

South Australian Neonatal Medication Guidelines

# Neonatal Parenteral Nutrition Solution (PNS)

Starter PNS, FMC Starter PNS, Standard preterm PNS,  
7.5% Glucose preterm PNS, High Sodium PNS,  
Concentrated preterm PNS, 34 weeks to term PNS

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**Note:**

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.


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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

This is a High Risk Medication 

## Synonyms

Total parenteral nutrition (TPN), PNS

## Dose and indication

### Intravenous infusion

Refer to Unit policy

## Preparation and Administration

### Continuous intravenous infusion

Administer through a Central Venous Catheter (UVC/PCVC).

Administration via peripheral IV catheters only to be used on discussion with Neonatal Consultant using selected solutions (e.g. starter solutions). Use with caution and monitor IV site.



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**Formulation Composition (per 1000mL)**

	Please note site-specific Starter PNS		Standard Preterm PNS	Concentrated Preterm PNS*	34 weeks to term PNS*	7.5% Glucose Preterm PNS*	High Sodium Preterm PNS*
	Starter PNS (WCH)	Starter PNS (FMC ONLY)					
Amino Acid (as Primene®) (g)	37.5	25	30	40	23	30	30
Glucose (g)	100	100	100	100	120	75	100
Sodium (mmol)	20	-	34	50	25	34	60
Potassium (mmol)	-	-	22	35	20	22	22
Magnesium (mmol)	1.5	-	1.5	1.5	1.5	1.5	1.5
Calcium (mmol)	17	-	17	22	7	17	17
Chloride (mmol)	10.1	4.6	12.7	39.6	28.2	12.7	30.7
Phosphate (mmol)	10	-	13	15	4	13	13
Acetate (mmol)	-	-	26	26	16.2	26	34
Zinc (microgram)	3270	-	3270	4900	1900	3270	3270
Selenium (microgram)	20	-	20	30	20	20	20
Iodide (microgram)	8.16	-	8.16	12	8.16	8.16	8.16
Heparin (units)	500	-	500	500	500	500	500
Osmolarity (mOsmol/L)	933	Not listed	944	1092	957	805	996
<b>Max rate</b>	80ml/kg/day	80ml/kg/day	135 ml/kg/day	100 ml/kg/day	135 ml/kg/day	135 ml/kg/day	135 ml/kg/day
*SITES DO NOT STOCK ALL PNS IN THE TABLE ABOVE – CHECK WITH YOUR PHARMACIST FOR AVAILABILITY. ORDERS FROM BAXTER ARE APPROX. 48-72HOUR TURNAROUND TIME (OR UP TO 5 DAYS IF ON OR CLOSE TO THE WEEKEND).							
<b>Store in fridge. Stable at room temperature below 25°C for 5 days.</b>							

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## References

> Bolisetty S, Osborn D, Sinn J et al, Standardised neonatal nutrition formulations – Australasian Neonatal Nutrition Group consensus update 2017, NSW

## Document Ownership & History

**Developed by:** SA Maternal, Neonatal & Gynaecology Community of Practice  
**Contact:** [Health.NeoMed@sa.gov.au](mailto:Health.NeoMed@sa.gov.au)  
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