

BACKGROUND

In critical illness gastric motility is often disturbed, often this may result in severe constipation in some patients, which is refractory to the usual drug treatments. Neostigmine is an anticholinesterase drug that can be used in selected patients for severe constipation (van der Spoel, et al, 2001). Neostigmine acts by inhibiting acetylcholinesterase, thus increasing the concentration of acetylcholine in the synaptic space. Its effect is to increase parasympathetic activity, which enhances motor activity of the digestive and urinary tracts and increases the secretions of the exocrine glands (sweat, lacrimal, bronchial, gastric, intestinal and pancreatic acinar) and there is an increase in respiratory secretions and bronchoconstriction. Cardiovascularly it provokes a decrease in heart rate, atrial contractility and to a lesser degree, in ventricular contractility, causing hypotension at high doses. Neostigmine is used to reverse neuromuscular blockade provoked by non-depolarizing agents, to treat myasthenia gravis, and to prevent post-operative bladder distention and urinary retention

INDICATIONS

Severe constipation in patients with normal or diminished peristalsis. Neostigmine is a 2nd line agent, and should not be used without a trial of conventional techniques e.g. lactulose, senna, suppositories, enemas etc.

CAUTIONS & CONTRAINDICATIONS

Contraindications

- Intestinal or urinary obstruction
- Signs or symptoms of an acute abdomen, mechanical ileus or pseudo obstruction, diagnosed by physical or radiological examination.
- Gastrointestinal surgery within 10 days

Cautions

- Asthma (extreme caution)
- Bradycardia
- Arrhythmia
- Recent myocardial infarction
- Epilepsy
- Hypotension

ADVERSE EFFECTS

Increased sweating, excess salivation, abdominal cramping, nausea & vomiting, bronchospasm, bradycardia & hypotension

****ALL PATIENTS HAVE CONTINUOUS ECG MONITORING, DISCONTINUE IF HEART RATE DROPS BELOW 50BPM ****

DOSAGE AND ADMINISTRATION

10mg neostigmine made up to 50 ml with 0.9% NaCl. Delivered at 2ml per hour for 48 hours (maximum)