Octreotide (Amber)

Introduction

Description
A synthetic analogue of somatostatin used in palliative care to relieve symptoms associated with unresectable hormone-secreting tumours (for example carcinoid), intractable diarrhoea related to high output ileostomies or inoperable bowel obstruction in patients with cancer.

Preparations

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Presentation</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Injection (as acetate)</td>
<td>50microgram/mL, 1mL amp 100microgram/mL, 1mL amp 500microgram/mL, 1mL amp</td>
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<tr>
<td>Injection (as acetate)</td>
<td>200microgram/mL multidose vial, 1mg in 5mL</td>
<td>Once opened, a multidose vial can be kept for up to 2 weeks at room temperature for day-to-day use</td>
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<tr>
<td>Sandostatin LAR® (Novartis)</td>
<td>10mg vial, 20mg vial, 30mg vial</td>
<td>All supplied with diluent filled syringe for deep intramuscular (IM) injection every 28 days</td>
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For prolonged storage, keep all unopened ampoules, vials and pre-filled syringes in a refrigerator.

Generally, the depot formulation is used only when symptoms have first been controlled with subcutaneous (SC) octreotide and has a relative bioavailability of about 60% compared to SC octreotide.

SC octreotide may require to continue for 14 days after commencing depot treatment.

Indications
May be recommended by a palliative care specialist for treatment of symptoms from hormone secreting tumours (neuro-endocrine), cancer-related bowel obstruction or tumour antisecretory effects.
Cautions

- **Insulin** requirements in type 1 diabetes may be reduced by up to 50%; monitor plasma glucose concentrations to guide dose reductions with both insulin and oral hypoglycaemic agents. Insulinoma may exacerbate hypoglycaemia.
- Cirrhosis or renal failure requiring dialysis may reduce elimination which may necessitate a dose reduction.
- Avoid abrupt withdrawal of short-acting octreotide after long-term treatment (may precipitate biliary colic caused by gallstones/biliary sludge).
- Use with caution in cardiac patients at risk of bradycardia.
- Hypothyroidism.

Contra-indications

- Hypersensitivity to octreotide, lanreotide or any of the ingredients.

Drug interactions

- Increases bioavailability of bromocriptine, reduces bioavailability of ciclosporin.
- May reduce vitamin B12 levels.

Side effects

- **Very common:** hyperglycaemia, headache, flatulence, nausea, abdominal pain, constipation, diarrhoea, gallstones (10–20% of patients on long term treatment), injection site pain.
- **Common:** impaired glucose tolerance, hypoglycaemia, hypothyroidism, dizziness, anorexia, bradycardia, dyspnoea, hyperbilirubinaemia, rash, itch.

Dose and administration

<table>
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<tr>
<th>Indication</th>
<th>Dose</th>
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<tr>
<td>Carcinoid, VIPomas, glucagonomas</td>
<td>50 microgram once or twice daily</td>
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<tr>
<td>Intractable diarrhoea (including that caused by chemotherapy and radiotherapy)</td>
<td>250 micrograms to 500 microgram/24h</td>
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<tr>
<td>Intestinal obstruction</td>
<td>250 micrograms to 500 microgram/24h</td>
</tr>
<tr>
<td>Tumour antisecretory effect</td>
<td>50 micrograms to 100 microgram twice daily</td>
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For continuous subcutaneous infusion (CSCI) use, seek specialist advice.
Practice points

- Let injection reach room temperature before use to reduce pain on injection.
- Rotate injection sites.
- Avoid hard or red areas and areas of tenderness or bruising.
- Recommended injection site for depot is the gluteal muscle.
- If necessary, the dose should be titrated upwards to achieve the desired response. When this has been achieved, it may subsequently be possible to reduce the dose to a lower maintenance level.
- For continuous subcutaneous infusion (CSCI), sodium chloride 0.9% or water for injection (WFI) as diluent to the largest possible volume is recommended.
- Gastrointestinal undesirable effects may be reduced by administering octreotide between meals or at bedtime.
- **Further information** – contact Specialist Palliative Care services/Palliative Medicine on-call advice service.

Resources and references
