable for paediatric use.

(NOTE: Manufacturers may change formulations. Pharmacists must ensure excipient concentrations continue to be suitable for use.)

Drug	Strength	Total Volume	Supplier	Cost (exc. VAT)	Sugar Content	Alcohol Content	Propylene Glycol Content	Excipients – Others known.	Shelf-Life *=-refrigerate
Azathioprine	50mg/5ml	150ml	Rosemont	£34.82	Nil	Nil	100mg/ 5ml		6 months
		100ml	Nova	£71.00	Not sugar free (contains raspberry juice)	Nil	Nil	Raspberry juice Aspartame Xanthan gum Methyl hydroxybenzoate Propyl hydroxybenzoate Water	2 months from manufacture
Chloral Hydrate	500mg/5ml	200ml	Rosemont	£14.35	Sucrose- 3g in 5ml Glycerol - 0.25ml in 5ml	Nil	0.35ml/ 5ml (density 1.036g/1ml)	Sodium - 3.7mg/5ml	12 months

Ethambutol	400mg/5ml	50ml 100ml 150ml 200ml 250ml 300ml 500ml	Nova	£57.13 £59.91 £76.25 £92.58 £94.29 £111.72 £136.46	47% syrup i.e. 47ml in 100ml of final product	1.95ml per 100mls of mixture	Nil	Preserved syrup BP Orange tincture (contains alcohol) Methyl hydroxybenzoate Propyl hydroxybenzoate Water	1 month from manufacture
Hydrocortisone	5mg/5ml	150ml	Rosemont	£28.47	Nil	Nil	Nil	Sodium - 6.28mg/5ml	6 months
Isoniazid	50mg/5ml	500ml	Rosemont	£31.16	Nil	Nil	0.075ml/5 ml (density 1.036g/1ml)	Sodium - 16mg/5ml	12 months
Omeprazole #	20mg/5ml (licensed)	75ml	Rosemont	£178.35	Nil	Nil	Nil	Sodium -17.2mg/ml	24 months/ 28 days*
	20mg/5ml (unlicensed)	100ml	OPS (via Aclardian Ltd.)	£57.00	Nil	Nil	Nil	Sodium carbonate/ bicarbonate buffer Deionised sterile water	12 months/ 28 days*
	20mg/5ml (unlicensed)	100ml	Aclardian Ltd.	£60.00	Nil	Nil	Nil	Sodium carbonate/ bicarbonate buffer Deionised sterile water	12 months/ 28 days*
# Now that a licensed formulation is available, this should be preferentially used									
Phenobarbitone	10mg/1ml	50ml 100ml 150ml 200ml 250ml 300ml 500ml	Nova	£37.00 £38.14 £48.43 £58.45 £59.63 £70.20 £85.12	Nil	Nil	Nil	Xanthan gum Glycerine Water Methyl hydroxybenzoate Propyl hydroxybenzoate	12 weeks from manufacture
		150ml	Rosemont	£125.00	Nil	Nil	150mg/ 5ml	Sodium -4.9mg/5ml;	8 months

Pyrazinamide	500mg/5ml	300ml	OPS (via Huddersfield Pharmacy Specials)	£125.23	1mg/1ml sucralose	Nil	52mg/ 1ml	Methyl Hydroxybenzoate Propyl Hydroxybenzoate Colloidal Silicon Dioxide (Aerosil 200) Xanthan Gum Sucralose Propylene Glycol Raspberry Flavour Distilled water	12 months/ until expiry
Sertraline	50mg/5ml	150ml	Rosemont	£23.09	Nil	0.4mg/ 5ml	70mg/ 5ml	Sodium -14.8mg/5ml;	24 months/ 28 days
Sodium Chloride	5mmol/1ml	100ml	OPS (via Cardiff and Vale University Health Board)	£6.39	Nil	Nil	Nil	Sodium Chloride ph. Eur (113) Potassium Sorbate Ph. Eur (7978) (equivalent to 6.7 micromols potassium per ml) Citric Acid Monohydrate Ph. Eur (6596) Water for Irrigation (213).	12 months
			OPS (via Special Products Ltd.)	£18.59	Nil	Nil	Nil	Sterile water	3 years/7 days
			Torbay Pharm.	£14.96	Nil	Nil	Nil	Water for injection	3 years/7 days

Spironolactone	50mg/5ml	125ml	OPS (via Prulab Pharma.)	£25.00	Nil	Nil	3%w/v = 3g/100ml = 150mg/5ml	Methyl Hydroxybenzoate Ethyl Hydroxybenzoate Acesulfame K Disodium Phosphate Anhydrous Citric Acid Monohydrate Xantham gum Colouring (E160a) Flavouring Maltitol Aniseed flavour Propylene glycol	12 months/ 30 days
			Rosemont	£27.75	Nil	Nil	0.15ml/ 5ml (density 1.036g/1ml)	Sodium – 0.9mg/5ml	12 months
Tacrolimus	5mg/5ml	100ml	Rosemont	£290	Nil	Nil	437.5mg/5ml	Sodium – 6.2mg/5ml	18 months

References

1. <https://www.rcpch.ac.uk/resources/using-standardised-strengths-unlicensed-liquid-medicines-children-joint-position>
2. Aclardian Limited – information via email (3rd March 2020)
3. Nova Laboratories Ltd – information via email (9th March 2020)
4. NPPG <https://www.barnsleyccg.nhs.uk/CCG%20Downloads/Members/Medicines%20management/Area%20prescribing%20committee/201902%20-%20APC%20Memo%20Enclosure%20-%20BNFC%20Standard%20Strengths%20of%20Unlicensed%20Paed%20Medicines.pdf> (accessed March 2020)
5. Oxford Pharmacy Store – information via email (16th March 2020)
6. Rosemont Pharmaceuticals Ltd. – information via email (11th march 2020)
7. Rosemont website <https://www.rosemontpharma.com/> (accessed March 2020)
8. Torbay Pharmaceuticals – information via email (3rd March 2020)
9. Torbay Pharmaceuticals website <https://torbaypharmaceuticals.nhs.uk/products/> (accessed March 2020)