Octreotide (amber)

Introduction

Description
A synthetic analogue of somatostatin used in palliative care to relieve symptoms associated with unresectable hormone-secreting tumours (e.g. 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><strong>Injection</strong> (as acetate)</td>
<td>50microgram/mL, 1mL amp 100microgram/mL, 1mL amp 500microgram/mL, 1mL amp</td>
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<tr>
<td><strong>Injection</strong> (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) (octreotide as acetate) <strong>Depot injection</strong> (microsphere powder for aqueous suspension)</td>
<td>10mg vial, 20mg vial, 30mg vial</td>
<td>all supplied with diluent filled syringe for deep IM injection every 28 days.</td>
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<tr>
<td><strong>Lanreotide</strong> Somatuline LA® (Ipsen) (lanreotide as acetate) <strong>Long acting injection</strong> (copolymer microparticles for aqueous suspension)</td>
<td>30mg vial</td>
<td>With vehicle for IM injection every 14 days</td>
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<tr>
<td>Somatuline Autogel® (Ipsen) <strong>Depot injection</strong> (prefilled syringe), (lanreotide as acetate)</td>
<td>60mg, 90mg, 120mg</td>
<td>for deep SC injection into the superior, external quadrant of the buttock 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 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 where reduced 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

Contraindications
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, gall stones (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>SC stat</th>
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<tr>
<td>Carcinoid, VIPomas, glucagonomas</td>
<td>50microgram once or twice daily</td>
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<tr>
<td>Intractable diarrhoea (including that caused by chemotherapy and radiotherapy)</td>
<td>250 to 500microgram/24h</td>
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<tr>
<td>Intestinal obstruction</td>
<td>300 to 500microgram/24h</td>
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<tr>
<td>Tumour-antisecretory effect</td>
<td>50 to 100microgram twice daily</td>
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For 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.
- Depot injection recommended injection site 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, sodium chloride 0.9% or WFI as diluent to the largest possible volume is recommended.

Patient and carer advice points

GI undesirable effects may be reduced by administering octreotide between meals or at bedtime. Patient Information leaflet (last revised 08/12) on the Electronic Medicines Compendium at www.medicines.org.uk.

Further information

Specialist Palliative Care services/Palliative Medicine on-call advice service.

References

Palliative Care Formulary (PCF4) on the Knowledge Network via Athens password (http://www.knowledge.scot.nhs.uk/home/portals-and-topics/palliative-care.aspx).