

MORPHINE SULFATE INJECTION, USP

This leaflet should therefore be read in conjunction with the information contained in the Summary of Product Characteristics (SmPC) for the product in the European Union.

5.1 Addiction, Abuse, and Misuse

WARNING: ADDICTION, ABUSE, AND MISUSE; LIFE-THREATENING RESPIRATORY DEPRESSION; NEONATAL WITHDRAWAL

5.2 Pregnancy

Morphine Sulfate Injection exposes patients and other users to the risks of opioid addiction, abuse, and misuse, which can lead to severe harm, including death. Individuals at risk for addiction include those with a history of substance use disorder (SUD) or other risk factors (e.g., family or genetic history of SUD). Patients and providers should carefully consider the potential benefits and risks of opioids when deciding whether to initiate treatment with Morphine Sulfate Injection.

Morphine Sulfate Injection is intended for intravenous and intramuscular administration.

2.2 Initial Dosage

The initial IM dose is 10 mg every 4 hours as needed to manage pain (based on a 70 kg adult).

2.3 Titration and Maintenance of Therapy

Monitor patients closely for respiratory depression, especially within the first 24-72 hours of initiating therapy and during dosage adjustments.

8.1 Pregnancy

Morphine Sulfate Injection is given concomitantly with other drugs that depress respiration and can produce respiratory depression, hypotension, and cardiovascular collapse, especially in the patient with impaired liver or renal function.

5.15 Exposure, Hypothermia, Immersion and Shock

Clinical interpretation of the respiratory rate should take into account other factors such as patient age, underlying respiratory disease, and concomitant medications. Respiratory depression may occur as a result of over-sedation or the presence of other CNS depressants, including alcohol, other opioids, sedatives, hypnotics, and general anesthetics.

2.4 Discontinuation of Morphine Sulfate Injection

When discontinuing Morphine Sulfate Injection, reduce the dose slowly and as the patient responds to therapy to minimize withdrawal symptoms. If the patient is physically dependent on opioids, abrupt discontinuation can cause severe withdrawal reactions. If the patient is not physically dependent on opioids, abrupt discontinuation of Morphine Sulfate Injection may cause nausea, vomiting, diarrhea, and sweating.

8.1 Pregnancy

Morphine Sulfate Injection does not relieve the primary disease, but rather acts as an analgesic. If adequate pain control is not achieved, the dosage should be increased until maximum analgesia is achieved.

8.2.1 Control of Pain in the Elderly

Prioritizing pain control in the elderly is important to ensure a comfortable and dignified experience. In the absence of evidence that age affects the risk of adverse reactions, use of Morphine Sulfate Injection for pain management should be individualized for each patient.

5.15 Exposure, Hypothermia, Immersion and Shock

5.12 Increased Risk of Seizures in Patients with Seizure Disorders

Antidepressants, antipsychotics, and anticonvulsant medications can increase the risk of seizures.

5.14 Central Nervous System Toxicity

Other possible adverse reactions include:

- Dizziness
- Headache
- Fatigue
- Tinnitus
- Abnormal vision

2.4 Discontinuation of Morphine Sulfate Injection

5.11 Other Contraindications

5.10 Risks of Use in Patients with Increased Intracranial Pressure, Brain Tumors, Head Injury, or Impaired Consciousness

6.2 Contraindications

Morphine Sulfate Injection should be used with caution in patients with impaired consciousness or coma.

5.15 Exposure, Hypothermia, Immersion and Shock

Severe hypotension including orthostatic hypotension and syncope in patients with impaired liver or renal function may occur as a result of over-sedation or the presence of other CNS depressants, including alcohol, other opioids, sedatives, hypnotics, and general anesthetics.

8.1 Pregnancy

Morphine Sulfate Injection is contraindicated in patients with severe hepatic or renal impairment.

5.15 Exposure, Hypothermia, Immersion and Shock

Tachycardia, which occurs in response to hypoxia, hypercapnia, or pre-existing respiratory depression are at increased risk of decreased respiratory drive. If a patient is intolerable to respiratory depression, hypotension, and cardiovascular collapse caused by the administration of Morphine Sulfate Injection, discontinue the medication immediately.

9.1 Controlled Substance

Morphine Sulfate Injection is a Schedule II controlled substance (see 21 U.S.C. 812(b) (2). (b) (4)).

9.3.3 Deaths Associated with the Misuse, Abuse, and diverted Use of Morphine Sulfate Injection

Morphine Sulfate Injection may be abused and lead to dependence and overdose, which may be fatal.

5.15 Exposure, Hypothermia, Immersion and Shock

5.2 Pregnancy

Morphine Sulfate Injection may increase the risk of postpartum hemorrhage in women with retained placental tissue. Provide adequate medical care for treating severe hemorrhage.

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Morphine Sulfate Injection, for intravenous, intramuscular, and subcutaneous administration. This drug product is a sterile, water-soluble solution of morphine sulfate for injection, with the following inactive ingredients:

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8.4 mg sodium chloride, 2.3 mg of sodium citrate, 0.74 mg of citric acid, 0.111 mg of edetate disodium, 0.053 mg of calcium chloride and water for injection.

Acute overdose with Morphine Sulfate Injection can be manifested by respiratory depression, somnolence, confusion, pinpoint pupils, miosis, decreased blood pressure, and hypotension. In severe cases, death can result from respiratory depression or circulatory collapse.

Treatment of acute morphine overdose should include the following measures:

- 8.7 Renal Impairment

In therapeutic doses, morphine does not usually exert major effects on the cardiovascular system. Morphine potentiates the hypotensive effects of spinal anesthesia and barbiturates. However, in therapeutic concentrations, morphine has produced slight decreases in blood pressure and heart rate in humans and animals.

- 8.6 Adverse Reactions

Morphine can cause a rare but potentially life-threatening condition resulting from concomitant administration with certain anticholinergic drugs. This condition has been reported in patients that have been treated with potent agonist opioids.

- 13 NONCLINICAL TOXICOLOGY

Long-term studies in animals to evaluate the carcinogenic potential of morphine have not been conducted. Available clastogenic and carcinogenic data on morphine in animals are limited.

- 14 CLINICAL PHARMACOLOGY

In the clinical setting, maternal administration of Morphine Sulfate Injection seems to be associated with changes in endocrine function and the risk of adverse effects in the mother and neonate. It is not known whether morphine or its metabolites are excreted in human milk.

- 5.1 Controlled Substance

Holographic authentication is a method of confirming the authenticity of a product through the use of a special label or material that contains a latent image or image that is not visible until activated by a specific process or excitation source.

- 12 CLINICAL PHARMACOLOGY

The pharmacokinetics of morphine are characterized by rapid onset of action, high first-pass metabolism, and a long terminal half-life. Morphine is primarily eliminated in the urine as metabolites, with less than 5% of an oral dose recovered in the feces.

- 11 CLINICAL PHARMACOLOGY

In addition to its analgesic effects, morphine also has a range of pharmacological effects including respiratory depression, sedation, hypotension, and respiratory depression.

- 10 CLINICAL PHARMACOLOGY

The elimination half-life of morphine is approximately 3 to 4 hours, with about 20% of an oral dose excreted in the urine directly and 5% as metabolites. Approximately 80% of an oral dose is metabolized in the liver.