Pediatric Parenteral Information

November 29, 2022 09:18 AM

abatacept

Reserved/Restricted : Rheumatology

FILTER 0.22 micron in-line filter

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL

Administration Duration
00:30 (hh:mm)

Subcutaneous

Standard Concentration
Subcutaneous 125 mg/mL [Supplied in Standard Concentration]

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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
Choose bag to prepare according to patient weight:

Weight	Initial Bag	Subsequent bags *
less than 17 kg	250 mL	250 mL
17 to 33 kg	500 mL	250 mL

Weight	Initial Bag	Subsequent bags *
greater than 33 kg	1000 mL	500 mL ++

* Subsequent bags may need to be prepared if greater than 21 hour NAC therapy is required

++ For a patient greater than 66.6 kg, a subsequent bag will need to be prepared to complete the initial 21 hour protocol.

Prepare bag to a final concentration of 30 mg/mL

250 mL of sodium chloride 0.9% or dextrose 5% in water	1. Remove 37.5 mL from 250 mL bag 2. Add 37.5 mL of NAC 200 mg/mL (20%) to 212.5 mL for a final volume of 250 mL
500 mL of sodium chloride 0.9% or dextrose 5% in water	1. Remove 75 mL from 500 mL bag 2. Add 75 mL of NAC 200 mg/mL (20%) to 425 mL for a final volume of 500 mL
1000 mL of sodium chloride 0.9% or dextrose 5% in water	1. Remove 150 mL from 1000 mL bag 2. Add 150 mL of NAC 200 mg/mL (20%) to 850 mL for a final volume of 1000 mL

Tips for BBraun pump programming:

Programming VTBI for 21 hour infusion (Loading Dose plus 20 hour infusion): 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.

patients less than 66.7 kg	VTBI = 15 mL/kg x patient weight (kg)
patients 66.7 kg up to 100 kg	Initial bag: VTBI = 1000 mL Subsequent Bag: VTBI = (15 mL/kg x patient weight (kg)) – 1000 mL
patients 100 kg and over	Initial bag: VTBI = 1000 mL Subsequent Bag: VTBI = 500 mL

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

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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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adalimumab

Reserved/Restricted : Rheumatology and Gastroenterology

Administration Information

Subcutaneous

Standard Concentration

Subcutaneous 50 mg/mL [Supplied in Standard Concentration]

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adenosine

HIGH ALERT

Go to PALS Calculator for administration information in context of PALS

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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alteplase (Systemic)

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

Administration Information

IV Continuous Infusion

Standard Concentration
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

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

- Refer to product insert for more information on the administration.

Additional Information

Potential Hazards of Administration

- Reperfusion arrhythmias

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aminophylline

Administration Information

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

Standard Concentration
5 mg/mL

Administration Duration
00:30 (hh:mm)

Maximum Rate of Administration
0.36 mg/kg/min **Or** 25 mg/min

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

IV Continuous Infusion

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
Go to PALS Calculator administration information in context of PALS

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

IV Continuous Infusion- 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- 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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amoxicillin|clavulanate

Pharmacy does not prepare due to limited stability

All concentrations (mg/mL) are based on the amoxicillin component

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)

Comment
Prepare immediately before administration

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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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
04:00 (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
- Do not mix with 0.9% Sodium Chloride containing solutions

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 Intermittent Infusion-Doses less than or equal to 1500 mg

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)

IV Intermittent Infusion-Doses greater than 1500 mg

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

Administration Duration
00:30 (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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anakinra

Reserved/Restricted : Rheumatology

Administration Information

Subcutaneous

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

IV Direct

Standard Concentration
150 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)

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antithymocyte globulin (equine)

Reserved/Restricted : Hematology/Oncology

FILTER 0.22 micron in-line filter

Administration Information

Intradermal Test Dose

Comment

Preparation directions:
Draw 50 mL of 0.9% sodium chloride into syringe
Remove 0.05 mL from 50 mg/mL ampoule of ATGAM
Transfer 0.05 mL of ATGAM to syringe containing 0.9% sodium chloride
This syringe now contains approximately 0.05 mg/mL of ATGAM

Withdraw 0.02 mL for intradermal administration from the 0.05 mg/mL prepared syringe

Use remainder of ATGAM ampoule contents to prepare IV dose.

IV Intermittent Infusion

Standard Concentration
4 mg/mL

Administration Duration
06:00 (hh:mm)

Central Line PREFERRED

Comment

- Although the rate of administration is listed as 6 hours per above, the following are more specific recommendations for rate of administration:
  - **Initial dose:** Run infusion at half-rate for 30 minutes. If tolerated, increase to full rate for remainder of infusion.
  - **Subsequent doses:** Initiate at maximum rate tolerated with initial dose administration.
- Maximum infusion time: 20 hours (as suggested by IWK Hematology/Oncology)
- Invert bag when adding drug to prevent exposure of drug to air. Mix gently – do not shake.
- Once infusion prepared must be used within 24 hours. This 24 hour expiry includes the infusion time.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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antithymocyte globulin (rabbit)

FILTER 0.22 micron in-line filter

- Located in the BBraun Smart Pump **Pediatric drug library** under "**ATG RABBIT**"

Administration Information

IV Intermittent Infusion- Initial Dose

Standard Concentration
0.5 mg/mL

Administration Duration
08:00 (hh:mm)

Monitoring
As per clinical order set IWKRETRRA

Central Line PREFERRED

Comment

- Allow vial(s) to reach room temperature before reconstitution.
- Reconstituted vials and diluted solutions should be used as soon as possible as they do not contain any preservative

IV Intermittent Infusion- Subsequent Doses

Standard Concentration
0.5 mg/mL

Administration Duration
06:00 (hh:mm)

Monitoring
As per clinical order set IWKRETRRA

Central Line PREFERRED

Comment

- Allow vial(s) to reach room temperature before reconstitution.
- Reconstituted vials and diluted solutions should be used as soon as possible as they do not contain any preservative.

Compatibility Information

Compatible Solutions

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

Additional Information

Potential Hazards of Administration

- Hypertension, tachycardia
- Infusion hypersensitivity reaction (chills, fever, headache)
- Abdominal pain, nausea, diarrhea

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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

IV Intermittent- Growth Hormone Stimulation Test

Standard Concentration

100 mg/mL [Standard Concentration Prepared by Pharmacy]

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

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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arsenic trioxide

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
02:00 (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.

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ascorbic acid

Administration Information

IV Intermittent Infusion

Standard Concentration
100 mg/mL

Administration Duration
00:30 (hh:mm)

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

Comment

- 1 vial may be used for 24 hours

Compatibility Information

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

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asparaginase (Erwinia)

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
02:00 (hh:mm)

Comment
Infusion rate: 20% of the total volume over the first hour, 80% of the total volume over the second hour.

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atropine

Go to PALS Calculator for administration information
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
00:01 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

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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azacitidine

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
00:30 (hh:mm)

Comment
Infusion must be completed within 45 minutes of vial reconstitution

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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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basiliximab

Administration Information

IV Intermittent Infusion

Standard Concentration
0.4 mg/mL

Administration Duration
00:20 (hh:mm)

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

Comment
- Do not mix with other medications

Compatibility Information

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

Additional Information

Potential Hazards of Administration
- Severe hypersensitivity reactions have occurred within 24 hours. Reactions, including anaphylaxis, may occur with the initial exposure and/or following re-exposure after several months; use caution during re-exposure to a subsequent course of therapy in a patient who has previously received basiliximab.

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benztropine

Administration Information

Intramuscular

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

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

Comment
Preferred route of administration

IV Direct

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

Administration Duration
00:02 (hh:mm)

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

Comment
IV route reserved for use when intramuscular and oral routes are not feasible.

- There is no difference in onset of action between IM and IV (15 minutes) administration.

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bevacizumab

Reserved/Restricted : Ophthalmology (Retinopathy of Prematurity), ENT (Respiratory Papilloma)

Administration Information

IV Intermittent Infusion- Initial Dose

Standard Concentration
10 mg/mL

Administration Duration
01:30 (hh:mm)

Monitoring

As per clinical order set IWK BEVA

Comment

- Sodium Chloride 0.9% (NS) is the **ONLY** solution to be used for dilution.
- Do not mix or flush with D5W

IV Intermittent Infusion- Second Dose

Standard Concentration
10 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
As per clinical order set IWK BEVA

Comment

- Sodium Chloride 0.9% (NS) is the **ONLY** solution to be used for dilution.
- Do not mix or flush with D5W

IV Intermittent Infusion- Third and Subsequent Doses

Standard Concentration
10 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK BEVA

Comment

- Sodium Chloride 0.9% (NS) is the **ONLY** solution to be used for dilution.
- Do not mix or flush with D5W

IV Intermittent Infusion- Slow Infusion

Standard Concentration
10 mg/mL

Administration Duration
03:00 (hh:mm)

Monitoring
As per clinical order set IWK BEVA

Comment

- Sodium Chloride 0.9% (NS) is the **ONLY** solution to be used for dilution.
- Do not mix or flush with D5W

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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bivalirudin

HIGH ALERT

Reserved/Restricted : Hematology- For patients with heparin resistance or heparin induced thrombocytopenia

Administration Information

IV Continuous Infusion

Standard Concentration
5 mg/mL

Compatibility Information

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

bleomycin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

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.

blinatumomab

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

FILTER 0.22 micron in-line filter
Provided ready to administer by IWK Pharmacy

Administration Information

IV Continuous Infusion

Comment
IV continuous infusion for 28 days

bortezomib

EXTRAVASATION RISK / IRRITANT
Reserved/Restricted : Hematology/Oncology

Administration Information

IV Direct

Administration Duration
3-5 seconds

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)

brentuximab vedotin

HIGH ALERT
Reserved/Restricted : Hematology/Oncology for pediatric patients with Hodgkin's Lymphoma including : 1) relapse patients as a bridge to autologous bone marrow transplant 2) relapse patients post autologous bone marrow transplant for consolidation therapy 3) newly diagnosed patients with high-risk disease

Administration Information

IV Intermittent Infusion

Administration Duration
00:30 (hh:mm)

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)

calcium chloride

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Go to PALS Calculator for Administration Information

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

Administration Information

IV Continuous Infusion

Standard Concentration
50 mg/mL

Maximum Rate of Administration
90 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.

Central Line Only

Compatibility Information

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

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)

Maximum Rate of Administration

100 mg/min

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

Standard Concentration
50 mg/mL

Maximum Rate of Administration
25 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.

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.

CARBOplatin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
01:00 (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.

---

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

---

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

---

cefepime

EXTRAVASATION RISK / IRRITANT

Reserved/Restricted : Pediatric oncology patients with febrile neutropenia who either have a documented allergy to penicillin OR who are receiving high dose methotrexate (500 mg/m2)

Administration Information

IV Intermittent Infusion

Standard Concentration

40 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)

---

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

---

ceFOXitin

Administration Information

IV Direct

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)

Intramuscular

Standard Concentration
IM 400 mg/mL [Supplied in Standard Concentration]

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

Comment
IM injection is painful

---

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

---

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.**
- Non-neonatal patients concomitantly receiving calcium containing solutions and cefTRIAXone, may be given when:
  - sequentially to one another provided the infusion line is flushed thoroughly between infusions with a compatible solution OR
  - concurrently through a separate infusion site
- *** 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

IV Intermittent Infusion

Standard Concentration
40 mg/mL

Administration Duration
00:10 (hh:mm)

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

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.

---

cefUROXime

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)

---

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.

---

cisatracurium

HIGH ALERT

Administration Information

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)

CISplatin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

COG protocol will dictate IV administration time

Administration Information

IV Intermittent Infusion

Maximum Rate of Administration

20 mg/m²/hour

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.

---

clindamycin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion- Doses less than or equal to 600 mg

Standard Concentration

18 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.

IV Intermittent Infusion- Doses 601 to 900 mg

Standard Concentration

18 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.

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.

---

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.

IV Intermittent Infusion

Standard Concentration
100 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.

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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)

IV Direct - Doses greater than or equal to 125 micrograms

Standard Concentration
50 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)

---

cyanocobalamin

Administration Information

Intramuscular

Standard Concentration
IM 1000 micrograms/mL [Supplied in Standard Concentration]

Comment
For additional info, refer to Guidelines for Subcutaneous and Intramuscular injection

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cyclophosphamide

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Nephrology, Rheumatology, Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion- Oncological Indications-Doses less than 500 mg/m²

Administration Duration
00:15 (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.

IV Intermittent Infusion- Oncological Indications-Doses greater than or equal to 500 mg/m²

Administration Duration
01:00 (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.

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cycloSPORINE

Reserved/Restricted : Nephrology, Immunology, Gastroenterology, Rheumatology, Dermatology

- Use only non-PVC bags for mixing and low-sorbing IV administration sets (available from Central Stores)
- Anaphylactic reaction with first intravenous dose- hypersensitivity reaction orders required.
  - Anaphylaxis most likely occurs due to the IV vehicle polyoxyethylated castor oil rather than the drug itself as the oral product does not possess the same risk. This reaction may present as flushing of face and upper thorax, respiratory distress with dyspnea and wheezing, blood pressure changes and tachycardia
  - Monitor for signs of hypersensitivity reaction for first 30 minutes from start of infusion and frequently thereafter.

Administration Information

IV Continuous Infusion

Standard Concentration
2 mg/mL

Monitoring
Level 2: Level 1 AND Blood Pressure, Heart Rate every 5 minutes for the initial 15 minutes of infusion

IV Intermittent Infusion

Standard Concentration
2 mg/mL

Administration Duration
02:00 (hh:mm)

Monitoring
Level 2: Level 1 AND Blood Pressure, Heart Rate every 5 minutes for the initial 15 minutes of infusion

Comment
Administer consistently via a dedicated lumen to allow therapeutic drug monitoring from opposite lumen

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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cytarabine

HIGH ALERT
Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion- Doses less than or equal to 200 mg/m²/dose

Administration Duration
00:15 (hh:mm)

IV Intermittent Infusion- Doses between 201 to 2999 mg/m²/dose

Administration Duration
01:00 (hh:mm)

IV Intermittent Infusion- Doses greater than or equal to 3000 mg/m²/dose

Administration Duration
03:00 (hh:mm)

IV Continuous Infusion

Administration Duration
24:00 (hh:mm)

DACTINomycin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

COG protocol will dictate IV administration time

Administration Information

IV Direct

Administration Duration
00:01 (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.

IV Intermittent Infusion

Administration Duration
00:15 (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.

---

dantrolene

EXTRAVASATION RISK / IRRITANT
For more detailed administration information see Medication Management Policy 30.21 or see most current guidelines from Malignant Hyperthermia Association of the US (MHAUS)

Administration Information

IV Direct

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

Administration Duration
00:02 (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

- Stable for 6 hours once reconstituted

IV Intermittent Infusion

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

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
- Stable for 6 hours once reconstituted

Compatibility Information

Compatible Solutions
Sterile Water for Injection (SWI)

DAPTOmycin

Reserved/Restricted : Infectious Disease

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL

Administration Duration
00:30 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

DAUNOrubicin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion - Central line, when administered WITH dexrazoxane

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.

IV Intermittent Infusion - Central line, when administered WITHOUT dexrazoxane

Administration Duration
00:15 (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.

IV Intermittent Infusion- Peripheral Line

Administration Duration
00:15 (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.

IV Continuous Infusion- Central Line

Administration Duration
24:00 (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.

---

desmopressin

Reserved/Restricted : Hematology-Oncology, Endocrinology

All inpatients with diabetes insipidus should have endocrinology involved in fluid/electrolyte/desmopressin management

Administration Information

Subcutaneous (use Octostim®)

Standard Concentration
Subcutaneous 15 micrograms/mL [Supplied in Standard Concentration]

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

Comment
May use 4 microgram/mL (DDAVP®) if dose volume is appropriate for patient size

IV Direct- Central Diabetes Insipidus (use DDAVP®) - Critical Care Areas Only

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

Administration Duration
10 seconds

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

IV Intermittent Infusion- Bleeding Disorder (using DDAVP® 4 microgram/mL)

Standard Concentration
0.5 micrograms/mL

Administration Duration
00:30 (hh:mm)

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

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

Additional Information

Potential Hazards of Administration

- Hypertension or hypotension, tachycardia -enhanced with rapid infusion
- **Hyponatremia, water intoxication**
- Decreased urine output for 6-8 hours
- Facial flushing, headache, abdominal cramps
- **Hyponatremia induced seizures** (in young children with IV administration). Fluid restriction and careful monitoring of serum sodium levels and urine output are required.
- Increased risk of thrombus

Monitoring Conditions

- **Signs of hyponatremia and water intoxication** – nausea, vomiting, headache, decreased reflexes, disorientation, confusion, drowsiness, restlessness, irritability, muscle cramps/cramps/spasms, altered mental status, seizure activity

- **Serum electrolytes and osmolality; urine output, osmolality and electrolytes; fluid intake-** careful fluid intake restriction to prevent possible hyponatremia and water intoxication
- Coagulation factors as ordered by physician (if deemed necessary)
- Heart rate, blood pressure – prior to and following IV administration. Contact physician if heart rate or blood pressure changes greater than 20% or if oliguria.

---

dexamethasone

Administration Information

IV Direct- Doses less than 10 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)

IV Intermittent Infusion- Doses greater than or equal to 10 mg

Standard Concentration
0.4 mg/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), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W)

---

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
As per clinical order set IWK DEAPS OR 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

---

dexrazoxane

HIGH ALERT
Go to IWK Hazardous Drug Classification

To be administered by APPHON chemotherapy/biotherapy trained RN only

Administration Information

IV Infusion

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

Administration Duration
00:10 (hh:mm)

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

Comment
IV infusion immediately prior to anthracycline dose

Compatibility Information

Compatible Solutions
Lactated Ringer's (LR)

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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 (a large arm vein should be used and ideally site alternated daily)
- ***Central:*** D50W

IV Direct- Emergency Situations ONLY

Standard Concentration
0.5 g/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
See also PALS calculator for administration info

IV Direct- Emergency Situations ONLY

Standard Concentration
0.25 g/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

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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diazepam

Administration Information

IV Direct- Doses less than 2.5 mg

Standard Concentration
0.2 mg/mL

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
2 mg/min

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

Comment

- Mix and give immediately. Discard remainder.
- To avoid thrombosis, do not administer into small veins. If direct administration is not feasible, then inject through infusion tubing as close as possible to vein insertion. Small veins such as those of the wrist or dorsum of the hand should not be used.

IV Direct- Doses greater than or equal to 2.5 mg

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

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
2 mg/min

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

Comment

- To avoid thrombosis, do not administer into small veins. If direct administration is not feasible, then inject through infusion tubing as close as possible to vein insertion. Small veins such as those of the wrist or dorsum of the hand should not be used.

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

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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)

---

dimenhyDRINATE

Administration Information

IV Direct

Standard Concentration
5 mg/mL

Administration Duration
00:02 (hh:mm)

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

Subcutaneous / Intramuscular

Standard Concentration
50 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), Lactated Ringer's (LR)

---

dinutuximab

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Comment
Initiate infusion at 5 mL/hour, decrease or increase rate as per patient tolerability.

Total duration of infusion not to exceed 20 hours, regardless of amount of drug administered.

Rate of administration not to exceed 1.75 mg/m^2/hour.

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diphenhydrAMINE

Reserved/Restricted : -Parenteral route is restricted to: Cutaneous reactions when oral route contraindicated or not feasible (Hematology-Oncology, PICU, Pediatric Recovery Room, Adult Surgery Recovery Room and Birth Unit Recovery Room). -PO route is restricted to emergency management of anxiety in consultation with psychiatry.

Administration Information

IV Intermittent Infusion

Standard Concentration

10 mg/mL

Administration Duration
00:10 (hh:mm)

Maximum Rate of Administration
25 mg/min

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

IV Direct

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

Administration Duration
00:05 (hh:mm)

Maximum Rate of Administration
25 mg/min

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

Intramuscular

Standard Concentration
50 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)

DOBUTamine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

- For administration guidelines outside of PICU or NICU, go to Policy 25.40 Inotrope Infusions on Cardiology Inpatient Unit

Administration Information

IV Continuous Infusion

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

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

---

DOXOrubicin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion - Central line, when administered WITH dexrazoxane

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.

IV Intermittent Infusion - Central line, when administered WITHOUT dexrazoxane

Administration Duration
00:15 (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.

IV Intermittent Infusion- Peripheral Line

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.

IV Continuous Infusion- Central Line

Administration Duration
24:00 (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.

---

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)

IV Intermittent Infusion- Doses greater than or equal to 0.25 mg

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

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 PALS Calculator for administration information in context of PALS

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

IV Continuous Infusion- Patients greater than 20 kg

Standard Concentration
0.2 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

IV Continuous Infusion- As prescribed for Cardiac Surgery Patients

Standard Concentration
0.012 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

Intramuscular

Standard Concentration
1 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.

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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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

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)

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ertapenem

Reserved/Restricted : Infectious Diseases

Administration Information

IV Intermittent Infusion

Standard Concentration
20 mg/mL

Administration Duration
00:30 (hh:mm)

Intramuscular

Standard Concentration
IM 280 mg/mL [Supplied in Standard Concentration]

Compatibility Information

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

---

erythromycin

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration
2.5 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), Lactated Ringer's (LR)

---

esmolol

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Loading Dose (follow with continuous infusion)

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

Administration Duration
00:02 (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

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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etanercept

Reserved/Restricted : Rheumatology, Dermatology. Note: Patient provides own medication

Administration Information

Subcutaneous

Standard Concentration
Subcutaneous 25 mg/mL

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

Subcutaneous

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

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

---

etoposide

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
06:00 (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.

Comment
DEHP-free and PVC free, low-sorbing (polyethylene lined) tubing set and bag are required for administration

IV Continuous Infusion- Primary mediastinal lymphoma protocol (DA-EPOCH)

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
IV continuous infusion for 96 hours

DEHP-free and PVC free, low-sorbing (polyethylene lined) tubing set and bag are required for administration

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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- Critical care areas- Doses below 15 micrograms

Standard Concentration
10 micrograms/mL

Administration Duration
5 seconds

IV Direct- Critical care areas- Doses greater than or equal to 15 micrograms

Standard Concentration

50 micrograms/mL [Supplied in Standard Concentration]

Administration Duration
5 seconds

IV Direct

Standard Concentration
10 micrograms/mL

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.

IV Continuous Infusion- PICU - Fluid Restriction

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

Monitoring
As per clinical order set IWK FECOIN

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

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.

---

ferric derisomaltose

EXTRAVASATION RISK / IRRITANT
Reserved/Restricted :

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL

Administration Duration
00:20 (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.

Comment
Order set to be developed with monitoring and administration guidance

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

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.

Subcutaneous- Doses equal to 300 micrograms

Standard Concentration
Subcutaneous 600 micrograms/mL [Supplied in Standard Concentration]

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

Comment
- Use prefilled syringe (Grastofil brand)

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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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)

---

fludarabine

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
00:30 (hh:mm)

flumazenil

Administration Information

IV Direct

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

Administration Duration
15-30 seconds

Maximum Rate of Administration
0.2 mg/min

Comment
Administer via a freely running IV infusion into larger vein (to decrease chance of pain, phlebitis).

Compatibility Information

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

folic acid

Administration Information

IV Direct

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

Administration Duration
00:01 (hh:mm)

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

Subcutaneous / Intramuscular

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

fosaprepitant

Reserved/Restricted : Hematology/Oncology

Administration Information

IV Intermittent Infusion - Patients less than 12 years

Standard Concentration
3 mg/mL

Administration Duration
01:00 (hh:mm)

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

IV Intermittent Infusion - Patients 12 years and greater

Standard Concentration
3 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)

Additional Information

Monitoring Conditions
- Monitor for signs of hypersensitivity reaction

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furosemide

Administration Information

IV Direct- Doses less than or equal to 20 mg

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

Administration Duration
00:05 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min **And** 4 mg/min

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

IV Intermittent Infusion- Doses greater than 20 mg

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

Administration Duration
00:10 (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

Standard Concentration
2 mg/mL

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

Intramuscular

Standard Concentration
10 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), 10% Dextrose in Water (D10W), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

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galsulfase

Reserved/Restricted : Medical Genetics

FILTER 0.22 micron in-line filter

Administration Information

IV Intermittent Infusion

Standard Concentration
0.2 mg/mL

Comment
0.025 mg/kg/hour for 1 hour, then (as per order) 0.325 mg/kg/hour for 3 hours

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

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.

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gemtuzumab ozogamicin

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

FILTER 0.22 micron in-line filter

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
02:00 (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.

---

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.

IV Intermittent Infusion- Fluid Restriction

Standard Concentration
4 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

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. 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
1 mg/mL [Supplied in Standard Concentration]

Administration Duration
00:05 (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

Subcutaneous / Intramuscular

Standard Concentration
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

IV Continuous Infusion

Standard Concentration
0.1 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
For Anaphylaxis in Emergency Department **ONLY**

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

glycopyrrolate

Administration Information

IV Direct

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

Maximum Rate of Administration
20 microgram/min

Comment
Variable duration of admin (see Max rate)

Compatibility Information

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

---

golimumab

Reserved/Restricted : Dermatology, Gastroenterology, Rheumatology. Note: Patient provides own medication

FILTER 0.22 micron in-line filter

Administration Information

IV Intermittent Infusion

Standard Concentration
1 mg/mL

Administration Duration
00:30 (hh:mm)

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

Comment
- Do not infuse in same line as any other medication.

Subcutaneous

Standard Concentration
Subcutaneous 100 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)

---

granisetron

Administration Information

IV Direct

Standard Concentration
1 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)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl), 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]

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haloperidol

Administration Information

Intramuscular

Standard Concentration
IM 5 mg(base)/mL [Supplied in Standard Concentration]

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

Comment
- IM Route is the preferred route of administration as IV administration is associated with a higher incidence of cardiovascular adverse effects.

IV Direct

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

Administration Duration
00:05 (hh:mm)

Maximum Rate of Administration
5 mg/min **Or** 0.07 mg/kg/min

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

Comment
- IV route
  - is associated with a higher incidence of cardiovascular adverse effects.
  - is not a Health Canada approved route of admin. Use via this route is substantiated in the literature.
- IV administration should be avoided in patients with: electrolyte abnormalities, hypothyroidism, familial QT syndrome, underlying cardiac abnormality or concomitant QT prolonging medications

---

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 Intermittent Infusion- Systemic Anticoagulation, Loading Dose (followed by continuous infusion)

Standard Concentration
50 units/mL(D5W) [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)

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)

Subcutaneous

Standard Concentration
Subcutaneous 10000 unit(s)/mL [Supplied in Standard Concentration]

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/Intradermal

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 Direct

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

Administration Duration
00:05 (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 25 mg (using 100 mg Act-O-Vial)

Standard Concentration
5 mg/mL

Administration Duration
00:05 (hh:mm)

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

IV Direct- Doses from 25 mg to 499 mg (Using 100 mg Act-O-Vial)

Standard Concentration
50 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 Direct- Doses from 25 mg to 499 mg (Using 250 mg or 500 mg Act-O-Vial)

Standard Concentration
50 mg/mL

Administration Duration
00:05 (hh:mm)

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

IV Intermittent Infusion- Doses greater than or equal to 500 mg (Using 250 mg or 500 mg Act-O-Vial)

Standard Concentration
20 mg/mL

Administration Duration
00:10 (hh:mm)

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

Intramuscular (Using 100 mg Act-O-Vial)

Standard Concentration
IM 50 mg/mL

Intramuscular (Using 250 mg or 500 mg Act-O-Vial)

Standard Concentration
IM 125 mg/mL

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- Critical care areas

Standard Concentration
0.05 mg/mL

Administration Duration
5 seconds

IV Direct- Doses greater than or equal to 0.1 mg- Critical care areas

Standard Concentration
0.2 mg/mL

Administration Duration
5 seconds

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 [Standard Concentration Prepared by Pharmacy]

Monitoring
As per clinical order set IWK HYCO

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 20 kg

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

Monitoring
As per clinical order set IWK HYCO

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 / Intramuscular

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

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

---

ifosfamide

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology-Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion- Doses less than or equal to 1800 mg/m²/dose

Administration Duration
01:00 (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.

IV Intermittent Infusion- Doses greater than 1800 mg/m²/dose

Administration Duration
04:00 (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.

IV Continuous Infusion

Administration Duration
12:00 (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.

---

inFLIXimab

Reserved/Restricted : Gastroenterology, Rheumatology

FILTER 0.22 micron in-line filter

Administration Information

IV Intermittent Infusion- Standard Infusion Protocol

Standard Concentration
4 mg/mL

Monitoring
As per clinical order set IWK INPERE

Comment
Rate of administration:

Step 1:	0.2 mg/kg/hour for 15 minutes (delivers 0.05 mg/kg)
Step 2:	0.4 mg/kg/hour for 15 minutes (delivers 0.1 mg/kg)
Step 3:	0.8 mg/kg/hour for 15 minutes (delivers 0.2 mg/kg)
Step 4:	1.6 mg/kg/hour for 15 minutes (delivers 0.4 mg/kg)
Step 5:	3 mg/kg/hour for 30 minutes (delivers 1.5 mg/kg)
Step 6:	6 mg/kg/hour for 30 minutes or until complete
Step 7 (if required):	12 mg/kg/hour until infusion complete

IV Intermittent Infusion- Rapid Infusion Protocol

Standard Concentration

4 mg/mL

Monitoring

As per clinical order set IWK INPERE

Comment

Rate of administration:

Step 1: 2 mg/kg/hour for 15 minutes (delivers 0.5 mg/kg)

Step 2: For doses less than or equal to 11.75 mg/kg, infuse the remaining volume over 45 minutes
For doses greater than 11.75 mg/kg, infuse remaining volume at 15 mg/kg/hour (will exceed 45 minutes)

IV Intermittent Infusion- Slow Infusion Protocol

Standard Concentration

4 mg/mL

Monitoring

As per clinical order set IWK INPERE

Comment

Rate of administration:

Step 1: 0.1 mg/kg/hour for 15 minutes (delivers 0.025 mg/kg)

Step 2: 0.2 mg/kg/hour for 15 minutes (delivers 0.05 mg/kg)

Step 3: 0.4 mg/kg/hour for 15 minutes (delivers 0.1 mg/kg)

Step 4: 0.8 mg/kg/hour for 15 minutes (delivers 0.2 mg/kg)

Step 5: 1.6 mg/kg/hour for 15 minutes (delivers 0.4 mg/kg)

Step 6: 3 mg/kg/hour for 30 minutes (delivers 1.5 mg/kg)

Step 7: 6 mg/kg/hour for 30 minutes or until complete

Step 8 (if required): 12 mg/kg/hour until infusion complete

Compatibility Information

Compatible Solutions

0.9% Sodium Chloride (NaCl)

Additional Information

Potential Hazards of Administration

- Acute hypersensitivity reactions (during or within 2 hours of infusion): urticaria, dyspnea, and/or hypotension. Patients should be monitored for at least 1-2 hours post-infusion.
- Delayed infusion reactions (3-12 days after infusion): fever, rash, headache, flu-like symptoms, hand and facial edema and/or dysphagia

Comments

- Gently rotate vial(s) to dissolve. DO NOT SHAKE. Allow reconstituted vial to sit for 5 minutes prior to further dilution.

---

insulin aspart

Non-Formulary

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

Subcutaneous- Continuous

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

insulin degludec

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 200 unit(s)/mL [Supplied in Standard Concentration]

---

insulin detemir

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

insulin glargine

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 300 unit(s)/mL [Supplied in Standard Concentration]

---

insulin glulisine

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

Subcutaneous- Continuous

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

insulin lispro

HIGH ALERT

Refer to drug dosing guideline for IWK product selection information

Administration Information

Subcutaneous- Intermittent

Standard Concentration

Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

Subcutaneous- Continuous

Standard Concentration
Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

insulin, human NPH

HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration
Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

insulin, human regular

HIGH ALERT
Do Not Filter

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

Administration Information

Subcutaneous- Intermittent

Standard Concentration
100 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
Rotate Sites

IV Direct- Critical care areas

Standard Concentration
40 unit(s)/mL

Administration Duration
00:01 (hh:mm)

IV Continuous Infusion

Standard Concentration
1 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 or bag change only (no line change): Prepare solution, label, attach syringe or bag to tubing on an existing line and administer
- Large volume: Prime new IV line with insulin solution then prime once more with an additional 25 mL of insulin solution before connecting to the IV site.

Compatibility Information

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

---

insulin, NPH

Non-Formulary
HIGH ALERT

Administration Information

Subcutaneous- Intermittent

Standard Concentration
Subcutaneous 100 unit(s)/mL [Supplied in Standard Concentration]

---

irinotecan

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
01:30 (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.

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iron sucrose

Administration Information

IV Intermittent Infusion- Doses less than or equal to 100 mg

Standard Concentration
1 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK IRSU

IV Intermittent Infusion- Doses 101 to 200 mg

Standard Concentration
1 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
As per clinical order set IWK IRSU

IV Intermittent Infusion- Doses 201 to 300 mg

Standard Concentration
1 mg/mL

Administration Duration
01:30 (hh:mm)

Monitoring
As per clinical order set IWK IRSU

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

isoproterenol

HIGH ALERT

Administration Information

IV Continuous Infusion

Standard Concentration
0.06 mg/mL

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

Compatibility Information

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

ketamine

HIGH ALERT

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

Administration Information

IV Continuous Infusion- PAIN

Standard Concentration
2 mg/mL

Monitoring
As per clinical order set IWK KECOIN

IV Continuous Infusion- INTUBATED

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

Monitoring
Level 3: Level 2 and continuous ECG

IV Direct- Critical care areas

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

Administration Duration
00:01 (hh:mm)

Maximum Rate of Administration
0.5 mg/kg/min **Or** 2 mg/min

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

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

ketorolac

Administration Information

IV Direct

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

Administration Duration
00:01 (hh:mm)

Monitoring

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

Intramuscular

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

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

Comment
- Administer slowly and deeply into muscle. IV administration is preferred route in pediatrics due to pain associated with IM injections

---

labetalol

HIGH ALERT
Reserved/Restricted : Injectable-Anesthesiology, Obstetrics/Gynecology, Nephrology and PICU

Administration Information

IV Direct

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

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
5 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

Central Line PREFERRED

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leucovorin

Administration Information

IV Direct

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

Maximum Rate of Administration
160 mg/min

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

IV Intermittent Infusion

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

Maximum Rate of Administration
160 mg/min

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

Comment
Administration duration: 15 to 120 minutes, not to exceed the maximum rate of administration.

Compatibility Information

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

Additional Information

Potential Hazards of Administration
- Hypersensitivity reactions (**rare**) - anaphylaxis or urticaria

Comments
- **Do not administer intrathecally**

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levetiracetam

Administration Information

IV Intermittent Infusion

Standard Concentration
40 mg/mL

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
5 mg/kg/min

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)

IV Continuous Infusion

Standard Concentration
8 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)

---

levofloxacin

Reserved/Restricted : Infectious Diseases, Oncology

Administration Information

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

Standard Concentration

5 mg/mL [Supplied in Standard Concentration]

Administration Duration
01:00 (hh:mm)

IV Intermittent Infusion- Doses 501 to 750 mg

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

Administration Duration
01:30 (hh:mm)

---

levosimendan

HIGH ALERT
Reserved/Restricted : PICU Intensivists

Administration Information

IV Loading Dose (follow with continuous infusion)

Standard Concentration
0.05 mg/mL

Administration Duration
00:10 (hh:mm)

IV Continuous Infusion

Standard Concentration
0.05 mg/mL

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

levothyroxine

Administration Information

IV Direct

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

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
100 microgram/min

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

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lidocaine

HIGH ALERT

Administration Information

IV Direct

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

Administration Duration
00:03 (hh:mm)

Maximum Rate of Administration
50 mg/min

IV Continuous Infusion

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

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linezolid

Administration Information

IV Intermittent Infusion

Standard Concentration
2 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)

LORazepam

Administration Information

IV Direct

Standard Concentration
1 mg/mL

Administration Duration
00:05 (hh:mm)

Maximum Rate of Administration
2 mg/min

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

Intramuscular

Standard Concentration
IM 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
5% Dextrose in Water (D5W)

---

loxapine

Administration Information

Intramuscular

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

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

Additional Information

Potential Hazards of Administration

- Hypertension, orthostatic hypotension. Patient should remain supine or seated for 30 minutes afterwards

- Extrapyramidal side effects: acute dystonic reactions, akathisia, pseudoparkinsonism
- ECG changes (QT prolongation)

Comments

- Do not administer intravenously

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magnesium sulfate

HIGH ALERT

- Go to PALS Calculator for administration information

Administration Information

IV Intermittent Infusion

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

Administration Duration
00:30 (hh:mm)

IV Intermittent Infusion- Severe Acute Asthma/Torsades With Pulses

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

Administration Duration
00:20 (hh:mm)

IV Continuous Infusion

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

Maximum Rate of Administration
125 mg/kg/hour

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mannitol

EXTRAVASATION RISK / IRRITANT
FILTER 0.22 micron in-line filter
20 % = 0.2 gram/mL= 200 mg/mL

Administration Information

IV Direct- Critical care areas

Standard Concentration
0.2 g/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)

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

Standard Concentration
0.2 g/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)

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.

meropenem

Reserved/Restricted : Infectious Disease

Administration Information

IV Intermittent Infusion

Standard Concentration
20 mg/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)

mesna

Administration Information

IV Direct

Standard Concentration
20 mg/mL

Administration Duration
00:05 (hh:mm)

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

IV Intermittent Infusion

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

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

IV Continuous

Standard Concentration
10 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), 5% Dextrose in Water (D5W), Lactated Ringer's (LR)

methotrexate

HIGH ALERT
Reserved/Restricted : Hematology-Oncology, Nephrology, Rheumatology, Obstetrics

Provided ready to administer by IWK Pharmacy

COG protocol will dictate IV administration time

Administration Information

Subcutaneous / Intramuscular

Standard Concentration
Subcut/IM 25 mg/mL [Supplied in Standard Concentration]

IV Intermittent Infusion- Doses less than 500 mg/m²/dose

Administration Duration
00:15 (hh:mm)

IV Intermittent Infusion- Doses greater than or equal to 500 mg/m²/dose (NHL)

Administration Duration
03:00 (hh:mm)

IV Intermittent Infusion- Doses greater than or equal to 500 mg/m²/dose (Osteosarcoma/CNS)

Administration Duration
04:00 (hh:mm)

IV Continuous Infusion- Doses greater than or equal to 500 mg/m²/dose (ALL/lymphoma)

Administration Duration
24:00 (hh:mm)

Comment
10-20% administered over 30 minutes, followed by remainder over ~23.5 hours.

IV Continuous Infusion- Doses greater than or equal to 500 mg/m²/dose (Relapsed ALL)

Administration Duration
36:00 (hh:mm)

Comment
10% administered over 30 minutes, followed by remainder over 35.5 hours.

---

methotrimeprazine

Administration Information

IV Intermittent Infusion

Standard Concentration
0.2 mg/mL

Administration Duration
00:30 (hh:mm)

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

Subcutaneous / Intramuscular

Standard Concentration
IM 25 mg/mL [Supplied in Standard Concentration]

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

Comment
- Deep IM injection into large muscle
- Subcutaneous route is irritating

Compatibility Information

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

---

methylPREDNISolone ACETATE

Do Not Filter

Administration Information

Intrasynovial

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

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methylPREDNISolone sodium succinate

Prior to selecting administration information:

1. Calculate mg/kg: ordered dose (mg) ÷ patient weight (kg) = mg/kg
2. Determine which vial size (125 mg, 500 mg or 1 gram) is available in care area and select vial size closest to dose ordered
3. Then refer to appropriate administration information below based on dose (1) and vial size (2)

Administration Information

IV Direct- Doses less than or equal to 1.8 mg/kg (Using 125 mg Act-O-Vial)

Standard Concentration
62.5 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 Direct- Doses less than or equal to 1.8 mg/kg (Using 500 mg or 1 g Act-O-Vial)

Standard Concentration
125 mg/mL

Administration Duration
00:05 (hh:mm)

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

IV Intermittent Infusion- Doses less than or equal to 125 mg (Using 125 mg Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

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

IV Intermittent Infusion- Doses less than or equal to 125 mg (Using 500 mg or 1 g Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

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

IV Intermittent Infusion- Doses greater than 125 mg and less than 500 mg (Using 125 mg Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration
00:30 (hh:mm)

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

IV Intermittent Infusion- Doses greater than 125 mg and less than 500 mg (Using 500 mg or 1 g Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration

00:30 (hh:mm)

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

IV Intermittent Infusion- Doses greater than or equal to 500 mg (Using 500 mg or 1 g Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
Level 2: Level 1 AND Blood Pressure, Heart Rate every 15 minutes for the first hour, then every 30 minutes during and 1 hr post infusion. Temperature 1 hr post-infusion.

IV Intermittent Infusion- Loading Dose Peri-Op Acute Spinal Cord Injury (Using 500 mg or 1 g Act-O-Vial)

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

Monitoring
Level 2: Level 1 AND Blood Pressure, Heart Rate every 15 minutes for the first hour, then every 30 minutes during and 1 hr post infusion. Temperature 1 hr post-infusion.

IV Continuous Infusion- Peri-Op Acute Spinal Cord Injury (Using 1 g Act-O-Vial)

Standard Concentration
10 mg/mL

Monitoring
Level 2: Level 1 AND Blood Pressure, Heart Rate every 15 minutes for the first hour, then every 30 minutes during and 1 hr post infusion. Temperature 1 hr post-infusion.

Compatibility Information

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

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metoclopramide

Administration Information

IV Intermittent Infusion

Standard Concentration
0.25 mg/mL

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
5 mg/min

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

Intramuscular

Standard Concentration
IM 5 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), Lactated Ringer's (LR)

---

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

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

Administration Duration
00:02 (hh:mm)

IV Intermittent Infusion

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

Administration Duration
00:05 (hh:mm)

IV Continuous Infusion (using 1 mg/mL 10 mL vials)

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

IV Continuous Infusion (using 1 mg/mL 100 mL bag)

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 Continuous Infusion

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

---

mitoXANTRONE

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion - Central line, when administered WITH dexrazoxane

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.

IV Intermittent Infusion - Central line, when administered WITHOUT dexrazoxane

Administration Duration
00:15 (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.

IV Intermittent Infusion- Peripheral Line

Administration Duration
00:15 (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.

---

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- Critical care areas

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

Administration Duration
5 seconds

IV Direct

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

Administration Duration
00:05 (hh:mm)

IV Continuous Infusion

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

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 PALS calculator for administration information

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)

Subcutaneous

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)

IV Continuous Infusion

Standard Concentration
4 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

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)

---

nitroglycerin

Do Not Filter

Administration Information

IV Continuous Infusion

Standard Concentration
0.4 mg/mL(D5W) [Supplied in Standard Concentration]

Monitoring
Level 3: Level 2 and continuous ECG

---

nitroprusside

HIGH ALERT

Administration Information

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

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)

---

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

IV Continuous Infusion- Patients greater than 20 kg

Standard Concentration
0.16 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

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

---

octreotide

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

Administration Information

IV Continuous Infusion- If 500 micrograms/mL amps available (preferred)

Standard Concentration
5 micrograms/mL

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

IV Continuous Infusion- If only 100 micrograms/mL amps available

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)

Subcutaneous

Standard Concentration
Subcutaneous 500 micrograms/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)

OLANZapine

Administration Information

Intramuscular

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

Comment

- Reconstituted vial contents should be clear and yellow.
- Use immediately, then discard unused portion. Stable for 1 hour.
- Inject slowly deep into muscle mass.

Additional Information

Potential Hazards of Administration

- Drowsiness, dizziness
- Hypotension, tachycardia, syncope (may be associated with bradycardia)
- Extrapyramidal symptoms
- Neuroleptic malignant syndrome (hyperpyrexia, muscle rigidity, altered mental status, autonomic instability)
- Increased risk of seizure, especially if underlying seizure disorder
- Injection site pain

Monitoring Conditions

- Vital signs
  - Patients should be monitored closely for 2-4 hours after each injection for hypotension, bradyarrhythmia and hypoventilation.

---

ondansetron

Administration Information

IV Direct

Standard Concentration
2 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

Standard Concentration
0.5 mg/mL

Administration Duration
00:15 (hh:mm)

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

Comment
Usual route for prevention of chemotherapy-induced nausea/vomiting

Compatibility Information

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

---

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)

---

palonosetron

Administration Information

IV Intermittent Infusion

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

Administration Duration
00:15 (hh:mm)

Comment
- Do not mix with other drugs. Flush the line with 0.9% NaCl BEFORE and AFTER administration

IV Direct- Only in patients greater then 17 years

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

Administration Duration
30 seconds

---

pamidronate

Administration Information

IV Intermittent Infusion

Standard Concentration
0.1 mg/mL

Administration Duration
03:30 (hh:mm)

Monitoring
As per clinical order set IWK PAIN

Compatibility Information

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

---

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)

IV Continuous Infusion

Standard Concentration
0.8 mg/mL

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

Comment
Loading dose given IV direct.

Compatibility Information

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

---

pegaspargase

HIGH ALERT
Reserved/Restricted : Hematology-Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
02:00 (hh:mm)

Comment
Infusion rate: 20% of the total volume over the first hour, 80% of the total volume over the second hour.

---

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.

IV Intermittent Infusion- Using 5 million unit Vial

Standard Concentration
0.1 millionunits/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.

Intramuscular

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.

Compatibility Information

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

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pentamidine

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion

Standard Concentration
6 mg/mL

Administration Duration
02:00 (hh:mm)

Monitoring
Blood Pressure- Prior to infusion, at 10 and 30 minutes during infusion, then every 30 minutes until stable

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

PHENobarbital

EXTRAVASATION RISK / IRRITANT

Administration Information

IV Intermittent Infusion- Doses less than 120 mg - Using 30 mg/mL format

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 120 mg or greater - Using 120 mg/mL format

Standard Concentration
30 mg/mL

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.

Compatibility Information

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

---

phentolamine

Administration Information

IV Continuous Infusion

Standard Concentration
0.4 mg/mL

Monitoring
Level 3: Level 2 and continuous ECG

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)

---

phenyLEPHrine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

Administration Information

IV Direct

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

Administration Duration
20 seconds

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

Standard Concentration
0.1 mg/mL

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.

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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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
00:20 (hh:mm)

Maximum Rate of Administration
50 mg/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- Maintenance Dose

Standard Concentration
10 mg/mL

Administration Duration
00:15 (hh:mm)

Maximum Rate of Administration
50 mg/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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phosphorus|potassium (Parenteral)

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

Administration Information

IV Intermittent Infusion

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

Maximum Rate of Administration
0.06 mmol/kg/hour

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.

---

phosphorus|sodium (Parenteral)

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

Administration Information

IV Intermittent Infusion

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

Maximum Rate of Administration
0.06 mmol/kg/hour

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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phytonadione

Administration Information

Subcutaneous / Intramuscular

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

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

Comment
Subcutaneous is the preferred route of administration

IV Intermittent Infusion

Standard Concentration
10 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 Intermittent Infusion- SEVERE hypokalemia (Pediatrics/Emergency Department)

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

Central Line Only

Comment
- Administer at a rate of 0.25 mmol/kg/h, up to a maximum of 10 mmol/h.
- Continuous cardiac monitoring is required.

IV Intermittent Infusion- CRITICAL hypokalemia (Pediatrics/Emergency Department)

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

Central Line Only

Comment
- Administer at a rate of 0.5 mmol/kg/h, up to a maximum of 20 mmol/h.
- Continuous cardiac monitoring is required.

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

---

procainamide

HIGH ALERT

Administration Information

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

Standard Concentration
20 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

IV Continuous Infusion

Standard Concentration
20 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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propofol

HIGH ALERT, EXTRAVASATION RISK / IRRITANT
Reserved/Restricted : Anesthesiology, PICU Intensivists, Advanced Care Team

Do Not Filter

Administration Information

IV Direct

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

Administration Duration
30 seconds

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 large vein to reduce pain

IV Continuous Infusion

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

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 large vein to reduce pain

---

propranolol

HIGH ALERT

Administration Information

IV Intermittent Infusion

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

Administration Duration
00:10 (hh:mm)

Maximum Rate of Administration
1 mg/min

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)

---

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)

---

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

---

rasburicase

Reserved/Restricted : Hematology/Oncology

Do Not Filter

Administration Information

IV Intermittent Infusion- 1.5 mg dose

Standard Concentration
0.03 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK ORTU

Comment
Infuse through a separate infusion line, if possible. If not, flush line with at least 15 mL 0.9% NaCl before and after administration of rasburicase

IV Intermittent Infusion- 3 mg dose

Standard Concentration
0.06 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK ORTU

Comment
Infuse through a separate infusion line, if possible. If not, flush line with at least 15 mL 0.9% NaCl before and after administration of rasburicase

IV Intermittent Infusion- 4.5 mg dose

Standard Concentration
0.09 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK ORTU

Comment
Infuse through a separate infusion line, if possible. If not, flush line with at least 15 mL 0.9% NaCl before and after administration of rasburicase

IV Intermittent Infusion- 6 mg dose

Standard Concentration
0.12 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK ORTU

Comment
Infuse through a separate infusion line, if possible. If not, flush line with at least 15 mL 0.9% NaCl before and after administration of rasburicase

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

remdesivir

Non-Formulary
If both remdesivir and sotrovimab are ordered, administer remdesivir Day 1 dose first and then follow with sotrovimab dose.

After drug has been added to bag, invert 20 times to mix.

NOTE: This has NOT been added to the BBraun Drug Library.

Administration Information

IV Intermittent Infusion- Loading Dose

Standard Concentration
0.8 mg/mL

Administration Duration
01:00 (hh:mm)

IV Intermittent Infusion- Subsequent Doses

Standard Concentration
0.4 mg/mL

Administration Duration
01:00 (hh:mm)

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

---

rifampin

Special Access

Administration Information

IV Intermittent Infusion

Standard Concentration
6 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), 5% Dextrose in Water (D5W)

---

riTUXimab

Administration Information

IV Intermittent Infusion

Standard Concentration
4 mg/mL

Monitoring
As per clinical order set IWK RIOR

Comment
STANDARD INFUSION PROTOCOL

Body Surface Area Dosing (375 mg/m²)

***First Infusion Protocol*:**
Infuse over 4 hours

- Start infusion at 25 mg/m²/hour
- Increase by 25 mg/m²/hour every 30 minutes up to 125 mg/m²/hour
- Continue at 125 mg/m²/hour for 2 hours or until infusion is complete

***Subsequent Infusion Protocol*:**
Infuse over 3 hours

- Start infusion at 50 mg/m²/hour
- Increase by 50 mg/m²/hour every 30 minutes up to 150 mg/m²/hour
- Continue at 150 mg/m²/hour for 2 hours or until infusion is complete

Standardized Dose (1000 mg)

***First Infusion Protocol*:**
Infuse over 5 hours

- Start infusion at 50 mg/hour
- Increase by 50 mg/hour every 30 minutes up to 250 mg/hour
- Continue at 250 mg/hour for 3 hours or until infusion is complete

***Subsequent Infusion Protocol*:**
Infuse over ~4 hours

- Start infusion at 100 mg/hour
- Increase by 100 mg/hour every 30 minutes up to 300 mg/hour
- Continue at 300 mg/hour for ~3 hours or until infusion is complete

---

RAPID INFUSION PROTOCOL
May be considered ONLY after third infusion and if there was no previous occurrence of hypersensitivity/ anaphylactic reaction

Body Surface Area Dosing (375 mg/m²):
Infuse over 1.5 hours

- Start infusion at 150 mg/m²/hour
- Increase to 300 mg/m²/hour every 60 minutes or until infusion is complete

Standardized Dose (1000 mg)
NOT APPLICABLE. DO NOT USE RAPID INFUSION PROTOCOL FOR THIS DOSING

SLOW INFUSION PROTOCOL

May be considered for patients with a history of hypersensitivity/anaphylactic reaction

Body Surface Area Dosing (375 mg/m^2):

Infuse over 6 hours

- Start infusion at 10 mg/m^2/hour
- Increase to 10 mg/m^2/hour every every 30 minutes up to 100 mg/m^2/hour.
- Continue at 100 mg/m^2/hour for 90 minutes or until infusion is complete

Standardized Dose (1000 mg):

Infuse over 6.25 hours

- Start infusion at 25 mg/hour
- Increase to 25 mg/hour every every 30 minutes up to 250 mg/hour.
- Continue at 250 mg/hour for 105 minutes or until infusion is complete

Compatibility Information

Compatible Solutions

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

rocuronium

HIGH ALERT

Administration Information

IV Direct

Standard Concentration

10 mg/mL [Supplied in Standard Concentration]

Administration Duration

5 seconds

Monitoring

Level 3: Level 2 and continuous ECG

IV Continuous Infusion

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)

salbutamol

Administration Information

IV Continuous Infusion

Standard Concentration

1 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)

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)

---

sodium benzoate|sodium phenylacetate

EXTRAVASATION RISK / IRRITANT

Reserved/Restricted : Genetics

Administer as per clinical order set IWKEMMA

Administration Information

IV Infusion WHEN PHARMACY IS OPEN

Standard Concentration

10 mg/mL [Supplied in Standard Concentration]

Monitoring

As per clinical order set IWK EMMA

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

When diluted/ prepared to concentration, solution contains 10 mg/mL of **each** sodium benzoate and sodium phenylacetate. Pharmacy prepares when open due to offensive smell and high-cost/limited supply of medication. Refer to info below to prepare when pharmacy is closed.

IV Infusion WHEN PHARMACY IS CLOSED

Standard Concentration

10 mg/mL

Monitoring

As per clinical order set IWK EMMA

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

If required urgently outside regular Pharmacy hours, may be prepared as follows:

1. Obtain 500 mL bag D10W. Remove 97 mL (accounts for overfill) to provide 450 ml D10W.
2. Withdraw 50 mL (5000 mg) of sodium benzoate/sodium phenylacetate 100 mg/mL from 50 mL vial.
3. Add 50 mL sodium benzoate/sodium phenylacetate to 450 mL D10W
4. Total volume 500 mL of 10 mg/mL of sodium benzoate and sodium phenylacetate. Stable for 24 hours

Compatibility Information

Compatible Solutions
10% Dextrose in Water (D10W)

Additional Information

Potential Hazards of Administration
Administration via peripheral lines may cause burns.

Comments
Compatible at Y-site with arginine

Due to offensive smell, place any remaining medication or tubing in sharps container and seal.

---

sodium bicarbonate

Go to PALS calculator for administration information (Pediatrics ONLY)

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

Maximum Rate of Administration
0 mmol/kg/hour

IV Continuous Infusion- Central Line

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

Maximum Rate of Administration
1 mmol/kg/hour

Central Line Only

IV Continuous Infusion- Peripheral Line

Standard Concentration
0.5 mmol/mL

Maximum Rate of Administration
0 mmol/kg/hour

IV Continuous Infusion

Maximum Rate of Administration
1 mmol/kg/hour

Comment
Add to compatible IV solution usual concentration of 0.04-0.15 mmoL/mL

Compatibility Information

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

---

sodium chloride (hypertonic)

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**

- **3% injection = 0.513 mmol/mL**

Administration Information

IV Direct

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

Administration Duration
00:05 (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.

Central Line PREFERRED

Comment

- **For doses ordered as a volume in mL (and not mmol), calculator is not required. Follow administration duration and monitoring guidelines above.**
- May use large peripheral vein if central line not available in emergency.
- If bag is unused or partially used, place immediately in Pharmacy return bin.

IV Intermittent Infusion

Standard Concentration
0.513 mmol/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.

Central Line PREFERRED

Comment

- **For doses ordered as a volume in mL (and not mmol), calculator is not required. Follow administration duration and monitoring guidelines above.**
- May use large peripheral vein if central line not available in emergency.
- If bag is unused or partially used, place immediately in Pharmacy return bin.

IV Continuous Infusion

Standard Concentration
0.513 mmol/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.

Central Line Only

Comment

- If bag is unused or partially used, place immediately in Pharmacy return bin.

---

sotrovimab

Non-Formulary
FILTER 0.22 micron in-line filter
If both remdesivir and sotrovimab are ordered, administer remdesivir Day 1 dose first and then follow with sotrovimab dose.

NOTE: BBraun pump library is not up to date for this drug. It must be run outside of library until further notice.

Administration Information

IV Intermittent Infusion

Standard Concentration
10 mg/mL

Administration Duration
01:00 (hh:mm)

Comment
Monitoring

- Vital signs (blood pressure, heart rate, temperature, respiratory rate), SpO_2 and presence of chills, rash or pruritis at baseline, every 30 minutes during infusion and until 60 minutes post-infusion
- For any of the following, stop infusion and contact physician:
  - HR greater than 30 beats/minute above baseline
  - RR greater than 10 breaths/minute above baseline
  - O_2 sat less than 90%
  - Temperature greater than 1.5°C above baseline and/or temperature greater than 38.5°C
  - Increase/decrease in blood pressure more than 20 mm Hg from baseline (either systolic or diastolic)
  - Angioedema (throat or tongue swelling)
  - For any other concerns, consult MRP for direction/additional orders

Preparation info

- Remove vial from refrigerator and bring to room temperature for 15 minutes. Protect from light
- Gently swirl vial several times. Avoid creating bubbles
- Once sotrovimab is added to bag, rock infusion bag back and forth 3-5 times. Avoid forming bubbles. Do not invert bag.
- Administer within 6 hours of preparation

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

Additional Information

Potential Hazards of Administration
- Hypersensitivity reaction

---

succinylcholine

HIGH ALERT

Administration Information

IV Direct

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

Administration Duration
10 seconds

Monitoring
Level 3: Level 2 and continuous ECG

Intramuscular

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

Monitoring
Level 3: Level 2 and continuous ECG

Comment
If IV access is not available.

Additional Information

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

---

sulfamethoxazole|trimethoprim

Standard concentrations for this medication are expressed in terms of mg/mL of trimethoprim component.

Administration Information

IV Intermittent Infusion

Standard Concentration
0.64 mg/mL

Administration Duration
01:00 (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
- Do not mix or flush with 0.9% sodium chloride
- Inspect solution for cloudiness or precipitation prior to use in all instances
- Do not mix with any other medication

IV Intermittent Infusion- Fluid Restriction

Standard Concentration
1.6 mg/mL

Administration Duration
01:00 (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.
- Do not mix or flush with 0.9% sodium chloride
- Inspect solution for cloudiness or precipitation prior to use in all instances
- Do not mix with any other medication

Compatibility Information

Compatible Solutions
5% Dextrose in Water (D5W)

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tacrolimus

Reserved/Restricted : Nephrology, Immunology, Gastroenterology, Hematology-Oncology

Go to IWK Hazardous Drug Classification

Administration Information

IV Continuous Infusion

Standard Concentration
10 micrograms/mL

Comment
Tacrolimus injection has been shown to adsorb to polyvinyl chloride (PVC) containers possibly resulting in decreased delivery of the drug. In addition, surfactants (castor oil derivatives) contained in these products may leach the plasticizer, diethylhexyl phthalate (DEHP), which is a known hepatotoxin, from PVC apparatus.

- All premixed IV solutions supplied by Supply and Distribution are in PVC bags and therefore should NOT be used. Do NOT mix in syringe.
- ONLY use non-PVC bags for mixing Bag, Empty TPN (ExactaMix) EVA 250 mL. Stores Item # 103455 and low-sorbing IV administration sets (Infusomat® Non- absorbing Administration Set. Stores Item #161806)

For continuous infusion of tacrolimus:

- Spike bag with non-PVC tubing (Infusomat® Space Pump Low Adsorption Set).
- Prime the line with the solution containing tacrolimus. Prime volume is ~25 mL.
- Hang new bag when container is almost empty or minimally every 24 hours.
- The administration set must be changed every 24 hours.
  NOTE: Gently mix well to disperse evenly in solution upon mixing and just prior to starting the infusion.

IV Intermittent Infusion

Standard Concentration
0.01 mg/mL

Comment
Note: 10 micrograms/mL = 0.01 mg/mL

Tacrolimus injection has been shown to adsorb to polyvinyl chloride (PVC) containers possibly resulting in decreased delivery of the drug. In addition, surfactants (castor oil derivatives) contained in these products may leach the plasticizer, diethylhexyl phthalate (DEHP), which is a known hepatotoxin, from PVC apparatus.

- All premixed IV solutions supplied by Supply and Distribution are in PVC bags and therefore should NOT be used. Do NOT mix in syringe.
- ONLY use non-PVC bags for mixing Bag, Empty TPN (ExactaMix) EVA 250 mL. Stores Item # 103455 and low-sorbing IV administration sets (Infusomat® Non- absorbing Administration Set. Stores Item #161806)

Compatibility Information

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

---

temsirolimus

HIGH ALERT
Reserved/Restricted : Hematology/Oncology

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
00:30 (hh:mm)

Comment
DEHP-free and PVC free, low-sorbing (polyethylene lined) tubing set and bag are required for administration

---

thiamine

Administration Information

IV Direct

Standard Concentration
10 mg/mL

Administration Duration
00:02 (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)

thiosulfate sodium

Reserved/Restricted : Hematology-Oncology

FILTER 0.22 micron in-line filter
Go to IWK Regional Poison Centre Provincial Antidote Kit for information on antidote administration

Administration Information

IV Intermittent Infusion

Standard Concentration
125 mg/mL

Administration Duration
00:15 (hh:mm)

Central Line PREFERRED

Comment

- Use within 4 hours of preparation

Compatibility Information

Compatible Solutions
Sterile Water for Injection (SWI)

tobramycin

Administration Information

IV Intermittent Infusion

Standard Concentration
10 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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tocilizumab

Reserved/Restricted : Rheumatology, Hematology/Oncology

Administration Information

IV Intermittent Infusion

Standard Concentration
8 mg/mL

Administration Duration
01:00 (hh:mm)

Monitoring
As per clinical order set IWK TOPE

Compatibility Information

Compatible Solutions
0.9% Sodium Chloride (NaCl)

Additional Information

Comments
- Mix gently- do not shake.
- Allow diluted solution to come to room temperature before administration

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topotecan

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology-Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

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.

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tranexamic acid

Administration Information

IV Direct

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

Administration Duration
00:05 (hh:mm)

Maximum Rate of Administration
100 mg/min

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

IV Intermittent Infusion

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

Administration Duration
00:20 (hh:mm)

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

IV Continuous Infusion

Standard Concentration
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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ustekinumab

Reserved/Restricted : Dermatology, Gastroenterology, Rheumatology. Note: Patient provides own medication

FILTER 0.22 micron in-line filter

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)

Comment

- Do not infuse with other medication

Compatibility Information

Compatible Solutions
0.45% Sodium Chloride (NaCl), 0.9% Sodium Chloride (NaCl)

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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.

IV Intermittent Infusion- Doses 501 to 900 mg

Standard Concentration
5 mg/mL

Administration Duration
01:30 (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.

IV Intermittent Infusion- Doses greater than 900 mg

Standard Concentration
5 mg/mL

Administration Duration
02:00 (hh:mm)

Maximum Rate of Administration
10 mg/min

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.

IV Intermittent Infusion- Doses less than or equal to 500 mg, PICU FLUID RESTRICTED

Standard Concentration
10 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.

Comment
Pharmacy does not prepare

IV Intermittent Infusion- Doses 501 to 900 mg, PICU FLUID RESTRICTED

Standard Concentration
10 mg/mL

Administration Duration
01:30 (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.

Comment
Pharmacy does not prepare

IV Intermittent Infusion- Doses greater than 900 mg, PICU FLUID RESTRICTED

Standard Concentration
10 mg/mL

Administration Duration
02:00 (hh:mm)

Maximum Rate of Administration
10 mg/min

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
Pharmacy does not prepare

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 - Shock/GI Hemorrhage OR as prescribed for Cardiac Surgery Patients

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 - Shock/GI Hemorrhage

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.

IV Continuous Infusion - Central Diabetes Insipidus

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.

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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vedolizumab

Reserved/Restricted : Gastroenterology. Note: Patient provides own medication

- Let vial sit for 20 minutes after reconstitution. Once dissolved, gently invert 3 times

Administration Information

IV Intermittent Infusion

Standard Concentration
1.2 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK VEDO

Compatibility Information

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

Additional Information

Potential Hazards of Administration
- Infusion related reactions may include anaphylaxis, hypersensitivity reactions.

---

verapamil

HIGH ALERT

Administration Information

IV Direct

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

Administration Duration
00:02 (hh:mm)

Monitoring
Level 3: Level 2 and continuous ECG

Compatibility Information

Compatible Solutions

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

vinBLAStine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology-Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
00:15 (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.

vinCRIStine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology-Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

Administration Duration
00:15 (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.

vinorelbine

HIGH ALERT, **EXTRAVASATION RISK / IRRITANT**
Reserved/Restricted : Hematology/Oncology

For information on extravasation management, please refer to Children's Oncology Group (COG) guidance. 2015 COG guidance is accessible here, however more recent guidelines may be found on COG website (login required)

Provided ready to administer by IWK Pharmacy

Administration Information

IV Intermittent Infusion

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.

Comment
Flush with 75 to 125 mL of 0.9% NaCl over 15-60 min.

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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zoledronic acid

Administration Information

IV Intermittent Infusion

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

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK PAIN

Comment
Administer as a single IV solution separate line from all other medications

IV Intermittent Infusion- Using 4 mg/5 mL vial

Standard Concentration
0.05 mg/mL

Administration Duration
00:30 (hh:mm)

Monitoring
As per clinical order set IWK PAIN

Comment
Administer as a single IV solution separate line from all other medications

Compatibility Information

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