South Australian Neonatal Medication Guidelines

Octreotide

50microgram/mL, 100microgram/mL, 500microgram/mL injection

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

Dose and Indications

Congenital Chylothorax

Intravenous Infusion

1 microgram/kg/hr increased daily by 1 microgram/kg/hr up to 10 microgram/kg/hr, if required.

Higher doses of up to 20 microgram/kg/hour have been used in persistent chylothorax

Refractory Hyperinsulinaemic Hypoglycaemia

Consult a Paediatric Endocrinologist prior to use

Intravenous Infusion

0.2 to 1 microgram/kg/hr

Subcutaneous

2 to 5 microgram/kg/dose, 6-8 hourly

Up titrate to desired effect. Initial response should occur within 8 hours

Preparation and Administration

Intravenous Infusion

Dilute the appropriate volume of octreotide (100 or 500 microgram/mL) using compatible fluid to a maximum concentration of 25microgram/mL

Infuse as a continuous infusion

Subcutaneous

Allow solution to come to room temperature prior to injection. Rotate injection sites. Use the concentration with the smallest volume to reduce injection site pain.

Administration may be aided by using a small plastic indwelling subcutaneous catheter (Insuflon®).

For doses less than 5microgram:

Draw up 0.4mL of 50microgram/mL injection solution (20microgram) and make up to a total volume of 1mL with sodium chloride 0.9%. The final concentration is 20microgram/mL octreotide.

For doses 5microgram or greater:

Use 50microgram/mL solution undiluted.

Compatible Fluids

Sodium Chloride 0.9%, Glucose 5%

Adverse Effects

Common

Flatulence, vomiting, diarrhoea, abdominal distension, hyperglycaemia, hypoglycaemia, hypothyroidism.

Necrotising enterocolitis has been reported in term neonates administered octreotide

Rare

Hepatic dysfunction, bradycardia, steatorrhea

Monitoring

- Blood glucose levels
- Signs and symptoms of necrotising enterocolitis
- Thyroid function

Practice Points

- Avoid abrupt withdrawal of octreotide to avoid biliary colic and pancreatitis. Infusion can be gradually decreased over 2 to 7 days
- In refractory hyperinsulinaemic hypoglycaemia, tachyphylaxis to treatment may occur within several days

References

- Saito M, Kamoda T, Kajikawa D et al, High Dose Octreotide for the Treatment of Chylothorax in Three Neonates, Journal of Neonatal Biology, 2016, vol 5, issue 2

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03/04/2020	V2.0	SA Health Safety and Quality Strategic Governance Committee	Formal review. Higher dose recommendation for chylothorax
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