PRESCRIBING INFORMATION

NEXIUM® 20mg/40mg Tablets (esomeprazole). Consult Summary of Product Characteristics before prescribing. Use: Nexium is a proton-pump inhibitor. **NEXIUM® Tablets:** Gastro Oesophageal Reflux Disease (GORD). *Helicobacter pylori* eradication in combination treatment with antibiotics. Healing of gastric ulcers and prevention of gastric and duodenal ulcers associated with NSAID therapy. Zollinger Ellison Syndrome. **Presentation:** Gastro-resistant tablets containing 20mg or 40mg esomeprazole. **Dosage and administration:** ***Adults: (including the elderly) and adolescents:*** **NEXIUM® 20mg/40mg Tablets: GORD:** Adults and adolescents from the age of 12, treatment of Reflux Oesophagitis: 40mg once daily (od) for 4 weeks. An additional 4 weeks treatment is recommended for patients in whom oesophagitis has not healed or who have persistent symptoms. Long-term management of patients with healed oesophagitis to prevent relapse: 20mg od. Symptomatic treatment of GORD: 20mg od (in patients without oesophagitis). If symptoms have not been controlled after 4 weeks, the patient should be further investigated. Once symptoms have resolved, subsequent symptom control can be achieved in adult patients using on-demand Nexium 20mg od, when needed. ***Helicobacter pylori* eradication (in combination with appropriate antibiotics):** Adults only, healing of *H. pylori* associated duodenal ulcers and prevention of relapse of peptic ulcers in patients with *H. pylori* associated ulcers. Nexium 20mg, amoxycillin 1g, clarithromycin 500mg, all twice daily for 7 days. **Patients requiring continued NSAID therapy:** Adults only, healing of gastric ulcers associated with NSAID therapy: The usual dose is 20mg once daily. The treatment duration is 4-8 weeks. Prevention of gastric and duodenal ulcers associated with NSAID therapy in patients at risk: 20mg once daily. In NSAID treated patients at risk of developing gastric and duodenal ulcers, subsequent symptom control using an on-demand regimen is not recommended. **Treatment of Zollinger Ellison Syndrome:** Adults only, initial dose 40mg bd, then to be individualised, treatment to continue for as long as needed. Patients usually controlled on 80 to 160mg daily doses. Doses above 80mg to be taken bd. **Renal impairment:** No dose adjustment needed. Patients with severe renal insufficiency should be treated with caution. **Hepatic impairment:** No dose adjustment needed except in patients with severe liver impairment where a maximum daily dose of 20mg should not be exceeded. **Adolescents:** Nexium Tablets may be used for GORD in adolescents from the age of 12. **Children below the age of 12 years:** Nexium should not be used in children since no data is available. **Elderly:** No dose adjustment needed. **Contraindications:** Known hypersensitivity to esomeprazole, substituted benzimidazoles or any other constituents of Nexium. Esomeprazole, like other PPIs, should not be administered with atazanavir. **Precautions:** In the presence of any alarm symptoms and when gastric ulcer is suspected or present, malignancy should be excluded, as treatment may alleviate symptoms and delay diagnosis. Patients on long-term treatment should be kept under regular surveillance. Patients on on-demand treatment should contact their physician if their symptoms change in character. When prescribing Nexium for on-demand therapy, the implications for interactions with other pharmaceuticals should be considered. When prescribing Nexium for *H. pylori* eradication, possible drug interactions for all components in the triple therapy, particularly clarithromycin, should be considered. Nexium Tablets contain sucrose. Patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency should not take Nexium Tablets. Ketoconazole or itraconazole absorption may be reduced. When Nexium is combined with drugs metabolised by CYP2C19, such as diazepam, citalopram, imipramine, clomipramine, phenytoin, etc. a dose reduction could be needed. This should be considered especially when prescribing Nexium for on-demand therapy. Plasma concentrations of phenytoin should be monitored when treatment with Nexium is introduced or withdrawn. In warfarin, or other coumarine derivative-treated patients, monitoring is recommended when initiating and ending concomitant treatment. **Pregnancy & Lactation:** Limited data on exposed pregnancies are available. Avoid in pregnancy unless no safer alternative. It is not known whether esomeprazole is excreted in breast milk. Discontinue breast-feeding if Nexium is considered essential. **Undesirable events:** None of the following were found to be dose-related. ***Blood and lymphatic system disorders –*** *Rare:* leukopenia, thrombocytopenia; *Very rare:* agranulocytosis, pancytopenia. ***Immune system disorders –*** *Rare:* hypersensitivity reactions e.g. fever, angioedema and anaphylactic reaction/shock. ***Metabolism and nutrition disorders –*** *Uncommon:* peripheral oedema; *Rare:* hyponatraemia ***Psychiatric disorders –*** *Uncommon:* insomnia; *Rare:* agitation, confusion, depression; *Very rare:* aggression, hallucinations. ***Nervous system disorders –*** *Common:* headache; *Uncommon:* dizziness, paraesthesia, somnolence; *Rare:* taste disturbance. ***Eye disorders –*** *Rare (Tablets):* blurred vision. Irreversible visual impairment has been reported in isolated cases of critically ill patients who have received omeprazole (the racemate) intravenous injection, especially at high doses, but no causal relationship has been established. ***Ear and labyrinth disorders –*** *Uncommon:* vertigo. ***Respiratory, thoracic and mediastinal disorders –*** *Rare:* bronchospasm. ***Gastrointestinal disorders –*** *Common:* abdominal pain, constipation, diarrhoea, flatulence, nausea/vomiting; *Uncommon:* dry mouth; *Rare:* stomatitis, gastrointestinal candidiasis. ***Hepatobiliary disorders –*** *Uncommon:* increased liver enzymes; *Rare:* hepatitis with or without jaundice; *Very rare:* hepatic failure, encephalopathy in patients with pre-existing liver disease. ***Skin and subcutaneous tissue disorders –*** *Uncommon:* dermatitis, pruritus, rash, urticaria; *Rare:* alopecia, photosensitivity; *Very rare:* erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis (TEN). ***Musculoskeletal, connective tissue and bone disorders –*** *Rare:* arthralgia, myalgia; *Very rare:* muscular weakness. ***Renal and urinary disorders –*** *Very rare:* interstitial nephritis. ***Reproductive system and breast disorders –*** *Very rare:* gynaecomastia. ***General disorders and administration site conditions –*** *Rare:* malaise, increased sweating. **Legal category:** POM. **Marketing authorisation number:** Nexium® 20mg Tablets PL 17901/0068; Nexium® 40mg Tablets PL 17901/0069. **Basic NHS cost: Tablets 20mg:** Blisters of 7 tablets (Hospital pack): £4.63; 28 tablets*: £18.50; **Tablets 40mg:** Blisters of 7 tablets (Hospital pack): £6.30; 28 tablets*: £25.19 (*also available in hospital unit doses). **Further information is available from the Marketing Authorisation holder:** AstraZeneca UK Limited, 600 Capability Green, Luton, LU1 3LU, UK. NEXIUM® is a trade mark of the AstraZeneca group of companies. AZ 05/2007.

Adverse events should be reported to AstraZeneca UK Medical Information (Tel: 0800 783 0033). In addition, information about adverse event reporting can be found at www.yellowcard.co.uk

Nexium®
esomeprazole
Keeps acid from eroding daily life

PRESCRIBING INFORMATION

LOSEC® Capsules and LOSEC MUPS® (omeprazole) Consult Summary of Product Characteristics before prescribing. Use: Treatment of oesophageal reflux disease, duodenal and benign gastric ulcers. Relief of associated dyspeptic symptoms. *Helicobacter pylori* eradication in combination with antibiotics. Prophylaxis of acid aspiration. Zollinger-Ellison syndrome. 10 and 20mg strengths only for relief of reflux and ulcer-like symptoms associated with acid-related dyspepsia. 10 and 20mg strengths only for treatment and prophylaxis of NSAID-benign gastric/duodenal ulcers and gastroduodenal erosions. **Presentation:** Losec Capsules and Tablets containing 10, 20 and 40mg of omeprazole. **Dosage and administration:** ***Adults including the elderly:*** **Oesophageal reflux disease including reflux oesophagitis:** 20mg once daily for 4 weeks, continue to 8 weeks if required. In reflux oesophagitis refractory cases 40mg once daily for 8 weeks, a 20mg daily dose may be continued. **Acid Reflux disease:** 10mg once daily for long-term maintenance increasing to 20mg once daily if required. **Duodenal and benign gastric ulcers:** 20mg once daily for 4-8 weeks, in severe/recurrent cases increase to 40mg once daily. Long-term therapy 20mg once daily reducing to 10mg once daily in certain cases if necessary. Prevention of relapse with duodenal ulcers 10mg once daily increasing to 20mg once daily of required. ***Helicobacter pylori* eradication in peptic ulcer disease:** 40mg once daily or 20mg once daily if using antimicrobial agents in triple or dual therapy. Triple therapy (duodenal ulcer disease) amoxicillin 500mg and metronidazole 400mg three times a day for 1 week, or clarithromycin 250mg and metronidazole 40mg or tonodazole 500mg twice a day for 1 week, or amoxicillin 1g and clarithromycin 500mg twice a day for one week. Dual therapy (duodenal ulcer disease) amoxicillin 750mg-1g twice daily, or clarithromycin 500mg three times a day for 2 weeks. Dual therapy (gastric ulcer disease) amoxicillin 750mg-1g twice daily for 2 weeks. **Prophylaxis of acid aspiration:** 40mg in the evening and 2-6 hours before surgery. **Zollinger-Ellison syndrome:** 60mg once daily and adjusted as needed in the range of 20-120mg per day. If use 80-120mg per day divide dose and give twice daily. **Acid-related dyspepsia:** 10-20mg once daily for 2-4 weeks, investigate if no response. **NSAID-associated gastric/duodenal ulcers or gastroduodenal erosions:** 20mg once daily for 4 weeks, 4 further weeks can be taken if needed. If patients have a previous history of gastroduodenal lesions use 20mg once daily continuously. ***Children over 1 with severe ulcerating reflux oesophagitis:*** Weight controlled, 10-20kg dosage is 10mg once daily, above 20kg dosage is 20mg once daily. If needed increase to 20, 40mg respectively for 4-12 weeks. **Renal impairment:** No dose adjustment needed. **Hepatic impairment:** maximum daily dose of 20mg. **Patients with swallowing difficulties:** MUPS may be dispersed in a small amount of water or juice, capsules may be opened and dispersed in the same way. **Contraindications:** Known hypersensitivity to omeprazole or product constituents. In gastric ulcers, exclude malignancy before starting therapy. Not to be administered with atazanavir. **Precautions:** Monitor patients for flare up of disease symptoms when switching from capsules to MUPS. Treatment with acid-reducing drugs may lead to increased risk of gastrointestinal infections. Monitor serum B_{12} levels when treating severely ill children long term. Patents with galactose intolerance or related conditions should not take Capsules. **Interactions:** Ketoconazole and itraconazole absorption may be reduced. Diazepam, phenytoin and warfarin elimination can be prolonged, phenytoin and warfarin dose may need to be reduced. When used concomitantly omeprazole and clarythromycin plasma concentrations are increased. May increase digoxin bioavailability if used simultaneously. Serum tacrolimus levels may increase if used simultaneously. **Pregnancy and lactation:** can be used in pregnancy, excreted in breast milk but not likely to impact on child. **Undesirable events:** Generally mild and reversible, include headache, diarrhoea, constipation, abdominal pain, nausea/vomiting and flatulence. Dizziness, light headedness, feeling faint, somnolence, insomnia and vertigo. Increased liver enzymes. Rash, pruritis or urticaria. Malaise. Mental confusion, aggitaion, aggression, depression, and hallucinations in severely ill patients. Gynaecomastia. Dry mouth, stomatitis gastrointestinal candidiasis. Leukopenia, thrombocytopenia, agranulocytosis and pancytopenia. Encephalopathy, hepatitis, jaundice, hepatic failure. Arthritic and myalgic symptoms, muscular weakness. Impotence. Photosensitivity, bullous eruption erythema multiforme, Stevens-Johnson syndrome, toxic epidermal necrolysis, alopecia. Hypersensitivity reactions. Increased sweating, peripheral oedema, blurred vision, taste disturbance and hyponatraemia. **Legal category**: POM **Marketing authorisation number:** Losec Capsules PL 17901/0132-34. Losec MUPS PL 17901/0137-39. **Basic NHS cost**: Losec 10, 20, 40mg capsules and MUPS: £19.34, £29.22 and £14.61 respectively. **Further information is available from the Marketing Authorisation holder**: AstraZeneca UK Limited, 600 Capability Green, Luton, LU1 3LU, UK. Losec and Losec MUPS are trade mark(s) of the AstraZeneca group of companies. AZ 09/2006

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AstraZeneca

Date of Preparation: September 2007 NEXP12949

INTEGRATED CARE PATHWAY EXAMPLE

This document has been produced to provide an example of an ICP in the GI area.

Trafford Dyspepsia Integrated Care Pathway

Trafford Healthcare NHS Trust
NHS Trafford Primary Care Trust

PATIENT PRESENTS TO GP WITH NEW OR REPEAT DYSPEPSIA-TYPE SYMPTOMS

Alarm signals
- Yes → **Refer for opinion via HSC205 referral**
- No →

Give lifestyle advice and antacids +/- alginates
Consider removal of any gastro-irritant medicines

Symptoms resolved
- Yes → No further treatment If symptoms recur re-enter pathway
- No →

Reflux-type dyspepsia
- Yes → Prescribe 4-week course of Lansoprazole 30mg caps od or Omeprazole 20mg caps od and review
- No →

Perform test for H.pylori
- Negative → Reflux-type dyspepsia
- Positive →

Prescribe H.pylori-eradication therapy

Symptoms resolved
- No → Reflux-type dyspepsia
- Yes →

No further treatment
If symptoms recur re-enter pathway

Symptoms resolved
- Yes → Stop treatment or if maintenance treatment required:
  - Step down to Lansoprazole 15mg caps od or
  - Maintain on omeprazole caps 20mg od or
  - Esomeprazole 20mg od on demand

  Review annually
  If symptoms recur re-enter pathway
- No →

Prescribe 4-week course of Esomeprazole 40mg od and review

Symptoms resolved
- Yes → Step down to:
  Esomeprazole 20mg od or
  Esomeprazole 20mg od on demand
  Review annually
  If symptoms recur re-enter pathway
- No →

Refer for opinion to
- **Tier two dyspepsia service**
- **TGH GI clinic**

- **Alarm signals:**
  - Unintentional weight loss ≥ 3kg
  - Evidence of GI blood loss
  - True progressive dysphagia or odynophagia
  - Persistent continued vomiting
  - Epigastric mass
  - Unexplained iron-deficiency anaemia
  - Previous gastric surgery
  - Suspicious barium meal
  - Patients aged 55 years and older with unexplained and persistent recent-onset dyspepsia

See reverse for further guidance & advice
Printing costs supported by AstraZeneca UK Ltd.

Dyspepsia

Dyspepsia can be defined broadly to include patients with recurrent epigastric pain or discomfort, heartburn or acid regurgitation, with or without bloating, nausea or vomiting

Initial therapeutic strategies for dyspepsia are empirical treatment with a proton pump inhibitor (PPI) or testing for and treating H.pylori

Gastro-oesophageal Reflux Disease (GORD)

The predominant symptom of GORD is heartburn.

"Heartburn is a burning feeling rising from your stomach or lower chest towards your neck"

- Acid reflux is a common condition and patients are often anxious and need reassuring
- Offer patients who have GORD a full-dose PPI for 1 or 2 months
- Reflux may occur with normal endoscopic appearances
- Reflux symptoms which respond to treatment do not require endoscopic confirmation
- H.pylori is not implicated in the aetiology of reflux

Functional Dyspepsia – Also known as Non-Ulcer Dyspepsia (NUD)

Describes patients with dyspepsia, who have normal endoscopic findings.

- Acid suppressor drugs may be of little benefit as symptoms are not always acid-related
- A trial treatment with a pro-kinetic drug (e.g. domperidone or metoclopramide) is worthwhile
- The role of H.pylori in NUD remains controversial – eradication may benefit some patients

Peptic Ulceration

- Offer H.pylori-eradication therapy to H.pylori-positive patients
- Stop the use of NSAIDs where possible (see guidance)

Lifestyle Advice

- Weight loss if necessary
- Don't smoke
- Avoid large meals and excessive amounts of fluid – in particular avoid fatty/spicy foods, excessive alcohol, caffeine or chocolate
- Raise the head of the bed by 6 inches

Further advice can be obtained from:
Gastroenterology Department, Trafford General Hospital
Tel: 0161 748 4022
Medicines Management Team, Trafford PCT
Tel: 0161 873 9500

H.pylori Testing and Treatment

Testing

Faecal antigen testing is the investigation of choice

Treatment

1st line: Lansoprazole 30mg caps bd, Amoxicillin 1g bd, Clarithromycin 500mg bd in combination for 1 week

Penicillin-sensitive patients: substitute Metronidazole 400mg bd for Amoxicillin

PPI Advice

Lansoprazole 30mg capsules or Omeprazole 20mg capsules are the recommended treatment PPIs for **new** patients

Esomeprazole is recommended **only** for patients who fail to respond to the above regime

Patients should have their treatment regularly reviewed and stepped down or stopped as appropriate

It should be remembered that some PPIs do have interactions e.g. warfarin (intermittent use may cause problems with INR control)

N.B. If a PPI is initiated by a physician in secondary care, other than a gastroenterologist, review the need/benefit after a 4-week trial period.

Drugs exacerbating GORD

Drugs affecting lower oesophageal sphincter tone

e.g. anticholinergics, calcium channel blockers particularly nifedipine, nitrates, theophylline

Drugs causing oesophageal mucosal injury

e.g. NSAIDs, corticosteroids, tetracycline, potassium chloride, iron, bisphosphonates

NSAIDs

Try to stop NSAIDs and use alternative analgesics where possible

Where NSAID use is unavoidable, select a NSAID with lower GI risk e.g. ibuprofen, diclofenac or naproxen using the lowest possible dose. Consider coprescription of a PPI or misoprostol

Especially in high risk patients:

- Patient has a definite history of peptic ulcer disease
- Patient is also taking corticosteroids or anticoagulants etc
- Patient has a serious co-morbid condition e.g. cardiovascular disease
- Elderly aged > 65yrs

If symptoms persist refer for endoscopy