



## NEONATAL MEDICATION GUIDELINE

# Glyceryl Trinitrate (Topical)

**Scope (Staff):** Nursing, Medical and Pharmacy Staff

**Scope (Area):** KEMH NICU, PCH NICU, NETS WA

This document should be read in conjunction with the [Disclaimer](#).

## Quick Links

[Dose](#)

[Administration](#)

[Side Effects &  
Interactions](#)

[Monitoring](#)

## Restrictions

[Formulary: Restricted](#)

## Description

Drug Class

## Presentation

**Ointment:** 0.2% (30g tube)

## Storage

Store at room temperature, below 25°C.

## Dose

### Peripheral tissue ischaemia secondary to arterial line complications

#### Topical:

4 mm / kg / application

Repeat dose every 8 hours if required.

## Dose Adjustment

**Renal Impairment:** Not documented

**Hepatic Impairment:** Not documented

## Administration

### Topical

Apply a thin ribbon to the affected area(s) whilst wearing gloves

## Side Effects

**Common:** Flushing, vasodilation, venous pooling, nausea, vomiting.

**Serious:** Tachycardia, paradoxical bradycardia, hypotension.

## Interactions

Avoid concomitant use with sildenafil or nitric oxide.

## Monitoring

Cardiac monitoring, blood pressure, respiratory function, application site reactions.

## Comments

Glyceryl trinitrate is well absorbed across intact skin, delivering the highest dose to the area directly beneath.

The onset of action is within 1 hour, and the haemodynamic effect lasts up to 6 hours.

If any adverse effects occur, wipe off excess ointment.

## Related Policies, Procedures & Guidelines

### **CAHS Clinical Guidelines:**

[Umbilical Arterial and Venous Catheters \(UAC/UVC\) Insertion, Management and Removal](#)

[Peripheral Arterial Catheter Insertion and Removal](#)

### **WNHS Pharmaceutical and Medicines Management Guidelines:**









[Medication Administration](#)

## References

Baserga MC, Pur A, Sola A. The use of topical nitroglycerine ointment to treat peripheral tissue ischaemia secondary to arterial line complications in neonates. *J Perinatol* 2002;22(5):416-9

Takemoto CK, Hodding JH, Kraus DM. *Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients.* 27th ed. Hudson (Ohio): Lexicomp; 2020. p1713.

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