Hyposec®

omeprazole 20mg

This information is intended for use by health professionals
1. Qualitative and quantitative composition
Hyposec® 20 mg hard gastric resistant capsules.
Supplied with Amoun effer. Tab 5 capsule contained 8.4 mg sodium. See the leaflet of excipients, see section 4.3.
2. Pharmaceutical form
Hyposec® 20mg: Capsule shaped white yellow pellets / hard gelatin capsules with pink transparent body imprinted with hyposec in black ink and burgundy red transparent cap containing white to off-white spherical pellets.
3. Clinical particulars
3.1 Therapeutic indications
Omeprazole is indicated in adults and children over 1 year of age and ≥ 10kg :
For adults and children over 12 years:
• Treatment of duodenal ulcers. • Prevention of relapse of duodenal ulcers.
• Treatment of gastric ulcers. • Prevention of relapse of gastric ulcers.
• Treatment of Helicobacter pylori infection in multiple antibiotic / bifacular for pylori infection. • Prevention of NSAID-associated gastric and duodenal ulcers in patients at risk.
• Treatment of NSAID-associated gastric and duodenal ulcers. • Prevention of NSAID-associated gastric and duodenal ulcers in patients at risk.
• Treatment of reflux oesophagitis. • Long-term management of patients with healed reflux oesophagitis.
• Treatment of symptomatic gastro-oesophageal reflux disease. • Treatment of Zollinger-Ellison syndrome.
Paediatric use
• Treatment of reflux oesophagitis in ≥ 10kg.
• Treatment of reflux oesophagitis. • Symptomatic treatment of heartburn and acid regurgitation in gastro-oesophageal reflux disease.
• Treatment of duodenal ulcers caused by H.pylori in children over 1 year of age. • In combination with antibiotics in treatment of duodenal ulcers caused by H.pylori.
3.2 Posology and method of administration
Posology
Adults
Treatment of duodenal ulcers: The recommended dose is **Hyposec®** 20 mg once daily. In most patients healing occurs within four weeks. For those patients who may not be fully healed after the initial course, healing usually occurs during a further four weeks treatment period in patients with purely symptomatic duodenal ulcer. **Hyposec®** 20 mg has capsules once daily is also recommended.
Prevention of relapse of duodenal ulcers: For the prevention of relapse in patients with purely symptomatic duodenal ulcer **Hyposec®** 20mg once daily. If needed the dose can be increased to **Hyposec®** 20 mg four capsules once daily.
Treatment of gastric ulcers: The recommended dose is **Hyposec®** 20 mg once daily. In most patients healing occurs within four weeks. For those patients who may not be fully healed after the initial course, healing usually occurs during a further four weeks treatment period. In patients with refractory gastric ulcers, a dose of 40 mg once daily is recommended (see section 5.1 for more information).
Prevention of relapse of gastric ulcers: For the prevention of relapse in patients with gastric recurrence gastric ulcers the recommended dose is **Hyposec®** 20 mg four capsules once daily.
Treatment of Helicobacter pylori infection: For the treatment of Helicobacter pylori infection and duodenal ulcer disease, the following dual or triple therapies are recommended according to local guidelines:
• **Hyposec®** 20 mg + clarithromycin 500 mg + amoxicillin 1,000 mg, each twice daily for one week.
• **Hyposec®** 20 mg + clarithromycin 500 mg + metronidazole 400 mg, each twice daily for one week.
• **Hyposec®** 20 mg three capsules once orally with amoxicillin 500 mg and metronidazole 400 mg, or clindamycin 150 mg, each twice daily for one week.
Treatment of NSAID-associated gastric and duodenal ulcers: For the treatment of NSAID-associated gastric and duodenal ulcers the recommended dose is **Hyposec®** 20 mg once daily. In most patients healing occurs within four weeks. For those patients who may not be fully healed after the initial course, healing usually occurs during a further four weeks treatment period.
Prevention of NSAID-associated gastric and duodenal ulcers in patients at risk for the prevention of NSAID-associated gastric ulcers and duodenal ulcers in patients at risk, and upper GI, previous history of gastric and duodenal ulcers, previous history of upper GI bleeding) the recommended dose is **Hyposec®** 20 mg once daily.
Treatment of reflux oesophagitis: The recommended dose is **Hyposec®** 20 mg once daily. In most patients healing occurs within four weeks. For those patients who may not be fully healed after the initial course healing usually occurs during a further four weeks treatment period. In patients with severe reflux disease, a dose of 40 mg once daily is recommended.
Long-term management of patients with healed reflux oesophagitis: For the long-term management of patients with healed reflux oesophagitis the recommended dose is Omeprazole 20 mg once daily. If needed the dose can be increased to **Hyposec®** 20 mg four capsules once daily.
Treatment of symptomatic gastro-oesophageal reflux disease: The recommended dose is **Hyposec®** 20 mg once daily. In most patients symptoms are controlled on this dose.
If symptom control has not been achieved after four weeks treatment with **Hyposec®** 20 mg daily, further investigation is recommended.
Treatment of Zollinger-Ellison syndrome: The dose of **Hyposec®** should be individualized and treatment should continue as long as clinically indicated. The recommended initial dose is Omeprazole 60 mg daily. If symptom control cannot be achieved with this dose, then the dose should be titrated on an individual basis.
Paediatric population
Children and adolescents 12 years of age and ≥ 10kg:
Treatment of reflux oesophagitis: Symptomatic treatment of heartburn and acid regurgitation in gastro-oesophageal reflux disease.

Bodyweight	Dosage	Frequency
10 kg to 20 kg	10 mg (1 tablet)	Once daily for up to 8 weeks (may be given for a further 4 weeks if needed)
More than 20 kg	20 mg (1 tablet)	Once daily for up to 8 weeks (may be given for a further 4 weeks if needed)

Treatment of duodenal ulcers caused by H.pylori:

Bodyweight	Dosage
10 kg to 20 kg	Omeprazole 10 mg + clarithromycin 15 mg/kg + amoxicillin 50 mg/kg, all given once daily for one week. The first dose should be administered before the start of treatment.
More than 20 kg	Omeprazole 20 mg + clarithromycin 500 mg + amoxicillin 1,000 mg, all given twice daily for one week.

Elderly: No dose adjustment is necessary.
Renal impairment: No dose adjustment is required in patients with impaired renal function (see section 5.2).
Hepatic impairment: In patients with impaired hepatic function a dose of 10-20 mg may be sufficient (see section 5.2).
Method of administration
Method of administration: It is recommended to take **Hyposec®** capsules in the morning, swallowed whole with half a glass of water. The capsules must not be chewed or crushed. For patients with swallowing difficulties and for children who can drink or swallow with a thick food. Patients can open the capsule and swallow the contents with half a glass of water or after mixing the contents in a slightly acidic fluid e.g fruit juice or applesauce, or (more carbonated) water. Patients should be advised that the dispersion should be taken immediately (or within 30 minutes) and always be stirred just before drinking and rinsed down with half a glass of water to ensure complete administration of the dose and that the pellets which fall at the bottom of a glass of water. The tube is safe for use with nasogastric tubes.
4.3 Contraindications
Hypersensitivity to the active substance, substituted benzimidazoles or to any of the excipients listed in the section 6.1 Omeprazole like other proton pump inhibitors (PPIs) must not be used concomitantly with nelfinavir (see section 4.5).
4.4 Special warnings and precautions for use
Long-term treatment: Patients treated with omeprazole, for long-term management of patients with healed reflux oesophagitis, should be regularly monitored during maintenance treatment.
Alarm symptoms: When any symptom is present that is commonly associated with peptic ulcer disease, including unintentional weight loss, recurrent vomiting, dysphagia, haematemesis or melaena, and when peptic ulcer disease is suspected or present, malignancy should be excluded, as treatment with omeprazole may relieve symptoms and delay diagnosis. Consideration should be given to additional investigation if symptoms remain under adequate treatment.
Concomitant use of CYP2C19 inhibitors: When starting or ending treatment with omeprazole, the potential for interactions with drugs metabolised through CYP2C19 should be considered. An interaction is observed between clopidogrel and omeprazole (see section 4.5). The clinical relevance of this interaction is uncertain. As a precaution, concomitant use of omeprazole and clopidogrel should be discouraged. Acute hypomagnesaemia has been reported rarely with proton pump inhibitor (PPI) therapy. The omeprazole has of the potential to interact with other drugs; information should be considered. Omeprazole is extensively metabolised by the cytochrome P450 system (CYP). Omeprazole has been given concomitantly with diazepam, citalopram, phenytoin, warfarin (and other antivitamin K antagonists), cilostazol, cyclosporin, disulfiram, digoxin, methotrexate, tacrolimus, fluvoxamine, clarithromycin, voriconazole and other substances known to be metabolised by CYP. For omeprazole, clarithromycin, voriconazole and other substances known to be metabolised by CYP, increased serum concentrations and prolonged elimination have been observed. Dose adjustment should be considered if clinically significant adverse reactions are observed. Concomitant use of omeprazole (40 mg daily) and digoxin in healthy subjects increased the bioavailability of digoxin by 10%. Digoxin toxicity has been rarely reported. However caution should be exercised when omeprazole is given at high dose in elderly patients. Therapeutic drug monitoring of digoxin should then be reinforced during omeprazole treatment and for a week after stopping omeprazole treatment.
Concomitant use of omeprazole and St John's wort or rifampicin: Concomitant use of omeprazole and St John's wort or rifampicin may lead to decreased omeprazole plasma levels. Omeprazole should be administered with caution.
Clopidogrel: Results from studies in healthy subjects have shown a pharmacokinetic/pharmacodynamic (PK/PD) interaction between clopidogrel (300 mg loading dose/75 mg daily maintenance dose) and omeprazole (80 mg once daily), leading to a decreased exposure to the active metabolite of clopidogrel by an average of 46% and a decreased maximum inhibition of ADP induced platelet aggregation by an average of 16%. Inconsistent data on the clinical implications on a TIA/MI reduction of omeprazole in terms of major cardiovascular events have been reported but no indication demonstrated and clinical studies. As a precaution, concomitant use of omeprazole should be discouraged.
Other information: Omeprazole has been shown to have interactions with medicinal products whose absorption of their effect may be dependent on gastric pH. Like other acid suppressive therapy, absorption of ketoconazole, itraconazole and iron salts may be decreased during treatment with omeprazole and the systemic exposure to these substances increased. Complex of such drugs as it nutrients and other vitamin B antagonists, cilostazol, diazepam and phenytoin.
Interaction with laboratory tests: Increased CgA levels may interfere with investigations for neuroendocrine tumours. Omeprazole increases serum chromogranin A (CgA) level, which may impair the detection of neuroendocrine tumours. Temporarily stopping omeprazole treatment at least 14 days before assessment of CgA levels should allow CgA levels to return to reference ranges.
Prescribers following alteration of plasma concentration is recommended during the first two weeks after initiating omeprazole treatment and if a prothrombin time is measured.
Unknown mechanism
4.5 Interaction with other medicinal products and other forms of interaction
Effects of omeprazole on the pharmacokinetics of other substances:
Other substances with pH dependent absorption
Omeprazole, by reducing intragastric acidity during treatment, may either increase or decrease the absorption of active substances with a gastric pH dependent absorption.
Treatment concomitant: The plasma levels of atazanavir are decreased when atazanavir is administered concomitantly with omeprazole.
Concomitant administration of omeprazole with nelfinavir is contraindicated (see section 4.3). Concomitant administration of omeprazole 20 mg once daily and nelfinavir 1250 mg twice daily resulted in a 75% decrease of the atazanavir exposure (increasing the atazanavir dose to 400 mg did not compensate for the impact of omeprazole on atazanavir exposure). The co-administration of omeprazole 20 mg once daily with atazanavir 300 mg/ritonavir 100 mg to healthy volunteers resulted in a decrease of approximately 30% in the atazanavir exposure. 150 mg once daily.
Digoxin: Concomitant treatment with omeprazole (20 mg daily) and digoxin in healthy subjects increased the bioavailability of digoxin by 10%. Digoxin toxicity has been rarely reported. However caution should be exercised when omeprazole is given at high dose in elderly patients. Therapeutic drug monitoring of digoxin should then be reinforced during omeprazole treatment and for a week after stopping omeprazole treatment.
Clopidogrel: Results from studies in healthy subjects have shown a pharma-dynamic/pharmacokinetic (PD/PK) interaction between clopidogrel (300 mg loading dose/75 mg daily maintenance dose) and omeprazole (80 mg) a decreased exposure to the active metabolite of clopidogrel by an average of 46% and a decreased maximum inhibition of ADP induced platelet aggregation by an average of 16%. Inconsistent data on the clinical implications on a TIA/MI reduction of omeprazole in terms of major cardiovascular events have been reported but no indication demonstrated and clinical studies. As a precaution, concomitant use of omeprazole should be discouraged.
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Hyposec® contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.
Hyposec® contains sodium benzoate and sodium. This medicinal product contains less than 1 mmol sodium (23 mg) per capsule, essentially 'sodium-free'. Sodium benzoate may increase jaundice (yellowing of skin and eyes) in newborn babies (up to 4 weeks of age). Do not take this medicine if your baby is over 4 weeks old and is hospitalised, particularly if they are receiving other medicines.
4.6 Interaction with other medicinal products and other forms of interaction
Effects of omeprazole on the pharmacokinetics of other substances:
Other substances with pH dependent absorption
Omeprazole, by reducing intragastric acidity during treatment, may either increase or decrease the absorption of active substances with a gastric pH dependent absorption.
Treatment concomitant: The plasma levels of atazanavir are decreased when atazanavir is administered concomitantly with omeprazole.
Concomitant administration of omeprazole with nelfinavir is contraindicated (see section 4.3). Concomitant administration of omeprazole 20 mg once daily and nelfinavir 1250 mg twice daily resulted in a 75% decrease of the atazanavir exposure (increasing the atazanavir dose to 400 mg did not compensate for the impact of omeprazole on atazanavir exposure). The co-administration of omeprazole 20 mg once daily with atazanavir 300 mg/ritonavir 100 mg to healthy volunteers resulted in a decrease of approximately 30% in the atazanavir exposure. 150 mg once daily.
Digoxin: Concomitant treatment with omeprazole (20 mg daily) and digoxin in healthy subjects increased the bioavailability of digoxin by 10%. Digoxin toxicity has been rarely reported. However caution should be exercised when omeprazole is given at high dose in elderly patients. Therapeutic drug monitoring of digoxin should then be reinforced during omeprazole treatment and for a week after stopping omeprazole treatment.
Clopidogrel: Results from studies in healthy subjects have shown a pharma-dynamic/pharmacokinetic (PD/PK) interaction between clopidogrel (300 mg loading dose/75 mg daily maintenance dose) and omeprazole (80 mg) a decreased exposure to the active metabolite of clopidogrel by an average of 46% and a decreased maximum inhibition of ADP induced platelet aggregation by an average of 16%. Inconsistent data on the clinical implications on a TIA/MI reduction of omeprazole in terms of major cardiovascular events have been reported but no indication demonstrated and clinical studies. As a precaution, concomitant use of omeprazole should be discouraged.
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Interaction with laboratory tests: Increased CgA levels may interfere with investigations for neuroendocrine tumours. Omeprazole increases serum chromogranin A (CgA) level, which may impair the detection of neuroendocrine tumours. Temporarily stopping omeprazole treatment at least 14 days before assessment of CgA levels should allow CgA levels to return to reference ranges.
Prescribers following alteration of plasma concentration is recommended during the first two weeks after initiating omeprazole treatment and if a prothrombin time is measured.
Unknown mechanism
4.7 Effects on ability to drive and use machines
Two clinical trials have demonstrated that omeprazole 20 mg has no influence on the ability to drive and use machines. In addition, undesirable effects such as dizziness and visual disturbances (see section 4.8) have been reported. Patients should be advised in this respect.
4.8 Undesirable effects
The following adverse drug reactions have been identified or suspected in the clinical trial programme for omeprazole and post-marketing. None was found to be dose related. Adverse reactions listed below are classified according to frequency and System Organ Class (SOC). Frequency categories are defined according to the following convention: very common (≥ 1/10); common (≥ 1/100 to < 1/10); uncommon (≥ 1/1,000 to < 1/100); rare (≥ 1/10,000 to < 1/1,000); very rare (< 1/10,000), not known (cannot be estimated from the available data).

System organ class	Adverse drug reaction
Blood and lymphatic system disorders	Leukopenia, thrombocytopenia
Immune system disorders	Hypersensitivity reactions, e.g. fever, angioedema and anaphylactic reaction/shock
Metabolism and nutrition disorders	Peripheral oedema
Psychiatric disorders	Insomnia, agitation, confusion, depression
Nervous system disorders	Headache, dizziness, paraesthesia, somnolence and vertigo transient on treatment
Eye disorders	Visual disturbance, blurred vision, eye pain
Gastrointestinal disorders	Abdominal pain, constipation, diarrhoea, flatulence and nausea/vomiting
Hepatobiliary disorders	Increased liver enzymes
Skin and subcutaneous tissue disorders	Dermatitis, pruritus, rash, urticaria, alopecia, photosensitivity, mild, petechiae, purpura
Musculoskeletal system disorders	Arthralgia, myalgia, muscular weakness
Renal and urinary disorders	Interstitial nephritis, urinary tract infection, sometimes with fever
Reproductive system and breast disorders	Gynaecomastia, impotence
General disorders	Malaise, sweating

Paediatric population
Omeprazole 20 mg has been assessed in a total of 106 children aged 2 to 16 years with acid-related disease. There are limited long term safety data from 46 children who received maintenance therapy. of omeprazole during a clinical study but were receive omeprazole for up to 781 days. The adverse event profile was generally the same as in adults in short or and in long-term treatment. There are no long-term data of omeprazole treatment in puberty and growth.
4.9 Overdose
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Egyptian pharmacovigilance Centre
4.9 Overdose
There is limited information available on the effects of overdose of omeprazole in humans. In the literature, up to 410 mg has been described and single doses of 80 mg have been studied and 360 mg omeprazole (18 times the usual recommended clinical dose). Nausea, vomiting, dizziness, abdominal pain, diarrhoea and headache have been reported. Few qualitis, depression and confusion have been described in single cases. The symptoms described have been transient, and no serious outcome has been reported. No rate of elimination was unchanged (first order kinetics) with increased dosage, resulting in increased plasma half-life.
5. Pharmacological properties
5.1 Pharmacodynamic properties
Pharmacotherapeutic group: Agent for acid-related disorders; proton pump inhibitors.
Mechanism of action: Omeprazole, a racemic mixture of its enantiomers gastric acid secretion through a highly targeted mechanism of action. It is a specific inhibitor of the acid pump in the parietal cell. It is rapidly acting and provides control through reversible inhibition of gastric acid secretion with once daily dosing.
Pharmacodynamic effects
Omeprazole is a weak base and is concentrated and converted to the active form in the highly acidic environment of the intracellular canalicular of the parietal cell where it inhibits the enzyme H+, K+ - ATase - the acid pump. This effect on the final step of the gastric acid formation process is dose dependent and provides high effective inhibition of both basal and stimulated acid secretion irrespective of the stimulus.
Pharmacodynamic effects
All pharmacodynamic effects observed can be explained by the effects of omeprazole on acid secretion.
Omeprazole 20 mg once daily provides effective control of nocturnal acid breakthrough, irrespective of duration of daytime and nighttime gastric acid secretion with maximum effect being achieved within 5 days of treatment. With omeprazole 20 mg, a mean decrease of at least 80% in 24-hour intragastric acidity is first observed within one hour after dosing. Mean decreases with omeprazole 20 mg maximum at 24 hours of 92% ± 1 mean time of 3.5 hours of the 24-hour period is in duodenal ulcer patients.
As a consequence of reduced acid secretion and intragastric acidity, omeprazole also dependently reduces concentration and of exposure of the acidsensitive to patients with gastro-oesophageal reflux disease. The inhibition of acid secretion is related to the area under the plasma concentration-time curve (AUC) of omeprazole rather than to the plasma concentration at any one point in time.
Effects on H. pylori: H. pylori is associated with active ulcer disease, including duodenal and gastric ulcer disease. H. pylori is a major factor in the development of gastritis in the early years and an important factor in the development of peptic ulcer disease. Eradication of H. pylori with antibiotic therapy is effective in both the short and long term in healing ulcers and in the long term prevention of relapse of ulcer disease.
Omeprazole has been tested and found to be free of clinically significant interactions with other drugs given concomitantly. The drugs tested in pharmacokinetic interaction studies with omeprazole were warfarin, phenytoin, diazepam, naproxen, indomethacin, metoprolol, propranolol, antacids, and digoxin. The omeprazole pharmacokinetic profile was not affected by concomitant administration of these drugs.
Omeprazole has been shown to have interactions with medicinal products whose absorption of their effect may be dependent on gastric pH. Like other acid suppressive therapy, absorption of ketoconazole, itraconazole and iron salts may be decreased during treatment with omeprazole and the systemic exposure to these substances increased. Complex of such drugs as it nutrients and other vitamin B antagonists, cilostazol, diazepam and phenytoin.
Paediatric population
The safety and efficacy have been established in 76 patients of age 1 month to 16 years of age with reflux oesophagitis, omeprazole at doses of 0.7 to 1.4 mg/kg regimens) oesophagitis level to 95% of the cases and significantly reduced reflux symptoms. In a single-blind study, children aged 0–24 months with clinically diagnosed gastro-oesophageal reflux disease were treated with 0.5 mg omeprazole/kg suspension twice daily. The frequency of vomiting/regurgitation episodes decreased by 50% after 4 weeks of treatment irrespective of the aetiology.
Eradication of H. pylori in children: A randomised, double blind, placebo controlled study conducted that omeprazole in combination with two antibiotics (amoxicillin and clarithromycin) was safe and effective in the treatment of H. pylori infection in children. Additionally, double blind, placebo controlled study concluded that omeprazole in combination with two antibiotics (amoxicillin and clarithromycin) was safe and effective in the treatment of H. pylori infection in children aged 5 to 17 years old and above with gastritis. H. pylori positive duodenal ulcer disease (DUD)