

FENTANYL CITRATE

DRUG CLASSIFICATION	Synthetic Lipophilic Phenylpiperidine Opioid Selective Mu-Type Receptor Agonist Schedule II Controlled Substance Narcotic Analgesic Agent Anesthetic Agent
MECHANISM OF ACTION	Fentanyl mimics the effects of endogenous opiates through selective binding and activation of stereospecific receptors within the CNS. By stimulating the exchange of GTP for GDP on the G-protein complex and subsequently inhibiting adenylate cyclase, Fentanyl inhibits cAMP-mediated calcium influx into the cell, producing hyperpolarization and reduced neuronal excitability. The inhibition action of ascending pain pathways then produces alteration in pain reception, resulting in an overall increased threshold for pain.
CLINICAL INDICATIONS	Moderate-to-Severe Pain Control Post-Intubation or Post-BIAD Airway Management Post-Resuscitation Temperature Management
STANDARD CONTRAINDICATIONS	Hypersensitivity to Fentanyl, Opioids, or Other Relative Components Acute Respiratory Depression or Severe Obstructive Airway Disease (i.e., Asthma, COPD, Hypercapnia, etc.) Concurrent use of a Monoamine Oxidase Inhibitor (MAOI) or recent use of MAOI's within the last 14 days Known or Suspected Condition Associated with Acute Alcoholism or Liver Failure
POTENTIAL ADVERSE EFFECTS	Nausea / Vomiting / Constipation / Dizziness / Headache / CNS Depression / Confusion / Hallucinations / Respiratory Distress / Respiratory Depression / Respiratory Arrest / Peripheral Edema / Vasodilation / Hypotension / Elevated ICP
GENERAL RISKS & PRECAUTION	1) Use extreme caution for patients with known or suspected GI obstruction or condition affecting bowel transit. 2) Use with extreme caution in elderly patients due to geriatric susceptibility to adverse CNS and respiratory depression effects. 3) Use with extreme caution for patients currently taking or have recently taken other CNS depressants such as benzodiazepines, alcohol, etc. 4) Use with extreme caution for patients that present with signs of a head injury or elevated ICP due to the risk for worsened conditions. 5) Use with extreme caution in the presence of known or suspected delirium tremens or convulsive disorders. 6) Use caution for patients with present or past conditions associated with adrenal insufficiency, including Addison disease.
PROTOCOL INDEX	Pain Control (UP-11) Post-Intubation / BIAD Management (AR-8) Chest Pain; Cardiac and STEMI (AC-4)

MEDICATION ADMINISTRATION

ADULT

PEDIATRIC

Moderate to Severe Pain

50 – 100 mcg [IV/IO/IM/IN]; May repeat 50 mcg every 5 minutes.
(Maximum 3 mcg / kg)

Post-Intubation / BIAD Management

50 – 100 mcg [IV/IO/IM/IN]; May repeat 50 mcg every 5 minutes.
(Maximum 3 mcg / kg)

Chest Pain: Cardiac and STEMI

50 – 100 mcg [IV/IO]; May repeat 50 mcg every 20 minutes as needed.
(Maximum 3 mcg /kg)

Moderate to Severe Pain

1 mcg / kg [IV/IO/IM/IN]; May repeat 0.5 mcg / kg every 5 minutes.
(Maximum 2 mcg / kg)

Post-Intubation / BIAD Management

1 mcg / kg [IV/IO/IM/IN]; May repeat 0.5 mcg / kg every 5 minutes.
(Maximum 2 mcg / kg)