

**ELMHURST HOSPITAL
EMERGENCY DEPARTMENT (ADULT)**

IV PUSH MEDS APPROVED FOR ADMINISTRATION BY CREDENTIALLED ED NURSES

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
AMIODARONE Antidysrhythmic	ACLS: 300 mg IV/IO by rapid infusion; if necessary, a supplementary dose of 150 mg IV/IO by rapid infusion may be considered; MAX daily dose 2.2 g	Must be administered using a volumetric infusion pump preferably via a central venous catheter; use an in-line filter	Bradyarrhythmia, Hypotension CHF , Shock, Stevens-Johnson syndrome, photosensitivity, constipation, loss of appetite , nausea, vomiting, , Thrombocytopenia, hepatotoxicity, Immune hypersensitivity reaction, Pulmonary toxicity
ATROPINE SULFATE Antidysrhythmic indicated for Bradyarrhythmia and cardiac arrest.	a) CARDIAC ARREST- 1 mg IV every 3 to 5 min to MAX total dose of 3 mg b) BRADYARRHYTMIA, acute symptomatic: 0.5 mg IV every 3 to 5 min to MAX total dose of 3 mg	(infusion) use PVC tubing for infusion when infused with recommended concentration and rate; dilute with D5W in glass or polyolefin bottles if infusion duration exceeds 2 hours	Tachyarrhythmia, constipation, Xerostomia blurred vision, light intolerance, Immune hypersensitivity reaction, coma, raised intraocular pressure, respiratory depression
BUMETANIDE (Bumex) Diuretic/ Acute Pulmonary edema, CHF and Renal disease	0.53 -2mg over 1-2 minutes	Administer over 1 to 2 min may be diluted in D5W, NS, or LR	Multiple drug interactions; dizziness, N&V, hypotension, and decrease calcium and K+, hypotension,hyperuricemia, musculoskeletal: cramp, headache
DEXAMETHASONE (Decadron) Anti-emetic; anti-inflammatory	4 mg	Instruct patient to report signs/symptoms of infection or hyperglycemia. Diabetic patients may need to closely monitor blood glucose.	Insomnia, nervousness, increased appetite, fluid retention
DEXTROSE 50% For Carbohydrate/ symptomatic hyperglycemia	10 to 25 grams intravenously. Repeat dose as necessary.	Repeat dose as necessary. Draw blood glucose before administering, but in emergencies promptly administer dextrose without waiting for lab results. Phlebitis risk; pain at injection site; large bore IV access	Hyperglycemia, cerebral ischemia, pulmonary edema, confusion, hypokalemia, hypomagnesaemia, hypophosphatemia, anaphylaxis
DIAZEPAM (Valium) Antianxiety Anticonvulsant Benzodiazepine, Long Acting	Inject slowly; do not administer faster than 5 mg/min	Avoid intra-arterial administration or extravasation Do not mix or dilute with other solutions or drugs in syringe or infusion flask. Do not use small veins for injection; if direct injection is not feasible, may inject through infusion tubing as close as possible to the vein insertion	Cardiovascular: Hypotension Neurologic: Ataxia, Sedated, Somnolence Respiratory: Respiratory depression Other: Fatigue

IV push meds chart.xls

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
DIGOXIN (Lanoxin) Cardiac Glycoside Cardiovascular Agent Digitalis Glycoside	For SVT: loading dose, 0.25 mg IV every 2 h up to 1.5 mg MAX; For rapid digitalization, give loading dose of 0.4 to 0.6 mg IV (may be given orally) Infuse over at least 5 min	Can be administered undiluted or diluted with a 4-fold or greater volume of SWFI, NS, or D5W Do not flush syringe with the parenteral solution after its contents are expelled into an indwelling vascular catheter. Slow infusion is preferred over bolus administration	Cardiac dysrhythmia, diarrhea, Loss of appetite, Nausea and vomiting headache, visual disturbance
DILTIAZEM (Cardizem) Calcium channel blocker, anti-arrhythmic or SVT, rapid Afib/ Aflutter	Initial 0.25 mg/kg (or 20 mg) IV over 2 min; if inadequate response, may give second bolus 0.35 mg/kg (25 mg) after 15 min	Start infusion after bolus dose at 5 mg/h; may titrate to 15 mg/h as needed for up to 24 h (injection) give bolus over 2 min; may repeat in 15 min if inadequate response to first dose may dilute with NS or D5W Oral Caution in patients with CHF, MI, impaired LV function, severe hypotension, 2nd or 3rd degree AV block, bradycardia.	Decreased HR, cause dysrhythmias, hypotension
DIPHENHYDRAMINE (Benadryl) Antihistamine, Histamine 2 antagonist	Anaphylaxis; Adjunct: in addition to epinephrine therapy, 10 to 50 mg IM/IV (rate not to exceed 25 mg/min) every 2 to 3 h; doses of 100 mg/dose may be used if necessary;	Administer IV at a rate generally not exceeding 25 mg/min	Anaphylaxis, Xerostomia, dizziness, dyskinesia, sedation, somnolence, nasal mucosa dry, pharyngeal dryness, thick sputum, bronchial hypotension, tachycardia insomnia
EFTIBATIDE (Integrilin) Platelet-aggregation inhibitor. For Acute Coronary syndrome (Unstable Angina or non-Q wave MI)	Single 180 mcg/kg over 1-2 mins	IV infusion should be subsequently initiated at 0.5 to 2 micrograms/kg/minute	Bleeding
EPINEPHRINE (Adrenaline chloride) Cardiac stimulant, vasopressor, bronchodilator, antiallergic	1 to 10 mcg/min	Infuse via central line, extravasation can occur (necrosis and sloughing). Follow with a rapid flush to ensure delivery of epinephrine. Incompatible with alkaline solutions.	Dysrhythmias, blanching (extravasation)

IV push meds chart.xls

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
EPOETIN ALFA (Epopen) Erythropoietic Hematopoietic	Anemia of chronic renal failure: initial, 50 to 100 units/kg IV For Zidovudine adverse reaction: 100 units/kg IV	Use the lowest dose that will gradually increase the hemoglobin concentration to the lowest level sufficient to avoid the need for red blood cell transfusion. Antithrombotic prophylaxis should be strongly considered when epoetin alfa is used pre-operatively to reduce allogeneic red blood cell transfusions due to a higher incidence of DVT in patients receiving epoetin alfa who were not receiving prophylactic anticoagulation . Follow with saline flush to prevent adherence to tubing	Adverse outcomes have been reported in cancer patients treated with erythropoiesis-stimulating agents (ESAs) including: shortened time to tumor progression, shortened overall survival, and increased deaths attributed to disease progression. Iron deficiency, arthralgia, headache
FENTANYL CITRATE Pure opioid analgesic used to achieve analgesia	For analgesia: 0.5 to 1.5 mcg/kg IV; may repeat every 1 to 3 minutes to desired effect	Monitor: pain reduction, mental and respiratory status (injection) induction of anesthesia, cardiac function, vital signs. Rapid administration may result in apnea or respiratory paralysis.	Injectable form of this drug may also cause muscle rigidity .
FLUMAZENIL I (Romazicon) Benzodiazepine antagonist	0.2 mg over 30 seconds initial, can repeat with 0.3 mg (maximum 4 doses)	Pt. may need additional doses in case of re-sedation. Caution with seizure patient Use large vein and free-flowing IV to minimize pain	Pt. may need additional doses in case of re-sedation. Caution with seizure patient
FUROSEMIDE (Lasix) Loop diuretic/ Volume overload-CHF	20-40 mg (maximum 80 mg)	Consider IVPB over 5-10 minutes	Hypotension, headache, dizziness
HEPARIN Anti-coagulant	Varies- 3,000 units to 8, 000 units	Invert infusion solutions at least 6 times to prevent pooling. Monitor Coagulation tests, hematocrit; and platelets; periodically during therapy; Discontinue therapy if platelet count is below 100,000 cubic millimeters Monitor stool occult blood tests. Observe for signs/symptoms of hemorrhage Antagonist is Protamine	Bleeding, APTT, Hct, Hgb, Thrombocytopenia, (HIT-heparin-induced)
HYDROCORTISONE SUCCINATE (Solu-Cortef) Anti-inflammatory	15-240 mg (IV given usually in emergency)	Caution in elderly. May need to taper therapy. Monitor electrolytes	May mask signs of infection

IV push meds chart.xls

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
INSULIN (REGULAR only) indicated for Pancreatic Hormone/ Hyperglycemia/ Hyperkalemia	5-10 units over 10 seconds	Push for hyperkalemia only. Only Regular insulin can be given IV. Monitor fingerstick capillary blood glucose.	Hypoglycemia
LABETALOL(Trandate/Normodyne) Antihypertensive, alpha/beta adrenergic blocking agent	IV push: undiluted 10 to 20 mg over 2 min., may repeat at 40 to 80 mg every 10 min <u>OR</u> start infusion at 2 mg/min	Cardiac monitoring. Monitor blood pressure before injection, 5 minutes and 10 minutes after injection, and routinely thereafter. Pt. should be supine during administration and kept supine for 3 hours after administration. * <i>Do not administer within 2 hours of a Calcium channel blocker.</i>	May mask hypoglycemia. Hypotension.
LIDOCAINE Ventricular tachycardia/ arrhythmias	25-50 mg/ minute	For non-cardiac arrest patients, administer not more than 50 mg/min. IV infusion must follow	Arrhythmias, confusion, hallucinations, psychosis esp. on prolonged infusion, convulsion, hypotension, thrombophlebitis
LORAZEPAM (Ativan) Benzodiazepine	2-4 mg diluted with equal volume of IVF	Can easily cause infiltration with IVP. Consider IVPB over 5-10 min. Reversal agent- Flumazenil	Sedation, hypotension, dizziness, headache
MEPERIDINE (Demerol) Narcotic analgesic	25-100 mg every 2-4 hours	Dilute to 10 mg with NS Reversal agent- Naloxone	Sedation, hypotension, dizziness
MIDAZOLAM (Versed) Benzodiazepine	1 to 2.5 mg IV titrated slowly	Give over at least 2 minutes. Debilitated and high risk patients: may require lower dosages whether or not concomitant sedating medications have been administered. Monitor sedation level. Reversal agent- Flumazenil	Respiratory depression and respiratory arrest, especially when used for sedation in noncritical care settings
MORPHINE Narcotic analgesic	Pain (Moderate to Severe): 2 to 10 mg IV administered slowly over 4 to 5 min Premedication for anesthetic procedure: 5 to 15 mg IV administered very slowly Pulmonary edema, acute: Adjunct: 4 to 10 mg IV over 4 to 6 min	Administer morphine sulfate injection by very slow IV injection. Reversal agent- Naloxone	respiratory depression, excessive sedation, hypotension, ineffective pain control, constipation, or urinary retention.

IV push meds chart.xls

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
<p>NALOXONE (Narcan) Pure Opiod antagonist</p>	<p>0.1- 0.8 mg</p>	<p>Administer a dilute solution of Naloxone (0.4 mg in 10 ml of saline) IV very slowly (0.5 ml over 2 minutes) while you watch for the desired effect. If patient does not arouse after the initial dose (total dose of 0.8 mg), begin looking for other causes of sedation and respiratory depression.</p>	<p>Cardiac dysrhythmia, Hypertension, Hypotension, Ventricular fibrillation, Hepatotoxicity Pulmonary edema, Opioid withdrawal</p>
<p>PROCHLORPERAZINE (Compazine) Anti-emetic</p>	<p>2.5-10 mg (0.5-2 mL) by slow IV injection</p>	<p>Monitor blood pressure, heart rate and symptoms of hypotension in patients receiving large doses and/or receiving drug parenterally. Take ECG at baseline and periodically during treatment. Frequent assessment for extrapyramidal symptoms and/or tardive dyskinesia</p>	<p>Prolonged QT interval (rare), Torsades de pointes (rare), Hypotension, Orthostatic hypotension diminished sweating, Photosensitivity, constipation, Xerostomia, akathisia, dizziness, drug-induced tardive dystonia, dystonia, Extrapyramidal disease, blurred vision, epithelial keratopathy, Eye / vision finding, retinitis pigmentosa, nasal congestion</p>
<p>PROMETHAZINE (Phenergan) Anti-emetic/ antihistamine</p>	<p>12.5 to 25 mg over 10 to 15 min, and dilute the drug in 10 to 20 mL of NS, or prepare in minibags administered at a rate no greater than 25 mg per minute</p>	<p>Monitor for infiltration. Give only through a large -bore syringe (preferably via a central vein line.). Use of hand or wrist veins is strongly discouraged. Instruct the patient to immediately report any burning or pain during or after injection and stop administration immediately. Ensure patency of site before administration, blood can become discolored upon contact with promethazine, use syringes with rigid plungers as small bore needles might obscure arterial backflow</p>	<p>Dermatitis, phototoxicity, urticaria, nausea and vomiting, Xerostomia, central nervous system depression, dizziness, extrapyramidal disease, lowered convulsive threshold, sedated, somnolence</p>

IV push meds chart.xls

Drug Name & Therapeutic category	Typical adult dose	Administration Considerations	Adverse effects/ comments
<p>PROTAMINE SULFATE Heparin antagonist</p>	<p>For Heparin toxicity: Protamine 1 mg IV for every 100 units of heparin remaining in patient; maximum 50 mg given over 10 minutes Can be given as a loading dose of 25 to 50 mg by slow IV injection, with the rest of the calculated dose over 8 to 16 hours by intravenous infusion - 25 to 50 mg IV should be given immediately after the discontinuation of a continuous infusion of heparin</p>	<p>Intended for use without dilution, however may be diluted in D5W or NS (do not store, contains no preservatives). Monitor coagulation studies, such as heparin titration test with protamine, plasma thrombin time blood pressure, heart rate</p>	<p>Flushing, nausea, vomiting, dyspnea, bradyarrhythmia, or hypotension</p>
<p>SODIUM BICARBONATE Antacid , Parenteral Electrolyte, Sodium Supplement, Indicated in cardiac arrest, DKA, respiratory, lactic and metabolic acidosis</p>	<p>Initial dose of 1 milliequivalent/kilogram (mEq/kg),</p>	<p>Extravasation and tissue calcification have occurred with sodium bicarbonate use. Monitor laboratory parameters: Blood pH, Arterial blood gases, serum electrolytes, serum osmolality, blood glucose, renal function, urinary chloride and EKG Observe for nausea, vomiting, weakness. Monitor blood pressure</p>	<p>Hypotension, decreased cardiac output, metabolic alkalosis, hypernatremia, hyperosmolality, tissue necrosis from extravasation.</p>
<p>VERAPAMIL (Isoptin) Calcium Channel Blocker Cardiovascular Agent Phenylalkylamine</p>	<p>5 to 10 mg (0.075 to 0.15 mg/kg) IV over 2-3 minutes</p>	<p>(repeat dose) give 30 min after first dose if response is not adequate. Do not dilute with sodium lactate injection in polyvinyl chloride (PVC) bags Do not mix with any solution with a pH above 6.0; precipitation will occur. Monitor blood pressure every 15 minutes x 4 and routinely thereafter, Continuous EKG.</p>	<p>Edema, hypotension, constipation, nausea dizziness, headache</p>

IV push meds chart.xls



IV push meds chart.xls

IV push meds chart.xls

IV push meds chart.xls

IV push meds chart.xls

IV push meds chart.xls