North of Tyne, Gateshead and North Cumbria Area Prescribing Committee
Shared Care Working Group

LANREOTIDE AND OCTREOTIDE -

Information for Treatment of Adults with acromegaly or neuroendocrine tumours in Primary Care

Formulary Approved Indication

Lanreotide and octreotide are included in the North of Tyne, Gateshead and North Cumbria Formulary for

- Treatment of individuals with acromegaly who require medical treatment of raised circulating levels of Growth Hormone (GH) and/or Insulin-like Growth factor-1 (IGF-1), including where these remain abnormal after surgery and/or radiotherapy.
- Treatment of patients with TSH secreting pituitary tumours
- Treatment of symptoms associated with neuroendocrine (particularly carcinoid) tumours.

Lanreotide and Octreotide are red medications for new patients, but are green plus for existing patients.

Background

Octreotide and lanreotide are pharmacological options for treatment of acromegaly, symptoms of which result primarily from the effects of excess growth hormone and insulin-like growth factor-1 (IGF-1) on various organ systems.

As somatostatin analogues also exert potent inhibitory effects on the secretion of various peptides of the gastroenteropancreatic endocrine system, they can control symptoms in neuroendocrine tumours too.

Dose

- Somatuline Autogel® 60mg, 90mg & 120mg autogel injections by deep subcutaneous injection into gluteal region every 28 days. May be given by self-injection (following appropriate training).
- Octreotide - octreotide (non-proprietary) or Sandostatin® 50, 100 & 500 micrograms. in 1ml & 1mg in 5ml injections by subcutaneous injection 1 - 3 times daily (or by intravenous infusion)
  - Sandostatin LAR®10mg, 20mg & 30mg long-acting injections by deep intramuscular injection into gluteal muscle every 28 days

Acromegaly

The recommended starting dose of lanreotide is 90mg, administered every 28 days. Dose is adjusted by the endocrinologist according to response. Patients being treated with a somatostatin analogue will have had initial treatment with subcutaneous octreotide, to establish sensitivity, and then transferred to a longer acting preparation (Sandostatin LAR is initiated at a dose of 20mg every 4 weeks, adjusted according to response). The 90mg dose of Lanreotide Autogel is equivalent to the 20mg dose of Sandostatin LAR.

Neuroendocrine tumours

The recommended starting dose of lanreotide is 60 to 120mg administered every 28 days. Dose is adjusted as above. Patients are treated with an initial dose of subcutaneous octreotide, to establish sensitivity, then transfer to Sandostatin LAR at a dose of 10-30mg or Lanreotide Autogel 60-120mg every 4 weeks adjusted according to response.
The subcutaneous preparation is continued for 2 weeks after starting the LAR preparation.

Monitoring in Acromegaly
The dose will be individualised by the consultant endocrinologist according to the response of the patient (as judged by a reduction in symptoms and/or a reduction in GH and/or IGF1 levels). If the desired response is not obtained, the dose may be increased. If complete control is obtained (based on GH levels under 1ng/ml, normalised IGF1 levels and/or resolution of symptoms), the dose or frequency of administration may be adjusted downwards.

Administration
Lanreotide Autogel should be injected via the deep subcutaneous route into the superior external quadrant of the buttock. The needle should be inserted rapidly to its full length, perpendicular to the skin.

Short acting Octreotide is administered by subcutaneous injection or by infusion following appropriate dilution, the LAR depot preparation by deep intragluteal IM injection.

Before administration transfers to take place in the patient's home or general practice, the endocrine nurse specialists will visit the practice to ensure district/practice nurses are informed about, and competent in making up the Sandostatin LAR solution (where used) and in injection techniques.

Contra-indications
- Hypersensitivity to lanreotide or octreotide, or product excipients.
- BNF reports possible effects on foetal growth in second and third trimesters. Not recommended in pregnancy or breastfeeding.

Cautions
- Impaired insulin and/or glucagon secretion may occur. In patients with concomitant diabetes mellitus, monitoring of glucose tolerance and antidiabetic treatment is recommended.
- For patients with liver or kidney dysfunction, dose reduction may be required.

Adverse-effects
These are predominantly gastrointestinal and include diarrhoea or constipation, abdominal pain, nausea, flatulence, cholelithiasis, gall bladder sludge (annual biliary ultrasound screening recommended which will be arranged through secondary care).

Less common adverse effects include: asthenia, fatigue, increased bilirubin, hot flushes, leg pain, malaise, headache, tenesmus, vomiting, abnormal glucose tolerance, hyperglycaemia, decreased libido, somnolence, pruritus, increased sweating.

Drug Interactions
The gastrointestinal effects of lanreotide /octreotide may reduce the intestinal absorption of co-administered drugs. Administration of lanreotide/ octreotide injection with ciclosporin may decrease blood levels of ciclosporin, which should therefore be monitored.

Other information
Somatostatin analogues are supplied through general practice prescribing or homecare arrangements.

Lanreotide/ octreotide should be stored in a refrigerator between 2°C and 8°C
See the manufacturer's SPC or BNF for more detailed prescribing information