ProHance® (Gadodiamide) Injection, 279.3 mg/mL

Directions for Use of the Gadodiamide (Gadodiamide) Injection single dose syringe

1) Screw the threaded tip of the plunger rod clockwise into the cartridge plunger and push forward a few millimeters to break the cartridge plunger and syringe barrel.

2) Holding syringe erect, uncap the plastic tip cap from the tip of the syringe and attach either a sterile, disposable needle or tubing with a compatible luer lock using the methods described in the ADDITIONAL INSTRUCTIONS FOR ADMINISTRATION.

3) Hold the syringe erect and push plunger forward until all of the air is evacuated and fluid other than the fluid on the needle or tube is flushed. Follow the steps below to ensure complete delivery of the contrast medium; the injection should follow a normal saline flush.

4) Property of the syringe and any other materials used.

The syringe assembly is a USP 500 single dose syringe supplied by Becton Dickinson.

This product is covered by one or more of the following U.S. patents and foreign counterparts: 5,417,414, 5,434,005, 5,474,756; U.S. Patent No. 5,846,519; and U.S. Patent No. 6,143,274.

This product is a sterile, single use, non-pyrogenic, non-additive system. Good manufacturing practice has been used to produce a product that is free of visible bacterial contaminants. This product is designed for single use. Do not reconstitute or use in combination with any other drugs or solutions. Refrigerate this product at 2°C to 8°C (36°F to 46°F) until use. Upon removal of the product from the refrigerator, allow to reach room temperature for a minimum of 30 minutes prior to use. Stir gently just before use. Protect from light and do not freeze.

For patients with chronic, mild kidney disease (GFR 60-89 mL/min/1.73m²), decrease the dose by 50%. For patients with acute kidney injury, and the degree of renal impairment at the time of administration is 50% of the normal renal function, decrease the dose by 50%.

ADVERSE REACTIONS

The following adverse drug reactions have also been reported:

• Dermatological: Urticaria; Pruritus; Rash; Rash Macular Papular; Urticaria; Hives; Angioedema

• Cardiovascular: Tachycardia; Hypotension; chest discomfort; flushing

• Respiratory: Dyspnea; Cough; wheezing

• Gastrointestinal: Nausea; abdominal pain; vomiting; diarrhea; indigestion

• Neuromuscular & skeletal: muscle cramps

• Hematological: Anemia, leukopenia, thrombocytopenia

• Other: Seizure; Anaphylactoid reactions

Pharmacokinetics

Gadodiamide is eliminated in the urine with 94.4 ± 4.8% (mean ± SD) of the administered dose recovered in the urine within 72 hours of administration. The mean plasma clearance of gadodiamide is 55.6 mL/min/1.73 m² in healthy adult male volunteers and 39.4 mL/min/1.73 m² in healthy adult female volunteers.

The pharmacokinetic data show no alteration in elimination kinetics on passage through the kidneys and that gadodiamide does not accumulate in normal brain or in lesions that have a normal blood-brain barrier, e.g., cysts, mature post-operative scars, etc. However, disruption of the blood-brain barrier (e.g., with anoxia or concussion), or with large doses of gadodiamide, may lead to increased dural enhancement in the absence of a normal blood-brain barrier.

The following adverse drug reactions have also been reported:

• Dermatological: Urticaria; Pruritus; Rash; Rash Macular Papular; Urticaria; Hives; Angioedema

• Cardiovascular: Tachycardia; Hypotension; chest discomfort; flushing

• Respiratory: Dyspnea; Cough; wheezing

• Gastrointestinal: Nausea; abdominal pain; vomiting; diarrhea; indigestion

• Neuromuscular & skeletal: muscle cramps

• Hematological: Anemia, leukopenia, thrombocytopenia

• Other: Seizure; Anaphylactoid reactions

Pharmacokinetics

Gadodiamide is eliminated in the urine with 94.4 ± 4.8% (mean ± SD) of the administered dose recovered in the urine within 72 hours of administration. The mean plasma clearance of gadodiamide is 55.6 mL/min/1.73 m² in healthy adult male volunteers and 39.4 mL/min/1.73 m² in healthy adult female volunteers.

The pharmacokinetic data show no alteration in elimination kinetics on passage through the kidneys and that gadodiamide does not accumulate in normal brain or in lesions that have a normal blood-brain barrier, e.g., cysts, mature post-operative scars, etc. However, disruption of the blood-brain barrier (e.g., with anoxia or concussion), or with large doses of gadodiamide, may lead to increased dural enhancement in the absence of a normal blood-brain barrier.

Gadodiamide does not cross the intact blood-brain barrier and, therefore, does not accumulate in lesions that have a normal blood-brain barrier, e.g., cysts, mature post-operative scars, etc. However, disruption of the blood-brain barrier (e.g., with anoxia or concussion), or with large doses of gadodiamide, may lead to increased dural enhancement in the absence of a normal blood-brain barrier.
**CLINICAL TRIALS**

Clinical trials have been conducted in two clinical trials in a total of 125 adults who were treated with ProHance. The trials compared gadoteridol MRI scans with gadoteridol MRI scans in 125 patients. The clinical trials were conducted at 51 institutions in 20 countries. The results of these clinical trials demonstrated that gadoteridol MRI scans were superior to gadoteridol MRI scans in terms of lesion detection and characterization, as well as functional MRI and other functional imaging. The results of these clinical trials have been published in multiple medical journals.

**INDICATIONS**

ProHance is indicated for use in adult patients (≥18 years of age) to provide increased signal intensity of tissues in T1-weighted MRI images. ProHance is indicated for use in children (≥2 years of age) to provide increased signal intensity of tissues in T1-weighted MRI images. ProHance is indicated for use in adult patients (≥18 years of age) to provide increased signal intensity of tissues in T1-weighted MRI images.

**CONTRAINDICATIONS**

ProHance is contraindicated in patients with known allergy to gadoteridol or any of its excipients. ProHance is contraindicated in patients with known allergy to gadoteridol or any of its excipients. ProHance is contraindicated in patients with known allergy to gadoteridol or any of its excipients.

**WARNINGS**

Gadoteridol (ProHance) has been associated with the development of nephrogenic systemic fibrosis (NSF) in patients with impaired renal function. NSF is a serious and potentially life-threatening condition that can lead to irreversible fibrosis and organ contractures, with lesions appearing at the site of inflammation, with a mean incubation period of 18-26 months. NSF has been reported to occur in patients with a history of renal impairment, with a mean incubation period of 18-26 months.

**PRECAUTIONS**

ProHance should be used with caution in patients with impaired renal function. ProHance should be used with caution in patients with impaired renal function. ProHance should be used with caution in patients with impaired renal function.

**DOSAGE AND ADMINISTRATION**

ProHance is administered as a rapid intravenous infusion. The recommended dose of ProHance is 0.1 mmol/kg (0.2 mL/kg) administered as a rapid intravenous infusion. The recommended dose of ProHance is 0.1 mmol/kg (0.2 mL/kg) administered as a rapid intravenous infusion.

**ADVERSE REACTIONS**

The most common adverse reactions observed in clinical trials involving 1251 patients (532 males and 719 females) were injection site reactions, including pain, erythema, swelling, and induration. The injection site reactions were reported in 29% of patients. The injection site reactions were reported in 29% of patients. The injection site reactions were reported in 29% of patients.

**DISCUSSION**

ProHance is a contrast agent used in magnetic resonance imaging (MRI). ProHance is a contrast agent used in magnetic resonance imaging (MRI). ProHance is a contrast agent used in magnetic resonance imaging (MRI).

**REFERENCES**


