2015 legislation regarding driving whilst taking certain drugs, may also apply to selegiline, see *Drugs and driving* under Guidance on prescribing p. 1.

● **MEDICINAL FORMS** There can be variation in the licensing of different medicines containing the same drug. Forms available from special-order manufacturers include: oral solution

Tablet

▸ **Eldepryl** (Orion Pharma (UK) Ltd)

Selegiline hydrochloride 5 mg Eldepryl 5mg tablets | 100 tablet PoM £16.52 DT = £16.52

Selegiline hydrochloride 10 mg Eldepryl 10mg tablets | 100 tablet PoM £32.23 DT = £32.23

Oral lyophilisate

EXCIPIENTS: May contain Aspartame

▸ **Zelapar** (Teva UK Ltd)

Selegiline hydrochloride 1.25 mg Zelapar 1.25mg oral lyophilisates sugar-free | 30 tablet PoM £43.16 DT = £43.16

5 Nausea and labyrinth disorders

Nausea and labyrinth disorders

19-Feb-2020

Drug treatment

Antiemetics should be prescribed only when the cause of vomiting is known because otherwise they may delay diagnosis, particularly in children. Antiemetics are unnecessary and sometimes harmful when the cause can be treated, such as in diabetic ketoacidosis, or in digoxin p. 116 or antiepileptic overdose.

If antiemetic drug treatment is indicated, the drug is chosen according to the aetiology of vomiting.

Antihistamines are effective against nausea and vomiting resulting from many underlying conditions. There is no evidence that any one antihistamine is superior to another but their duration of action and incidence of adverse effects (drowsiness and antimuscarinic effects) differ.

The **phenothiazines** are dopamine antagonists and act centrally by blocking the chemoreceptor trigger zone. They are of considerable value for the prophylaxis and treatment of nausea and vomiting associated with diffuse neoplastic disease, radiation sickness, and the emesis caused by drugs such as opioids, general anaesthetics, and cytotoxics. Prochlorperazine p. 407, perphenazine, and trifluoperazine p. 408 are less sedating than chlorpromazine hydrochloride p. 402; severe dystonic reactions sometimes occur with phenothiazines, especially in children. Some phenothiazines are available as rectal suppositories, which can be useful in patients with persistent vomiting or with severe nausea; prochlorperazine can also be administered as a buccal tablet which is placed between the upper lip and the gum.

Other antipsychotic drugs including haloperidol p. 404 and levomepromazine p. 460 are used for the relief of nausea and vomiting in terminal illness.

Metoclopramide hydrochloride p. 452 is an effective antiemetic and its activity closely resembles that of the phenothiazines. Metoclopramide hydrochloride also acts directly on the gastro-intestinal tract and it may be superior to the phenothiazines for emesis associated with gastroduodenal, hepatic, and biliary disease.

Domperidone p. 451 acts at the chemoreceptor trigger zone. It has the advantage over metoclopramide hydrochloride and the phenothiazines of being less likely to cause central effects such as sedation and dystonic reactions because it does not readily cross the blood-brain barrier. In Parkinson's disease, domperidone [unlicensed in those weighing less than 35 kg] can be used to treat nausea caused by dopaminergic drugs. The MHRA and CHM have released important safety information and restrictions regarding the use of domperidone for nausea and vomiting in those weighing less than 35 kg, and a reminder of contra-indications. For further information, see *Important safety information* for domperidone.

Granisetron p. 454 and ondansetron p. 455 are of value in the management of nausea and vomiting in patients receiving cytotoxics and in postoperative nausea and vomiting. Palonosetron p. 456 is licensed for prevention of nausea and vomiting associated with moderately or highly emetogenic cytotoxic chemotherapy. Palonosetron is also available in combination with netupitant, a neurokinin 1-receptor antagonist, for the prevention of acute and delayed nausea and vomiting associated with moderately emetogenic chemotherapy and highly emetogenic cisplatin-based chemotherapy.

Dexamethasone p. 712 has antiemetic effects and it is used in vomiting associated with cancer chemotherapy. It can be used alone or with metoclopramide hydrochloride, prochlorperazine, lorazepam p. 355, or a $5HT_3$-receptor antagonist.

Aprepitant p. 453, fosaprepitant p. 453, and rolapitant p. 454 are neurokinin 1-receptor antagonists. Aprepitant is licensed for the prevention of nausea and vomiting associated with highly and moderately emetogenic chemotherapy; fosaprepitant is licensed for the prevention of acute and delayed nausea and vomiting associated with highly emetogenic cisplatin-based chemotherapy and the prevention of nausea and vomiting associated with moderately emetogenic chemotherapy; rolapitant is licensed for the prevention of delayed nausea and vomiting associated with highly and moderately emetogenic chemotherapy. These drugs are given with dexamethasone and a $5HT_3$-receptor antagonist. For further information on the prevention of nausea and vomiting caused by chemotherapy, see Cytotoxic drugs p. 938.

Nabilone p. 450 is a synthetic cannabinoid. EvGr It can be considered as an add-on treatment for chemotherapy-induced nausea and vomiting unresponsive to optimised conventional antiemetics. A

Vomiting during pregnancy

Nausea in the first trimester of pregnancy is generally mild and does not require drug therapy. On rare occasions if vomiting is severe, short-term treatment with an antihistamine, such as **promethazine**, may be required. Prochlorperazine or metoclopramide hydrochloride are alternatives. If symptoms do not settle in 24 to 48 hours then specialist opinion should be sought. Hyperemesis gravidarum is a more serious condition, which requires regular antiemetic therapy, intravenous fluid and electrolyte replacement and sometimes nutritional support. Supplementation with thiamine p. 1141 must be considered in order to reduce the risk of Wernicke's encephalopathy.

Postoperative nausea and vomiting

The incidence of postoperative nausea and vomiting depends on many factors including the anaesthetic used, and the type and duration of surgery. Other risk factors include female sex, non-smokers, a history of postoperative nausea and vomiting or motion sickness, and intraoperative and postoperative use of opioids. Therapy to prevent postoperative nausea and vomiting should be based on the assessed risk of postoperative nausea and vomiting in each patient. Drugs used include **$5HT_3$-receptor antagonists**, droperidol p. 460, dexamethasone, some **phenothiazines** (e.g. prochlorperazine), and **antihistamines** (e.g. cyclizine p. 449). A combination of two or more antiemetic drugs that have different mechanisms of action is often indicated in those at high risk of postoperative nausea and vomiting or where postoperative vomiting presents a particular danger