For the use only of a Registered Medical Practitioner or a Hospital or Laboratory

# Emeset E

**Composition**

**Emeset E-4** Tablets
Each film-coated tablet contains
Ondansetron Hydrochloride USP
equivalent to Ondansetron ..... 4 mg.

**Emeset E-8** Tablets
Each film-coated tablet contains
Ondansetron Hydrochloride USP
equivalent to Ondansetron ..... 8 mg.

**Emeset E** 2ml Injection
Each film-coated tablet contains
Ondansetron Hydrochloride USP
equivalent to Ondansetron ..... 2 mg.
Water for Injection BP ..... q.s.

**Emeset E** 4ml Injection
Each film-coated tablet contains
Ondansetron Hydrochloride USP
equivalent to Ondansetron ..... 2 mg.
Water for Injection BP ..... q.s.

**Description**

Ondansetron is a potent, highly selective 5-$HT_3$ receptor antagonist. Its precise mode of action in the control of nausea and vomiting is not known. Chemotherapeutic agents and radiotherapy may cause release of 5-HT in the small intestine initiating a vomiting reflex by activating vagal afferents via 5-$HT_3$ receptors. Ondansetron blocks the initiation of this reflex. Activation of vagal afferents may also cause a release of 5-HT in the area postrema, located on the floor of the fourth ventricle, and this may also promote emesis through a central mechanism. Thus, the effect of ondansetron in the management of nausea and vomiting induced by cytotoxic chemotherapy and radiotherapy is probably due to antagonism of 5-$HT_3$ receptors on neurons located both in the peripheral and central nervous system.

The mechanism of action in post-operative nausea and vomiting is not known but there may be common pathways with cytotoxic-induced nausea and vomiting.

**Indications**

**Emeset E** is indicated for the management of nausea and vomiting induced by cytotoxic chemotherapy and radiotherapy, and for the prevention and treatment of post-operative nausea and vomiting (PONV).

**Dosage and Administration**

***Cancer chemotherapy and radiotherapy***

*Adults*

| ***Highly Emetogenic Chemotherapy*** | |
|---|---|
| **Day 1** | **Days 2-5** |
| A single dose of 8 mg by slow intravenous injection immediately before chemotherapy<br>OR | 8 mg orally twice daily for up to 5 days |
| A dose of 8 mg by slow intravenous injection immediately before chemotherapy followed by two further intravenous doses of 8 mg two to four hours apart, or by a constant infusion of 1 mg/ hour for up to 24 hours<br>OR | 8 mg orally twice daily for up to 5 days |
| A single dose of 32 mg diluted in 50-100 ml of saline or other compatible infusion fluid and infused over a period of not less than 15 minutes immediately before chemotherapy | 8 mg orally twice daily for up to five days |
| ***Emetogenic Chemotherapy/Radiotherapy*** | |
| **Day 1** | **Days 2-5** |
| A single dose of 8 mg administered as a slow intravenous injection immediately before chemotherapy/ radiotherapy<br>OR | 8 mg orally twice daily for up to 5 days |
| 8 mg orally, 1-2 hours before chemotherapy/radiotherapy followed by 8 mg orally 12 hourly after the first dose | 8 mg orally twice daily for up to 5 days |

*Children*

| ***Emetogenic Chemotherapy/Radiotherapy*** | |
|---|---|
| **Day 1** | **Days 2-5** |
| A single intravenous dose of 5 mg/m2 immediately before chemotherapy followed by 4 mg orally 12 hours later | 4 mg orally twice daily for up to 5 days |

* In both, adults and children, in highly emetogenic chemotherapy, efficacy of ondansetron over the first 24 hours may be enhanced by the addition of a single intravenous dose of 20 mg dexamethasone sodium phosphate prior to chemotherapy.

*Elderly and in impaired renal function*

No alteration of dosage, dose frequency or route of administration is required in patients over 65 years or with renal impairment.

*In impaired hepatic function*
In patients with moderate or severe hepatic impairment, a total daily dosage of 8 mg should not be exceeded.

*Post-operative Nausea and Vomiting (PONV)*

| Indications | Dosage |
|---|---|
| For the prevention of post-operative nausea and vomiting | 8 mg given orally one hour prior to anaesthesia followed by two further doses of 8 mg at eight-hourly intervals<br>OR<br>A single dose of undiluted 4 mg given by slow intravenous injection at induction of anaesthesia |
| For the treatment of established post-operative nausea and vomiting | A single dose of undiluted 4 mg given by slow intravenous injection |

**Paediatric use**
There is no experience in the use of ondansetron in the prevention and treatment of post-operative nausea and vomiting in children.

**In the elderly**
There is limited experience in the use of ondansetron in the prevention and treatment of post-operative nausea and vomiting in the elderly.

**In impaired renal function**
No alteration of daily dosage or frequency of dosing, or route of administration are required.

**In impaired hepatic function**
Clearance of ondansetron is significantly reduced and serum half-life significantly prolonged in subjects with moderate or severe impairment of hepatic function. In such patients a total daily dose of 8 mg should not be exceeded.

**Compatability with intravenous fluids**
In keeping with good pharmaceutical practice, intravenous solutions should be prepared at the time of infusion with the following recommended infusion solutions:
- Sodium chloride intravenous infusion IP 0.9% w/v
- Dextrose intravenous infusion IP 5% w/v
- Mannitol intravenous infusion IP 10% w/v
- Ringer's intravenous infusion
- Potassium chloride 0.3% w/v and glucose 5% w/v

**Contraindications**
Hypersensitivity to any component of the preparation.

**Warnings and Precautions**
*Drug interactions*
Because ondansetron is metabolised by hepatic cytochrome P-450 drug metabolizing enzymes, inducers or inhibitors of these enzymes may change the clearance and hence the half-life of ondansetron. However, no dosage adjustment is recommended for patients on these drugs.

*Pregnancy*
As with other medications, **Emeset E** should not be used during pregnancy, especially during the first trimester, unless the expected benefit to the patient is thought to outweigh any possible risk to the foetus.

*Nursing Mothers*
Tests have shown that ondansetron is secreted in breast milk. It is therefore recommended that mothers receiving **Emeset E** should not breastfeed their babies.

*Paediatric Use*
See Dosage and Administration

**Side Effects**
Ondansetron is known to increase large bowel transit time and may cause constipation in some patients. The following side effects can occur: headache, a sensation of flushing or warmth in the head and epigastrium, and occasional transient asymptomatic increases in aminotransferase and possible extra pyramidal actions. There have been rare reports of immediate hypersensitivity reactions including anaphylaxis. Rare cases of transient visual disturbances (e.g. blurred vision) have been reported during rapid intravenous administration of ondansetron.

**Overdosage**
Little at present is known about overdosage with ondansetron. However, two patients who received doses of 84 mg and 145 mg intravenously reported only mild side effects and required no active therapy. In cases of suspected overdosage symptomatic and supportive therapy should be given as appropriate.

**Pharmaceutical Precautions**
**Emeset E** Injection should be protected from light. No special storage conditions are necessary. **Emeset E** Injection should not be administered in the same syringe or infusion as any other medication. **Emeset E** Injection ampoules should not be autoclaved.

**Storage:** Store below 30°C.

**Presentation:**
**Emeset E-4** Blister of 10 tablets
**Emeset E-8** Blister of 10 tablets
**Emeset E** 2ml Injection Carton containing 5 ampoules of 2 ml each
**Emeset E** 4ml Injection Carton containing 5 ampoules of 4 ml each

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