Topical dermal anaesthesia for blood taking, venous accessing and cannulation - Tetracaine (amethocaine) gel 4% (Angel®) OR Lidocaine 2.5% + prilocaine 2.5% cream (Emla® 5%)

SESLHDPR/774

POLICY STATEMENT

The Registered Nurse (RN) / Registered Midwife (RM) is authorised to instigate nurse/midwife-initiated medication without an authorised prescriber's order under the specific circumstances set out in the **INDICATIONS** section and provided there are no contraindications present.

It is important for nursing and midwifery staff to remain aware that:

- Minor ailments may be symptoms of other more serious diseases or may be adverse reactions to medication already prescribed
- Nurse-initiated medication may interact with the patient's prescribed medication
- The maximum daily recommended dose of the medication must not be exceeded[1]

The administering nurse/midwife must record the administration on an approved paper or electronic medication chart, clearly indicating that the medicine was nurse initiated.

If the patient continues to require the medication (i.e., more than two doses in 24 hours) then a medical officer (MO) must be consulted and a regular or PRN order obtained.

A change in the patient's condition such as newly occurring or increasing severity of symptoms must be reported to the MO and investigated.

INDICATIONS

Topical anaesthesia of the skin prior to the insertion of IV cannulas/access devices, blood sampling, or vaccination.
Commonly used in the paediatric population, to reduce the pain associated with these procedures.

CONTRAINDICATIONS

- Known allergies or hypersensitivity to local anaesthetics (e.g. bupivacaine, levobupivacaine, lidocaine (lignocaine), prilocaine, ropivacaine, tetracaine), other ingredients or any of the excipients.
- Glucose-6-phosphate dehydrogenase deficiency
- Congenital or idiopathic methaemoglobinaemia.

PRECAUTIONS

- Do not apply to skin that is irritated or broken or with signs of local infection.
- Should not be applied to or near to the eyes, middle ear or genital mucosa.
- Use caution in children under 3months due to the risk if methaemoglobinuria.
- Maximum application time must not exceed 1hour.

Topical dermal anaesthesia for blood taking, venous accessing and cannulation - Tetracaine (amethocaine) gel 4% (Angel®) OR Lidocaine 2.5% + prilocaine 2.5% cream (Emla® 5%)

SESLHDPR/774

Due to absorption risk if used incorrectly or on broken skin, use caution in the following patient groups:

- Debilitated, elderly or acutely ill patients
- Patient has cardiac disease
- Porphyric patients (Haematological disorder)
- Use in pregnancy is safe (category A), and safe in small doses in lactation[2]

HISTORY/ASSESSMENT

Ensure an A-G Nursing Assessment is complete prior.
Refer to MO if precautions present.

PROTOCOL/ ADMINISTRATION GUIDELINES

Caution: CHECK for allergies and/or contraindications

Drug	Dose	Route	Frequency
Lidocaine (lignocaine) 25 mg/g & Prilocaine 25 mg/g **(Emla®) cream**	***0 – 12 years:*** **Apply approx. $2 coin size (1 g/10 cm²)** under an occlusive dressing for 30 mins (maximum 1 hour)	**Topical**	**Max 3 sites**
	12 years and over including adults: **Apply approx. $2 coin size (1.5 g/10 cm² up to 2 g)** under an occlusive dressing for 30 mins (maximum 1 hour)		
Tetracaine gel 4% (Angel®) *Also known as Amethocaine*	***1 month – Adult:*** **Apply approx. $2 coin size (0.5 g or 2 cm diameter)** under an occlusive dressing for 30 mins (maximum 1 hour)	**Topical**	**Max 3 sites**

For sites who don't stock the cream/gel, dermal anaesthesia patches can also be used.

A 1 g dose of Emla® cream is achieved by squeezing Emla® from the tube into a circular area with diameter of approximately 20 mm (the size of a $2 coin) to a depth of approximately 4 mm. Keep the tube in close contact with the skin until the correct amount has been applied.
A 1 g dose of Emla® cream can also be achieved by squeezing a length of Emla® of approximately 3.5 cm from the tube.

Topical dermal anaesthesia for blood taking, venous accessing and cannulation - Tetracaine (amethocaine) gel 4% (Angel®) OR Lidocaine 2.5% + prilocaine 2.5% cream (Emla® 5%)

SESLHDPR/774

MONITORING - POTENTIAL ADVERSE EFFECTS/INTERACTIONS

PRACTICE POINTS

- Effects lasts 30 minutes – 2 hours after removal of medication; may cause temporary blanching and oedema of the skin

Monitoring:

- Monitor for local redness or irritation. Mild redness/blanching can be normal.
- Be aware of the possibility of systemic absorption, which is rare if used on unbroken skin for IV/IM procedures.[5] Ensure the skin is not broken prior to applying.

Adverse Reactions:
Local oedema, paleness, erythema, irritation are rare.
Allergic reactions and systemic adverse reactions (CNS depression) are rare. Avoid use on broken skin to prevent systemic absorption for this reason[2].

Drug interactions[2]:
Antiarrhythmic drugs. Lidocaine (lignocaine) should be used with caution in patients receiving antiarrhythmic drugs such as mexiletine and amiodarone.
Phenytoin and lidocaine (lignocaine) have additive cardiac depressant effects.

DOCUMENTATION

Administration must be recorded as a Nurse Initiated order on the approved electronic or paper medication chart.
A further record of the medication administered including indication, dose and effect must be included in the patient's health care record.

REFERENCES/FURTHER READING

1. NSW Health Policy Directive Medication Handling PD2022_032
2. MIMs Online. EMLA. May 2024.
3. Australian Medicines Handbook. Lidocaine with prilocaine. South Australia: Australian Medicines Handbook Pty Ltd, January 2024.
4. Australian Medicines Handbook. Tetracaine (skin). South Australia: Australian Medicines Handbook Pty Ltd, January 2024.
5. NSW Health. Safety Information 003/20: The risk of toxicity from topical anaesthetic products. 22 May 2020.

VERSION and APPROVAL HISTORY

Date	Version Number	Author and approval notes
May 2024	DRAFT	Rochelle Cummins, SESLHD ECAT and ED CNC
20 June 2024	1	Approved at SESLHD Drug and Therapeutics Committee.