

**Class:** Proton Pump Inhibitors  
**Drug /Trade Names:** Esomeprazole (Nexium®) Lansoprazole (Prevacid®)  
Omeprazole (Prilosec®) Pantoprazole (Protonix® )

**REVISED:** November 1, 2018

**Class:**

- Proton pump inhibitor

**Mechanism of Action:**

- Diminishes daily production of acid.
- Causes an intracellular potassium shift

**Indications:**

- Acid Reflux
- GERD
- GI ulcers and bleeding
- Prevention of stress related mucosal injury

**Contraindications:**

- Hypersensitivity

**Precautions:**

- Pregnancy Class B (presumed safe based on animal studies)
- Liver disease

**Dosage:**

Doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.

- Omeprazole (Prilosec®)
  - IV/IO: 80 mg Bolus prior to infusion, administered slowly (over 2 minutes).
  - IV/IO Infusion: 8 mg/hour
- Pantoprazole (Protonix® )
  - IV/IO: 80 mg Bolus prior to infusion, administered slowly (over 2 minutes).
  - IV/IO Infusion: 8 mg/hour
- Esomeprazole (Nexium®)
  - IV/IO Infusion: 20-40 mg over 30 minutes
- Lansoprazole (Prevacid®)
  - IV/IO: 60 mg Bolus prior to infusion, administered slowly (over 2 minutes).
  - IV/IO Infusion: 6 mg/hour

**Onset:**

- IV/IO: Immediate

**Duration:**

- Based on infusion duration

# IFT

REFERENCE ONLY

This document is for **reference only**. Please refer to Physician Order's for specific indications, dosages, and applications

## IFT DRUG: Proton Pump Inhibitors

### Side Effects:

- Rash
- Jaundice
- GI upset
- CNS Symptoms in elderly

### Interactions:

- Reduced clearance of Benzodiazepines
- Reduced bio availability of drugs dependent on gastric PH for absorption
- Interacts with warfarin and cyclosporine
- Incompatible with many IV medications in the IV line.

### PEARLS:

**PPI Infusions have many incompatibilities in the same IV line with other medications. When in doubt, confirm with transferring hospital or use another line.**

- PPIs may be administered orally, as an IV/IO bolus or as an infusion. In EMS, PPIs are often given for prevention of the physiologic stress-related gastric mucosal injury often seen in the critically ill.
- IV PPIs should be administered through a dedicated IV line, and flushed with compatible solutions pre- and post-administration.
  - Lansoprazole (Prevacid®) requires a filter set for administration.
- Incompatible with many IV medications in the IV line. Flush well or use different line.
  - Compatible with:

▪ Aminophylline	▪ Ketoralac
▪ Ampicillin	▪ Penicillin
▪ Cefazolin	▪ Potassium
▪ Dopamine	▪ Procainamide
▪ Furosimide	▪ vasopressin
  - Specifically **not compatible** with:

▪ Amiodarone	▪ Mannitol
▪ Atropine	▪ Naloxone
▪ Dexamethasone	▪ Nor-epinepherine
▪ Diazepam	▪ Propofol
▪ Digoxin	▪ Vecuronium
▪ Esmolol	▪ Verapamil
▪ Lidocaine	
  - **When in doubt, check with transferring hospital.**

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