

# Metoclopramide

## Classification

Antiemetic, dopamine antagonist

## Indications

■ CCP: Nausea and vomiting

## Contraindications

- Hypersensitivity to metoclopramide
- Bowel perforation
- Seizure disorders
- Extrapyrimal reactions
- Monoamine oxidase inhibitor therapy within the past 14 days

## Adult dosages

■ CCP: Nausea and vomiting

- 0.1 mg/kg IV/IO/IM to a single maximum dose of 10 mg
- May repeat every 6 hours as required. Total daily dose limit 0.5 mg/kg.

## Pediatric Considerations And Dosing

Caution: Limited data available. Consultation with CiniCall is required.

Not authorized for infants < 1 year of age.

## Mechanism Of Action

Blocks dopamine receptors in the chemoreceptor trigger zone of the central nervous system. Enhances up GI tract motility and accelerates gastric emptying.

## Pharmacokinetics

Following intravenous administration:

- Onset: 1-3 minutes
- Duration: 1-2 hours
- Half-life: 5-6 hours
- Metabolism: hepatic
- Excretion: urine

## Adverse Effects

>10%:

Gastrointestinal: Dysgeusia (nasal spray: 15%)

Nervous system: Drowsiness (~10% to 70%; dose related), dystonic reaction ( $\leq 25\%$ ; dose and age related)

1% to 10%: Nervous system: Fatigue (~10%; dose related), lassitude (~10%; dose related), restlessness (~10%; dose related)

Frequency not always defined:

Cardiovascular: Atrioventricular block, bradycardia, cardiac failure, flushing (following high IV doses), hypertension, hypotension, supraventricular tachycardia

Dermatologic: Skin rash, urticaria

Endocrine & metabolic: Amenorrhea, endocrine disease (elevation of aldosterone), fluid retention, galactorrhea not associated with childbirth, gynecomastia, hyperprolactinemia, porphyria

Gastrointestinal: Change in bowel habits, diarrhea, nausea

Genitourinary: Urinary frequency, urinary incontinence

Hematologic & oncologic: Agranulocytosis, leukopenia, methemoglobinemia, neutropenia, sulfhemoglobinemia

Hypersensitivity: Angioedema, hypersensitivity reaction, tongue edema

Nervous system: Akathisia, confusion, depression, dizziness, drug-induced extrapyramidal reaction, hallucination, headache, insomnia, neuroleptic malignant syndrome, parkinsonism, seizure, suicidal ideation, tardive dyskinesia (total cumulative dose and duration of treatment related)

Neuromuscular & skeletal: Laryngospasm (rare)

Ophthalmic: Visual disturbance

Respiratory: Bronchospasm, laryngeal edema

Source: Metoclopramide. In: Lexicomp Online, UpToDate, Waltham, MA. (Accessed November 20, 2020.)

## Warning And Precautions

May cause CNS depression.

May cause extrapyramidal symptoms, typically acute dystonic reactions. Higher doses increase these risks.

High doses and long term therapy (> 12 weeks) may cause tardive dyskinesia.

May prolong QT interval in some patients (particularly heart failure with renal impairment).

