Neonatal Parenteral Information

November 29, 2022 09:03 AM

acetaminophen

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:15 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

acetylcysteine

The contents of this page correspond to order set IWK INNAC "Intravenous N-Acetylcysteine Protocol for Acute Acetaminophen Overdose". If not being used in this context, please contact pharmacy or Poison Centre

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration and use SINGLE CONCENTRATION protocol

Administration Information

IV Continuous

Standard Concentration
30 mg/mL

Monitoring
As per clinical order set IWK INNAC

Comment
Prepare bag to a final concentration of 30 mg/mL

100 mL	1. Remove 15 mL from 100 mL bag of dextrose 5% or sodium chloride 0.9% 2. Add 15 mL of NAC 200 mg/mL (20%) to 85 mL for a final volume of 100 mL

Tips for BBraun Pump Programming:

- Use large volume pump and PICU Library entry
- Program the VTBI as directed below
- **DO NOT adjust the time** - The time does not take the loading dose into consideration and if adjusted to 21 hours before the loading dose has been administered, your pump will alarm at the incorrect time

VTBI for 21 hour infusion (Loading Dose plus 20 hour infusion) = 15 mL/kg x patient weight (kg)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Hypersensitivity reactions have been reported: rash, urticaria, facial edema, hypotension/hypertension, tachycardia, bronchospasm, anaphylaxis

acyclovir

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration
7 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 2: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours) AND Urine Output

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Comments

- Ensure adequate hydration during and for at least 2 hours following administration to prevent drug precipitation in kidneys
  - Manufacturer suggests 1 litre of fluid/24 hours/gram of acyclovir and recommends a minimum urine output of 500 mL/24 hours/gram of acyclovir

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adenosine

HIGH ALERT

Administration Information

IV Direct- Doses less than 0.3 mg

Standard Concentration
0.5 mg/mL

Administration Duration
2 seconds

Monitoring
Level 3: Level 2 and continuous ECG

Comment
May be given directly into a vein or via peripheral IV site closest to patient's heart. Follow with rapid flush. Administration into lower extremity may cause treatment failure.

IV Direct- Doses greater than or equal to 0.3 mg

Standard Concentration
3 mg/mL [Supplied in Standard Concentration]

Administration Duration
2 seconds

Monitoring
Level 3: Level 2 and continuous ECG

Comment
May be given directly into a vein or via peripheral IV site closest to patient's heart. Follow with rapid flush. Administration into lower extremity may cause treatment failure.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

Additional Information

Potential Hazards of Administration

- Dyspnea, chest pressure
- Facial flushing

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alprostadil

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Continuous Infusion

Standard Concentration

6 micrograms/mL

Monitoring

Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Apnea (especially in patient less than 2 kg and generally occurs within first hour of administration. Occurs in 10-12% of neonates)
- Hypotension, bradycardia
- Fever
- Cutaneous flushing (with rapid infusion rate)
- Edema

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alteplase (CVAD occlusion/parapneumonic effusion)

HIGH ALERT

Administration Information

Instillation

Standard Concentration

1 mg/mL [Supplied in Standard Concentration]

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment

Refer to manufacturer insert provided for information on drug reconstitution and preparation.

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aminophylline

Administration Information

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration

2 mg/mL

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration

5 mg/mL

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Tachycardia
- Nausea/Vomiting
- Jitteriness/nervousness, headache, insomnia
- Muscle cramps, hyperreflexia
- Seizures

Comments
aminophylline 100 mg = theophylline 80 mg

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amiodarone

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
FILTER 0.22 micron in-line filter

Administration Information

IV Intermittent Infusion / Loading Dose (followed by continuous infusion)

Standard Concentration
6 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment

- Administration duration may be increased to reduce hypotension

IV Continuous Infusion- Patients less than or equal to 1 kg

Standard Concentration
2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Continuous Infusion- Patients greater than 1 kg via PERIPHERAL line

Standard Concentration
2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Continuous Infusion- Patients greater than 1 kg via CENTRAL line

Standard Concentration
6 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Hypotension (may be related to infusion rate)

Comments

- Do not mix or flush with 0.9% sodium chloride
- Do not use empty evacuated bottles for administration as precipitation may result
- May be mixed in a syringe (syringes do not contain PVC). PVC tubing may be used for administration
- Diluted solutions are stable for 2 hours in polyvinyl chloride (PVC) bags. If duration of infusion is more than 2 hours, use in a non-PVC container.

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amphotericin B deoxycholate (conventional)

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Intermittent Infusion

Standard Concentration
0.1 mg/mL

Administration Duration
02:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Flush line with D5W before and after administration

Compatibility Information

Compatible Solutions
10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Infusion reaction: Acute reactions (eg, fever, shaking chills, hypotension, anorexia, nausea, vomiting, headache, tachypnea) may occur within 1 to 3 hours of beginning infusion. Typically more common with the first few doses and generally lessens with subsequent doses.

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amphotericin B liposomal

HIGH ALERT

FILTER Withdraw the amount of reconstituted solution (4 mg/mL) into a syringe. Attach the 5 micron filter provided to the syringe. Inject the contents of the syringe into the appropriate volume of D5W to obtain standard concentration (2 mg/mL)

Administration Information

IV Intermittent Infusion

Standard Concentration
2 mg/mL

Administration Duration

02:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
- Do not mix with any saline containing solutions
- Flush with D5W

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration
- Infusion reaction: Acute reactions (eg, fever, shaking chills, hypotension, anorexia, nausea, vomiting, headache, tachypnea) may occur within 1 to 3 hours of beginning infusion. Typically more common with the first few doses and generally lessens with subsequent doses.

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ampicillin

Pharmacy does not prepare due to limited stability

Administration Information

IV Direct- General Dosing

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:05 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Intermittent Infusion- Meningitis

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
10 mg/kg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Intramuscular

Standard Concentration
IM 250 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

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arginine

EXTRAVASATION RISK / IRRITANT
When used as management of hyperammonemia, there is additional administration related information provided on the clinical order set (IWK EMMA)- see Drug Dosing Guideline

Administration Information

IV Intermittent Infusion- Hyperammonemia /Urea Cycle Disorder (UCD) Loading Dose

Standard Concentration

100 mg/mL

Administration Duration
01:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

IV Continuous Infusion- Hyperammonemia/Urea Cycle Disorder (UCD) Maintenance

Standard Concentration
100 mg/mL

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Compatibility Information

Compatible Solutions
10% Dextrose in Water (D10W)

Additional Information

Potential Hazards of Administration

- Infusion-related reactions: rapid infusion may result in flushing, nausea, or vomiting
- Hypotension and vasodilation

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atropine

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Direct

Standard Concentration
0.1 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:01 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

Intramuscular

Standard Concentration
0.1 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Additional Information

Potential Hazards of Administration

- Paradoxical:
  - bradycardia- particularly if injections given slower than recommendation (1 minute)
  - hyperexcitability-particularly with large doses
- Rapid rise in body temperature -children are at increased risk due to suppression of sweat gland activity

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azithromycin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration
2 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Injection site pain and inflammation

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caffeine

Administration Information

IV Intermittent Infusion- Loading Dose

Standard Concentration
10 mg(base)/mL [Supplied in Standard Concentration]

Administration Duration
00:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Intermittent Infusion- Maintenance Dose

Standard Concentration
10 mg(base)/mL [Supplied in Standard Concentration]

Administration Duration
00:10 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

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calcium gluconate

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Intermittent Infusion

Standard Concentration
50 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Administer via a large vein. Do not administer through scalp vein, small hand or foot vein.

IV Continuous Infusion

Standard Concentration

50 mg/mL

Maximum Rate of Administration

35 mg/kg/hour

Monitoring

Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Administer via a large vein. Do not administer through scalp vein, small hand or foot vein.

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Vasodilation, hypotension, bradycardia, cardiac arrhythmias (with rapid IV administration)
  - Discontinue infusion if heart rate less than 100 beats/minute in neonates.

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caspofungin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration

0.45 mg/mL

Administration Duration

01:00 (hh:mm)

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Do not mix with dextrose containing solutions

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Histamine-related effects: rash, facial swelling, sensation of warmth, angioedema, pruritis, bronchospasm
- Fever, Chills
- Hypotension

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ceFAZolin

Administration Information

IV Direct

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Intramuscular

Standard Concentration
IM 250 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Inject into large muscle

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cefoTAXime

Administration Information

IV Direct

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Administration over less than 1 minute may cause life -threatening arrhythmias

Intramuscular

Standard Concentration
IM 250 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Inject into large muscle

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ceFOXitin

Administration Information

IV Intermittent Infusion

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:15 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

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ceftAZIDime

- Carbon dioxide is released during reconstitution causing pressure within vial. Vent with needle prior to withdrawing. Expel bubbles prior to injection

Administration Information

IV Direct

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Intramuscular

Standard Concentration
IM 250 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
- Inject into large muscle

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cefTRIAXone

- **DO NOT mix cefTRIAXone with, or administer simultaneously or via Y-site with ANY calcium-containing IV solutions, including TPN and Lactated Ringers, as precipitation can occur.**
- *** Lidocaine is the *PREFERRED DILUENT FOR RECONSTITUTION* to minimize discomfort of *IM injection WHEN A PATIENT is GREATER THAN 5 KG*. Patients 5 kg or less should use sterile water as diluent. Include documentation of use of lidocaine as diluent on medication admin record.**

Administration Information

Intramuscular

Standard Concentration
350 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
*** Lidocaine is the *PREFERRED DILUENT FOR RECONSTITUTION* to minimize discomfort of *IM injection WHEN A PATIENT is GREATER THAN 5 KG*. Patients 5 kg or less should use sterile water as diluent. Include documentation of use of lidocaine as diluent on medication admin record.**

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration
- Diarrhea
- Rash
- Hypersensitivity reaction
- Hemolytic anemia
- Altered prothrombin time
- Eosinophilia, thrombocytopenia
- Pancreatitis, reversible cholelithiasis
- Elevated liver enzymes, elevated BUN and creatinine
- Injection site reactions

Comments
- Increased risk of nephrotoxicity in patients receiving concurrent nephrotoxic medications such as aminoglycosides.

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ciprofloxacin

EXTRAVASATION RISK / IRRITANT

Reserved/Restricted : Infectious Disease, Urology or Patients with Cystic Fibrosis

Administration Information

IV Intermittent Infusion

Standard Concentration

2 mg/mL [Supplied in Standard Concentration]

Administration Duration

01:00 (hh:mm)

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Use a large vein to reduce risk of venous irritation.

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cisatracurium

HIGH ALERT

Administration Information

IV Direct

Standard Concentration

2 mg/mL [Supplied in Standard Concentration]

Administration Duration

10 seconds

Monitoring

Level 3: Level 2 and continuous ECG

IV Continuous Infusion

Standard Concentration

2 mg/mL [Supplied in Standard Concentration]

Maximum Rate of Administration

10 microgram/kg/min

Monitoring

Level 3: Level 2 and continuous ECG

Comment

When continuous infusion is running, bolus doses can be administered over 10 seconds (using the bolus function)

Additional Information

Potential Hazards of Administration

- Wheezing, bronchospasm, laryngospasm (rare)

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clindamycin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration

12 mg/mL [Supplied in Standard Concentration]

Administration Duration

00:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Intramuscular

Standard Concentration
IM 150 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment
Ability to use intramuscular route may be limited by dose/volume.

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cloxacillin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Direct

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

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cosyntropin

Administration Information

IV Direct- Doses less than 125 micrograms

Standard Concentration
10 micrograms/mL

Administration Duration
00:02 (hh:mm)

Intramuscular

Standard Concentration
250 micrograms/mL [Supplied in Standard Concentration]

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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dexamethasone

Administration Information

IV Direct- Doses less than 0.05 mg

Standard Concentration
0.025 mg/mL

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Direct- Doses 0.05 to 1 mg

Standard Concentration
0.5 mg/mL

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Direct- Doses greater than 1 mg

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

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dexmedetomidine

HIGH ALERT
Reserved/Restricted : Continuous Infusion is restricted to Pediatric Acute Pain Service and Advanced Care when ordered outside of PICU, OR/PACU, NICU, ED

Administration Information

IV Intermittent Infusion- Loading Dose

Standard Concentration
4 micrograms/mL [Supplied in Standard Concentration]

Administration Duration
00:10 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

IV Continuous Infusion

Standard Concentration
4 micrograms/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

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dextrose

HIGH ALERT
Go to PALS Calculator for administration information

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Dextrose concentration, administration time, infusion rate and route are dependent upon clinical indication and patient's clinical status.

Available dextrose containing IV solutions at IWK Supply and Distribution

Click here for information on dextrose containing solutions prepared by pharmacy.

Click here for information on how to prepare dextrose bags after hours when required concentration is not available.

Administration Information

IV Infusion

Comment
Generally the following maximum concentrations apply:

- ***Peripheral:*** D12.5W
- ***Central:*** D25W

IV Intermittent Infusion

Standard Concentration
0.1 g/mL [Supplied in Standard Concentration]

Administration Duration
00:10 (hh:mm)

Monitoring
As per clinical order set IWK ORGL

Compatibility Information

Compatible Solutions
Sterile Water for Injection (SWI)

Additional Information

Potential Hazards of Administration

- Pain, phlebitis and thrombosis at injection site (due to rapid administration if peripheral vein used)

Comments

- D5W (dextrose 5% in water) = 0.05 g/mL or 50 mg/mL
- D10W (dextrose 10% in water) = 0.1 g/mL or 100 mg/mL
- D12.5W (dextrose 12.5% in water) = 0.125 g/mL or 125 mg/mL
- D25W (dextrose 25% in water) = 0.25 g/mL or 250 mg/mL
- D50W (dextrose 50% in water) = 0.5 g/mL or 500 mg/mL

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digoxin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Intermittent Infusion

Standard Concentration
10 micrograms/mL

Administration Duration
00:10 (hh:mm)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

DOBUTamine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment
- Administration through umbilical artery catheter or peripheral vessels is not recommended however in certain situations it may be given into a large peripheral vein when necessary.

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
5 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment
- Administration through umbilical artery catheter or peripheral vessels is not recommended however in certain situations it may be given into a large peripheral vein when necessary.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), 5% Dextrose in Water (D5W) AND 0.9% Sodium Chloride (NaCl), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration
- Tachycardia

DOPamine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
1600 micrograms/mL [Supplied in Standard Concentration]

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment
- Administration through umbilical artery catheter or peripheral vessels is NOT recommended

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
3200 micrograms/mL [Supplied in Standard Concentration]

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment

- Administration through umbilical artery catheter or peripheral vessels is NOT recommended

Additional Information

Potential Hazards of Administration

- Tachycardia, arrhythmias, ectopic heartbeats
- Hypertension or hypotension
- Blanching at site, Vasoconstriction

Comments

- Do not use solution if darker than slightly yellow
- Injection may contain sulfites. May cause a hypersensitivity reaction in susceptible patients

---

enalaprilat

Non-Formulary

Administration Information

IV Intermittent Infusion- Doses less than 0.25 mg

Standard Concentration
0.025 mg/mL

Administration Duration
00:05 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

enoxaparin

HIGH ALERT
Reserved/Restricted : Hematology-Oncology, PICU Intensivists

Administration Information

Subcutaneous

Standard Concentration
Subcutaneous 100 mg/mL [Supplied in Standard Concentration]

Monitoring
As per clinical order set IWK PREN or IWK THEN

Comment

- For doses less than 5 mg (0.05 mL): use 50 unit (0.5 mL) **insulin syringes**
  NOTE: 1 unit on insulin syringe = 1 mg enoxaparin = 0.01 mL
- For doses 5 mg (0.05 mL) and greater: use **tuberculin syringe**
- The recommended site for injection is the fat of the lower abdomen. Injection should be at least 5 centimeters away from the belly button and out towards the side. Select a different site of lower abdomen for each injection, alternating the left and right sides. Do not rub injection site after administration as bruising may occur.
- When using commercial pre-filled syringes, do not expel air bubble prior to administration.
- Enoxaparin 300 mg/3 mL multidose vial contains benzyl alcohol and should be avoided in neonates

- During regular pharmacy hours, pharmacy will prepare doses for neonatal patients using the preservative free syringes. If dose(s) are needed for neonates after regular pharmacy hours, it is acceptable to use the multidose vial for one or two doses until pharmacy is able to supply.

EPINEPHrine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Go to Neonatal Resuscitation Calculator for administration information in this context

Administration Information

IV Continuous Infusion- Patients less than or equal to 20 kg

Standard Concentration
0.05 mg/mL

Monitoring
Level 4: Level 3 and invasive hemodynamic monitoring and/or respiratory support (continuous)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

---

epoprostenol

HIGH ALERT

Reserved/Restricted : Intensivists, Neonatologists and/or consultation with Respirology

FILTER 0.22 micron in-line filter

- **NOTE: 1 NANOgram = 0.001 microgram**

Administration Information

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
0.5 micrograms/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Central Line PREFERRED

Comment

- Peripheral line may be used in emergency situations (ideally 12 hours or less).

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
3 micrograms/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Central Line PREFERRED

Comment

- Peripheral line may be used in emergency situations (ideally 12 hours or less).

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

esmolol

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Continuous Infusion

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

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famotidine

November 2020 - replaces IV ranitidine as formulary injectable H2 blocker

Administration Information

IV Direct

Standard Concentration
4 mg/mL

Administration Duration
00:02 (hh:mm)

Maximum Rate of Administration
10 mg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR), Sterile Water for Injection (SWI)

---

fat emulsion (Intralipid)

HIGH ALERT

- **Go to IWK Intralipid Compatibility Chart for information of compatibility**
- Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Continuous

Standard Concentration
0.2 g/mL [Supplied in Standard Concentration]

---

fat emulsion (SMOF)

HIGH ALERT

- **Go to IWK SMOF Compatibility Chart for information on compatibility**

Administration Information

IV Continuous

Standard Concentration
0.2 g/mL [Supplied in Standard Concentration]

---

fentaNYL

HIGH ALERT

Reserved/Restricted : Outside of NICU/PICU/OR/PACU/ED, the use of continuous infusion is restricted to Pediatric Acute Pain Service (APS) and Pediatric Advanced Care Team (PACT). Transdermal patch- prescribing and management is restricted to prescribers with Pediatric Acute Pain Service (APS) or Pediatric Advanced Care Team (PACT).

Administration Information

IV Direct- for pre-intubation or for intubated patients only

Standard Concentration

2 micrograms/mL [Supplied in Standard Concentration]

Administration Duration

5 seconds

IV Intermittent Infusion

Standard Concentration

2 micrograms/mL [Supplied in Standard Concentration]

Administration Duration

00:05 (hh:mm)

IV Continuous Infusion

Standard Concentration

10 micrograms/mL [Standard Concentration Prepared by Pharmacy]

Monitoring

As per clinical order set IWK FECOIN

Comment

When continuous infusion is running, bolus (intermittent) doses can be administered over 5 minutes using "BOLUS" function.
Bolus may be administered over seconds in critical care areas.

Additional Information

Potential Hazards of Administration

- Skeletal muscle and chest wall rigidity, impaired ventilation, respiratory depression, apnea or bronchospasm have occurred with rapid administration of doses.

---

filgrastim

Administration Information

Subcutaneous- Doses less than 300 micrograms

Standard Concentration

Subcutaneous 300 micrograms/mL [Supplied in Standard Concentration]

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment

- Preferred route of admin.
- Use vial. Vial contains polysorbate 80. In premature neonates, may cause thrombocytopenia, ascites, pulmonary deterioration, renal and hepatic failure.

IV Intermittent Infusion

Standard Concentration

20 micrograms/mL

Administration Duration

00:15 (hh:mm)

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment

- Remove vial from fridge approximately 30 minutes prior to injection to allow it to reach room temperature.
- Do NOT dilute use 0.9% NaCl as diluent (precipate may form)

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

fish oil emulsion

HIGH ALERT

Administration Information

IV Continuous

Standard Concentration
0.1 g/mL [Supplied in Standard Concentration]

Maximum Rate of Administration
0.05 grams/kg/hour

Comment

- Infuse in original container, use vented infusion sets.

---

fluconazole

Administration Information

IV Intermittent Infusion

Standard Concentration
2 mg/mL [Supplied in Standard Concentration]

Administration Duration
01:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

---

furosemide

Administration Information

IV Direct- Doses less than 1 mg

Standard Concentration
2 mg/mL

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min **And**

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Direct- Doses greater than or equal to 1 mg

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
0.5 mg/mL

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
2 mg/mL

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

---

ganciclovir

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Go to IWK Hazardous Drug Classification

Administration Information

IV Intermittent Infusion

Standard Concentration
5 mg/mL [Standard Concentration Prepared by Pharmacy]

Administration Duration
01:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

---

gentamicin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration
1 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:30 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Intramuscular

Standard Concentration
IM 40 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Inject into large muscle
- IM injection is associated with variable absorption, especially in the very small neonate. Use IM route only in exceptional circumstances when IV route is not available

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

glucagon

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

NOTE: 1000 microgram = 1 mg = 1 unit

Administration Information

IV Direct

Standard Concentration
0.2 mg/mL

Administration Duration
00:03 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

IV Continuous Infusion

Standard Concentration
40 micrograms/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
Do not mix with 0.9% NaCl

Subcutaneous / Intramuscular

Standard Concentration
Subcut/IM 1 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
Subcutaneous is preferred route of admin in severe hypoglycemia.

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

glycopyrrolate

Administration Information

IV Direct- Doses less than 20 micrograms

Standard Concentration
50 micrograms/mL

Administration Duration
00:03 (hh:mm)

IV Direct- Doses greater than or equal to 20 micrograms

Standard Concentration
200 micrograms/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

---

haemophilus B conjugate vaccine

Vial contains 10 micrograms/0.5 mL (20 microgram/mL). Usual dose is 0.5 mL (10 micrograms)

Administration Information

Intramuscular

Standard Concentration
IM 20 micrograms/mL [Supplied in Standard Concentration]

---

heparin

HIGH ALERT
For more information on preparing heparin bags when required concentration is not available, go to Preparing Dextrose and Electrolyte Solutions (with and without Heparin) After-Hours

Administration Information

IV Continuous Infusion- Systemic Anticoagulation

Standard Concentration
50 units/mL(D5W) [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Continuous Infusion- If NaCl 0.9% diluent is required

Standard Concentration
50 unit(s)/mL

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Continuous Infusion (Fluid)- CVAD Patency Maintenance (PICCs 2 french and smaller)

Standard Concentration
1 unit(s)/mL [Standard Concentration Prepared by Pharmacy]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Accessible from pharmacy/pyxis OR via global find after hours. **Nursing do NOT have to prepare this.**

---

hyaluronidase

Administration Information

Subcutaneous

Standard Concentration
Subcutaneous 150 unit(s)/mL [Supplied in Standard Concentration]

Comment

- Prepare 5 syringes of 30 units (0.2 mL)
- Use a new needle for each injection.
- Wait 10-15 minutes and inject 3-5 mL 0.9% NaCl into each injection site

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

hydrALAZINE

HIGH ALERT

Administration Information

IV Intermittent Infusion

Standard Concentration
1 mg/mL

Administration Duration
00:10 (hh:mm)

Maximum Rate of Administration
0.2 mg/kg/min

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

hydrocortisone

Administration Information

IV Direct- Doses less than 2.5 mg

Standard Concentration
1 mg/mL

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Direct- Doses 2.5 to 25 mg

Standard Concentration
5 mg/mL

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Direct- Doses greater than 25 mg

Standard Concentration
50 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

HYDROmorphone

HIGH ALERT

Reserved/Restricted : Controlled release capsules- prescribing and management is restricted to prescribers with Pediatric Acute Pain Service (APS), Pediatric Advanced Care Team (PACT), and hematology/oncology.

Administration Information

IV Direct- Doses less than 0.1 mg

Standard Concentration
0.05 mg/mL

Administration Duration
00:05 (hh:mm)

IV Direct- Doses greater than or equal to 0.1 mg

Standard Concentration
0.2 mg/mL

Administration Duration
00:05 (hh:mm)

IV Continuous Infusion- Patients less than or equal to 20 kg

Standard Concentration
0.05 mg/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
When continuous infusion is running, bolus (intermittent) doses can be administered over 5 minutes using "BOLUS" function.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Rapid injection may result in severe respiratory depression and hypotension
- Bradycardia, hypotension
- CNS depression
- Bronchospasm; respiratory depression
- Nausea, vomiting, itchiness
- Injection site reaction

ibuprofen

Special Access

The administration guidelines below are based on the use of ibuprofen lysine (NeoProfen)

Administration Information

IV Intermittent Infusion

Standard Concentration
5 mg/mL

Administration Duration
00:15 (hh:mm)

Comment

- Pharmacy does not prepare due to limited stability

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

indomethacin

Special Access, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Injectable: Neonatology

Administration Information

IV Intermittent Infusion

Standard Concentration
0.05 mg/mL

Administration Duration
00:30 (hh:mm)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

insulin, human regular

HIGH ALERT
Do Not Filter

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Continuous Infusion- HyperGLYCEMIA with 0.9% NaCl as diluent

Standard Concentration
0.08 unit(s)/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
USE HUMULIN R BRAND. PREPARATION IN A SYRINGE IS PREFERRED

IMPORTANT INFORMATION REGARDING PRIMING:

- New IV lines (for Syringe only): Prime new IV line with insulin solution then prime once more with an additional 1 mL of insulin solution before connecting to the IV site.
- Syringe change only (no line change): Prepare solution, label, attach syringe to tubing on an existing line and administer.

IV Continuous Infusion- HyperKALEMIA with D5W as diluent

Standard Concentration
0.08 unit(s)/mL

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
USE HUMULIN R BRAND. PREPARATION IN A SYRINGE IS PREFERRED

IMPORTANT INFORMATION REGARDING PRIMING:

- New IV lines (for Syringe only): Prime new IV line with insulin solution then prime once more with an additional 1 mL of insulin solution before connecting to the IV site.
- Syringe change only (no line change): Prepare solution, label, attach syringe to tubing on an existing line and administer.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

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ketamine

HIGH ALERT
Reserved/Restricted : Anaesthesiology, ED physicians, Intensivists in PICU, Pediatric Advanced Care Team (PACT)

Administration Information

IV Continuous Infusion

Standard Concentration
2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

levetiracetam

Administration Information

IV Intermittent Infusion

Standard Concentration
15 mg/mL

Administration Duration
00:15 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

levocarnitine

Administration Information

IV Direct

Standard Concentration
200 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

LORazepam

Administration Information

IV Direct- Doses less than 0.25 mg

Standard Concentration
0.1 mg/mL

Administration Duration
00:05 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
- Dextrose (D5W) is the **ONLY** solution to be used for dilution and flushing
- Do not mix or flush with 0.9% sodium chloride

IV Direct- Doses greater than or equal to 0.25 mg

Standard Concentration
1 mg/mL

Administration Duration
00:05 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
- Dextrose (D5W) is the **ONLY** solution to be used for dilution and flushing
- Do not mix or flush with 0.9% sodium chloride

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

magnesium sulfate

HIGH ALERT

Administration Information

IV Intermittent Infusion

Standard Concentration
40 mg/mL [Supplied in Standard Concentration]

Administration Duration
02:00 (hh:mm)

IV Intermittent Infusion / Loading Dose (followed by continuous infusion)

Standard Concentration
40 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:30 (hh:mm)

IV Continuous Infusion

Standard Concentration
40 mg/mL [Supplied in Standard Concentration]

---

meropenem

Reserved/Restricted : Infectious Disease

Administration Information

IV Intermittent Infusion

Standard Concentration
20 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

metroNIDAZOLE

Administration Information

IV Intermittent Infusion

Standard Concentration
5 mg/mL [Supplied in Standard Concentration]

Administration Duration
01:00 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

---

midazolam

HIGH ALERT

Administration Information

IV Direct- Doses less than 0.1 mg

Standard Concentration
0.05 mg/mL

Administration Duration
00:05 (hh:mm)

IV Direct- Doses 0.1 to 0.5 mg

Standard Concentration
0.2 mg/mL

Administration Duration
00:05 (hh:mm)

IV Direct- Doses greater 0.5 mg

Standard Concentration
1 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:05 (hh:mm)

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
0.2 mg/mL

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
1 mg/mL [Supplied in Standard Concentration]

Intramuscular

Standard Concentration
1 mg/mL [Supplied in Standard Concentration]

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

Additional Information

Potential Hazards of Administration

- Rapid IV administration or concurrent narcotic administration may cause severe hypotension and/or seizures in neonates
- Cardiac arrest, hypotension, bradycardia
- Respiratory depression, apnea, oxygen desaturation
- Myoclonus occurs in ~8% premature infants
- Paradoxical reaction may occur, including hyperactive or aggressive behavior
- Pain and local reaction at injection site- avoid extravasation

Monitoring Conditions

- Respiratory rate, oxygen saturation
- Heart rate, blood pressure

---

milrinone

HIGH ALERT

Administration Information

IV Intermittent Infusion (Loading Dose)- Patients less than or equal to 2 kg

Standard Concentration
0.2 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

IV Intermittent Infusion (Loading Dose)- Patients greater than 2 kg

Standard Concentration
0.4 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
0.2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

Central Line PREFERRED

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
0.4 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

Central Line PREFERRED

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Hypotension
- Increased heart rate
- Arrhythmias
- Bronchospasm

morphine

HIGH ALERT

Reserved/Restricted : Extended release capsules- prescribing and management is restricted to prescribers with Pediatric Acute Pain Service (APS), Pediatric Advanced Care Team (PACT), and hematology/oncology.

Administration Information

IV Direct- Doses less than 1 mg

Standard Concentration
0.4 mg/mL

Administration Duration
00:05 (hh:mm)

IV Direct- Doses greater than 1 mg

Standard Concentration
2 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:05 (hh:mm)

IV Continuous Infusion- Patients less than or equal to 2 kg with D5W as diluent

Standard Concentration
0.15 mg/mL

Monitoring
As per clinical order set IWK MOCO

Comment
When continuous infusion is running, bolus (intermittent) doses can be administered over 5 minutes using "BOLUS" function. Bolus may be administered over seconds in critical care areas.

IV Continuous Infusion- Patients greater than 2 kg with D5W as diluent

Standard Concentration
1 mg/mL

Monitoring
As per clinical order set IWK MOCO

Comment
When continuous infusion is running, bolus (intermittent) doses can be administered over 5 minutes using "BOLUS" function Bolus may be administered over seconds in critical care areas.

Subcutaneous

Standard Concentration
2 mg/mL [Supplied in Standard Concentration]

Compatibility Information

Compatible Solutions
0.45% Sodium Chloride (NaCl), 0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

naloxone

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Direct

Standard Concentration
0.4 mg/mL [Supplied in Standard Concentration]

Administration Duration
30 seconds

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Preferred route of administration

Intramuscular

Standard Concentration
0.4 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

neostigmine

Administration Information

IV Direct

Standard Concentration
0.5 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Subcutaneous / Intramuscular

Standard Concentration
0.5 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

---

nitroprusside

HIGH ALERT

Administration Information

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
0.15 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

Comment
- Protect from light, cover infusion with the light protective sleeve provided with the drug. It is not necessary to wrap tubing.

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
1 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

Comment
- Protect from light, cover infusion with the light protective sleeve provided with the drug. It is not necessary to wrap tubing.

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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norepinephrine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Continuous Infusion- For patients 2 kg or less OR as prescribed for Cardiac Surgery Patients

Standard Concentration
0.008 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment
Administration through umbilical arterial catheter is not recommended

IV Continuous Infusion- For patients greater than 2 kg and up to 20 kg

Standard Concentration
0.04 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Central Line PREFERRED

Comment
Administration through umbilical arterial catheter is not recommended

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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octreotide

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Continuous Infusion

Standard Concentration
5 micrograms/mL

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

IV Intermittent Infusion

Standard Concentration
5 micrograms/mL

Administration Duration
00:15 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

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palivizumab

Administration Information

Intramuscular

Standard Concentration
IM 100 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

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pantoprazole

Administration Information

IV Direct

Standard Concentration
4 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

---

penicillin G

EXTRAVASATION RISK / IRRITANT

- 0.1 million units= 0.1 MU (note : displayed in infusion pumps as MU)= 100,000 units/mL

Administration Information

IV Intermittent Infusion- Using 1 million unit Vial

Standard Concentration
0.1 millionunits/mL [Supplied in Standard Concentration]

Administration Duration
00:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Intramuscular- Doses less than 0.05 million units

Standard Concentration
0.1 millionunits/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Inject into a large muscle

Intramuscular- Doses greater than or equal to 0.05 million units

Standard Concentration
0.5 millionunits/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Comment

- Inject into a large muscle

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

PHENobarbital

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion- Loading Dose

Standard Concentration

30 mg/mL [Supplied in Standard Concentration]

Administration Duration

00:20 (hh:mm)

Maximum Rate of Administration

1 mg/kg/min

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Intermittent Infusion- Doses less than 15 mg- MAINTENANCE

Standard Concentration

5 mg/mL

Administration Duration

00:15 (hh:mm)

Maximum Rate of Administration

1 mg/kg/min

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Intermittent Infusion- Doses greater than or equal to 15 mg- MAINTENANCE

Standard Concentration

30 mg/mL [Supplied in Standard Concentration]

Administration Duration

00:15 (hh:mm)

Maximum Rate of Administration

1 mg/kg/min

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

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phentolamine

Administration Information

Subcutaneous

Standard Concentration
Subcutaneous 0.5 mg/mL

Comment

- Remove 0.2 mL from 5 mg/mL vial.
- Add 1.8 mL of 0.9% sodium chloride to provide final concentration of 0.5 mg/mL.
- Prepare 5 x 0.2 mL syringes and discard any remaining solution.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

phenyTOIN

EXTRAVASATION RISK / IRRITANT
FILTER 0.22 micron in-line filter

- Avoid administration via peripherally inserted central catheter (PICC) line if possible because risk of precipitation –consult with the PICC/central line nurse if need to administer via PICC line
- Go to Institute for Safe Medication Practices Canada Safety Bulletin: IV Phenytoin: Rate of Administration is Critical

Administration Information

IV Intermittent Infusion- Loading Dose

Standard Concentration
10 mg/mL

Administration Duration
00:40 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Intermittent Infusion- Doses less than 5 mg- MAINTENANCE DOSE

Standard Concentration
2.5 mg/mL

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Intermittent Infusion- Doses greater than or equal to 5 mg- MAINTENANCE DOSE

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

Additional Information

Comments
- Prepare dilution just prior to administration. Infusion must be completed within 4 hours of mixing.

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phytonadione

Administration Information

Subcutaneous / Intramuscular

Standard Concentration
2 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
Intramuscular is the preferred route of administration

IV Intermittent Infusion

Standard Concentration
2 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:15 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

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piperacillin|tazobactam

EXTRAVASATION RISK / IRRITANT
All concentrations (mg/mL) are based on the piperacillin component

4.5 grams = 4 grams of piperacillin and 0.5 g of tazobactam 4.5 gram vial is stocked in pedatric care areas

Administration Information

IV Intermittent Infusion

Standard Concentration
80 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

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potassium chloride

HIGH ALERT

1 mmol potassium= 1 mEq potassium

Note: 10 mmol/litre = 10 mEq/litre = 1 mEq/100 mL = 1 mEq%

CLICK HERE For additional important information on potassium chloride containing solutions AND please refer to September 2019 parenteral monograph (to be reviewed in Spring 2020).

Potassium concentration, administration time, infusion rate and route are dependent upon clinical indication and patient's clinical status

- All sources of infusing potassium should be used to calculate mmol/kg/hr the patient is receiving including, but not limited to, oral supplementation, TPN, IV maintenance solutions, and potassium infusions.

Available potassium chloride containing IV solutions at IWK Supply and Distribution

Information on preparing potassium chloride IV solution after hours

Administration Information

IV Intermittent Infusion- NICU and PICU ONLY

Standard Concentration
1 mmol/mL [Standard Concentration Prepared by Pharmacy]

Administration Duration
01:00 (hh:mm)

Central Line Only

IV Continuous Infusion- NICU and PICU ONLY

Standard Concentration
1 mmol/mL [Standard Concentration Prepared by Pharmacy]

Central Line Only

Potassium Containing Maintenance Solutions

Comment
The following maximum concentrations apply:
Peripheral: 60 mmol/L or 0.06 mmol/mL
Central: 120 mmol/L or 0.12 mmol/mL

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procainamide

HIGH ALERT

Administration Information

IV Intermittent Infusion

Standard Concentration
4 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

IV Continuous Infusion

Standard Concentration
4 mg/mL

Maximum Rate of Administration
30 mg/min

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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propranolol

HIGH ALERT

Administration Information

IV Intermittent Infusion- Doses less than 0.5 mg

Standard Concentration
0.05 mg/mL

Administration Duration
00:10 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

IV Intermittent Infusion- Doses greater than or equal to 0.5 mg

Standard Concentration
1 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:10 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

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protamine

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:10 (hh:mm)

Maximum Rate of Administration
5 mg/min

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

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pyridoxine

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Direct

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:03 (hh:mm)

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Intramuscular

Standard Concentration
100 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
- Inject into a large muscle

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rifampin

Special Access

Administration Information

IV Intermittent Infusion

Standard Concentration
6 mg/mL

Administration Duration
01:00 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

---

rocuronium

HIGH ALERT

Administration Information

IV Direct- Doses less than 1 mg

Standard Concentration
1 mg/mL

Administration Duration
5 seconds

Monitoring
Level 3: Level 2 and continuous ECG

IV Direct- Doses greater than or equal to 1 mg

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Administration Duration
5 seconds

Monitoring
Level 3: Level 2 and continuous ECG

IV Continuous Infusion- Patients less than or equal to 2 kg

Standard Concentration
2 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

IV Continuous Infusion- Patients greater than 2 kg

Standard Concentration
10 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

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salbutamol

Administration Information

IV Intermittent Infusion

Standard Concentration
0.02 mg/mL

Administration Duration
00:20 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

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sildenafil

HIGH ALERT
Reserved/Restricted : Intensivists, Neonatologists and Cardiology for initiation

Administration Information

IV Continuous Infusion

Standard Concentration
0.4 mg/mL

Maximum Rate of Administration
0.4 mg/kg/hour

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment
Note: Recommended to administer loading dose over 3 hours

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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sodium bicarbonate

Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Intermittent Infusion

Standard Concentration
0.5 mmol/mL [Supplied in Standard Concentration]

Maximum Rate of Administration
0 mmol/kg/hour

IV Continuous Infusion

Standard Concentration
0.5 mmol/mL [Supplied in Standard Concentration]

Maximum Rate of Administration
0 mmol/kg/hour

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

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succinylcholine

HIGH ALERT

Administration Information

IV Direct

Standard Concentration

1 mg/mL [Standard Concentration Prepared by Pharmacy]

Administration Duration

10 seconds

Monitoring

Level 3: Level 2 and continuous ECG

Additional Information

Potential Hazards of Administration

- Transient cardiac arrhythmias, especially bradycardia in children (increased incidence with repeat doses)

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tobramycin

Administration Information

IV Intermittent Infusion

Standard Concentration
2 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Intramuscular

Standard Concentration
IM 40 mg/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

Comment

- Inject into large muscle
- IM injection is associated with variable absorption, especially in the very small neonate. Use IM route only in exceptional circumstances when IV route is not available

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

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vancomycin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion- Doses less than or equal to 500 mg

Standard Concentration
5 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

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vasopressin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
1 unit = 1000 milliunits
Note: different concentrations depending on the indications and weight

Administration Information

IV Continuous Infusion- Patients less than or equal to 3 kg

Standard Concentration

0.16 unit(s)/mL

Monitoring
Level 4: Level 3 and invasive hemodynamic monitoring and/or respiratory support (continuous)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

IV Continuous Infusion- Patients greater than 3 kg

Standard Concentration
1 unit(s)/mL

Monitoring
Level 4: Level 3 and invasive hemodynamic monitoring and/or respiratory support (continuous)

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Subcutaneous / Intramuscular

Standard Concentration
20 unit(s)/mL [Supplied in Standard Concentration]

Monitoring
Level 2 – Level 1 but with additional monitoring parameters (e.g. pain or sedation scores blood glucose urine output etc.) and/or increased frequency of vital signs

The infusion site **must** be inspected every 30-60 minutes and documented when in use and if extravasation or infiltration is suspected. If extravasation occurs, refer to Management of Extravasation policy.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W)

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voriconazole

Administration Information

IV Intermittent Infusion

Standard Concentration
2 mg/mL

Maximum Rate of Administration
3 mg/kg/hour

Monitoring
Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Comment
ADMINISTRATION DURATION IS DOSE DEPENDENT BASED ON MAXIMUM RATE OF 3 mg/kg/hr (see calculation below)

To calculate the duration of the infusion:

1. Calculate maximum mg/hour based on patient's weight:
   3 mg/kg/hr x ____kg = ___ mg/hr
2. Calculate administration time in hours based on dose ordered:
   ____ mg (dose ordered) ÷ ____mg/hr (response from step #1) = ____ hours (administration time)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

Additional Information

Potential Hazards of Administration

- Anaphylactoid type infusion reactions – flushing, fever, sweating, tachycardia, chest tightness, dyspnea, faint, nausea, pruritis, rash, hypotension

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zidovudine

Administration Information

IV Intermittent Infusion

Standard Concentration

1 mg/mL

Administration Duration

01:00 (hh:mm)

Monitoring

Level 1: Temperature, Heart Rate, Respiration Rate, Blood Pressure, Oxygen Saturation (every 4 hours)

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)