

Sapphire Pump Pocket Guide

Contents

Amiodarone - (VT with pulse).....	2
Calcium Chloride - (Reverse CA blocker OD, reverse hypotension after Diltiazem and Mag use, after second unit of blood)	2
Calcium Gluconate - (Hydrofluoric Acid Exposure)	3
Cyanokit.....	3
Dextrose 10% - (Hypoglycemia).....	4
Diltiazem - (A-Fib with RVR – Initial 5-10mg Bolus).....	4
Epinephrine (Bradycardia)	5
Epinephrine - (Anaphylaxis/shock)	5
Lactated Ringers	5
Magnesium sulfate (Asthma/CHF).....	6
Magnesium sulfate (Eclamptic seizures).....	6
Magnesium sulfate VF/VF.....	6
Nitroglycerin – SCAPE	7
Norepinephrine – Shock	7
Sodium bicarbonate – Acidosis, CA Blocker OD, Hyperkalemia	8
Tranexamic acid – Hemorrhagic Shock.....	8
Amiodarone – Pediatric V-Tach with a pulse.....	9
Lactated Ringers – Pediatric Bolus	10
Calcium chloride – Pediatric all indications.....	10
Cyanokit – Pediatric.....	11
Calcium GLUCONATE – Pediatric (All indications)	12
Dextrose (10%) – Pediatric (Hypoglycemia)	13
Epinephrine – Pediatric (Shock – Hypotension).....	13
Magnesium Sulfate – Pediatric – Eclamptic seizures	14
Magnesium Sulfate – Pediatric – Asthma	14
Magnesium Sulfate – Pediatric – VT/VF/Torsade’s.....	15
Sodium Bicarbonate – Pediatrics less than 1 year old – Acidosis, Hyperkalemia, NA channel blocker OD	16
Sodium Bicarbonate – Pediatrics age 1 or older – Acidosis, Hyperkalemia, NA channel blocker OD	17
Tranexamic Acid (TXA) – Pediatrics 5-11 years old – Hemorrhagic Shock.....	17

ADULT

Amiodarone- (VT with pulse)

Bolus required – No

Priming method – Pump

Medication label needed – Yes

- Direction
 - Mix 150mg of medication into 100mL bag and spike with IV tubing
 - Attach Cassette to pump and turn pump on
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish.
 - Select “New infusion”
 - Type “A” then find and select “Amiodarone”
 - VTBI - 100mL
 - Dose Rate - Enter # to the right of range
 - Time auto populates – 10 minutes
 - Start Infusion
-

Calcium Chloride- (Reverse CA blocker OD, reverse hypotension after Diltiazem and Mag use, after second unit of blood)

Bolus required – No

Priming method – Pump

Medication label needed – Yes

- Direction
 - Mix 1g (10mL) of calcium chloride into a 100mL bag and spike with IV tubing
 - Attach cassette to pump and turn the pump on
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish.
 - Choose “Preset Programs” and select “CA CHLORIDE”
 - Start Infusion
(Infusion should default to 6 minutes – This is correct!)

Calcium Gluconate- (Hydrofluoric Acid Exposure)

Bolus required – No

Priming method – Pump

Medication label needed – No

- Direction
 - Spike the vial using IV pump tubing and open drip chamber vent
 - Attach cassette to pump and turn pump on
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish.
 - Choose “New infusion”
 - Type “C” then find and select “Ca+ Gluconate HF Exp 3g/5min”
 - VTBI - 30mL
 - Dose Rate - Enter # to the right of the range
 - Time auto populates – 5 minutes
 - Start Infusion
-

Cyanokit

Bolus required – No

Priming method – Pump

Medication label needed – No

- Direction
 - Reconstitute the medication with 200mL of dilutant
 - Invert vial gently until fully mixed, do not shake
 - Spike the glass vial with IV pump tubing and open the drip chamber vent
 - Attach cassette to pump and turn pump on
 - Pump is in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New infusion”
 - Type “CY” then find and select “Cyanokit 5g/200mL”
 - VTBI - 200mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 15 minutes
 - Start Infusion

Dextrose 10%- (Hypoglycemia)

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Spike bag of D10% with IV pump tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach Cassette and turn the pump on
 - Pump is in “Adult” mode
 - Choose “PreSet Programs” and select “D10 5g BOLUS”
 - Start Infusion
-

Diltiazem- (A-Fib with RVR – Initial 5-10mg Bolus)

Bolus required – Yes

Priming method – Gravity

Medication label needed – No

- Direction
 - Reconstitute medication in 100mL of dilutant and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn the pump on
 - Pump is in “Adult” mode
 - Choose “New infusion”
 - Type “D” then find and select “Diltiazem 5mg/2min Repeat x1 PRN”
 - VTBI - 100mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 20dd:20hh, this is okay
 - Start Infusion
 - Select “Bolus” function in bottom left
 - Bolus amount – Enter # to the right of the range
 - Press “OK” to start Bolus
 - Repeat Bolus X1 if necessary
 - Consider moving to 0.25mg/kg dose if patients’ condition does not improve

Epinephrine (Bradycardia)

Bolus required – No

Priming method – Gravity

Medication label needed – Yes

- Direction
 - Mix 1mg Epinephrine into 100mL bag and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn the pump on
 - Pump in “Adult” mode
 - Chose “PreSet Programs” and select “EPI BRADY”
 - Start Infusion (Begins at 2mcg/min)
-

Epinephrine- (Anaphylaxis/shock)

Bolus required – No

Priming method – Gravity

Medication label needed – Yes

- Direction
 - Mix 1mg Epinephrine in 100mL bag and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn the pump on
 - Pump in “Adult” mode
 - Chose “PreSet Programs” and select “EPI ANAPHYLAX”
 - Start Infusion
 - Recheck BP after 5 minutes, if still below 90mmhg systolic then select rate and increase to 2mL/min
-

Lactated Ringers

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Spike with IV pump tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Chose “PreSet Programs” and select “LR Bolus 250mL”
 - Start Infusion

Magnesium sulfate (Asthma/CHF)

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed medication bag (4g/100mL) and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Choose “PreSet Programs” and select “MAG ASTHMA”
 - Start Infusion
-

Magnesium sulfate (Eclamptic seizures)

Bolus required – No

Priming method – Pump

Medication label needed – No

- Direction
 - Open premixed medication bag (4g/100mL) and spike with IV tubing
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “PreSet Programs” and select “MAG SEIZURES”
 - Start Infusion
-

Magnesium sulfate VF/VF

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed medication bag (4g/100mL) and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Choose “PreSet Programs” and select “MAG VF/VT”
 - Start Infusion

Nitroglycerin – SCAPE

Bolus required – Yes

Priming method – Gravity

Medication label needed – Yes

- Direction
 - Draw up 2mL of Nitroglycerin and mix medication into 100mL bag, then spike bag with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Chose “PreSet Programs” then select “NITROGLYCERIN”
 - Start Infusion
 - Select “Bolus” function in bottom left of screen
 - Amount – Enter # to the right of the range
 - Dose rate - Enter # to the right of the range
 - Time auto populates - 2 minutes
 - Start Bolus
 - Titrate up or down based on BP goals by 5mcg increments to a max of 80mcg/min. Goal is 20% reduction in SBP.
-

Norepinephrine – Shock

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed medication bag and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Pump in “Adult” mode
 - Choose “PreSet Programs” and select “NOREPI SHOCK”
 - Start Infusion
 - Titrate up or down by 10mcg/min increments to maintain systolic BP between 90-140mmHg

Sodium bicarbonate – Acidosis, CA Blocker OD, Hyperkalemia

Bolus required – No

Priming method – Pump

Medication label needed – No

- Direction
 - Spike Vial of Sodium Bicarbonate with IV pump tubing
 - Attach the cassette and turn on pump
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Type in “S” then find and select “Sodium Bicarb 50mEq 5min Bolus”
 - Verify concentration is correct (50mEq/50mL)
 - VTBI – 50mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 5 minutes
 - Start Infusion
-

Tranexamic acid – Hemorrhagic Shock

Bolus required – No

Priming method – Pump

Medication label needed – Yes

- Direction
 - Draw up 1g of TXA and mix into 100mL bag then spike with IV tubing
 - Attach cassette and turn on pump
 - Pump in “Adult” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Type in “T” then find and select “TXA 1g/100mL – 6 min”
 - VTBI – 100mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 6 minutes – This is correct!
 - Start Infusion

PEDIATRIC

Amiodarone – Pediatric V-Tach with a pulse

Bolus required – Yes

Priming method – Gravity

Medication label needed – Yes

- Direction
 - Mix 150mg of Amiodarone into 100mL bag and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach the cassette and turn on pump
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Enter “A” then find and select “Amio Ped 5mg/kg VT W/ Pulse over 10 min”
 - Enter the patient’s weight in KG
 - VTBI – 100mL
 - Dose rate - # to the right of the range
 - Time auto populates – 20 days :20 hours, this is okay!
 - Start infusion
 - Select “Bolus” function at the bottom left
 - Bolus Amount – Enter # to the right of the range
 - Dose Rate – Enter # to the right of the range
 - Time auto populates - 10 minutes
 - Start Bolus

Lactated Ringers – Pediatric Bolus

Bolus required – Yes

Priming method – Gravity

Medication label needed – No

- Direction
 - Spike a bag of LR with IV pump tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach the cassette and turn on pump
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Type “L” then find and select “Lactated ringers – Ped 10-20mL/kg”
 - VTBI – 1000mL
 - Dose rate - # to the right of the range
 - Time auto populates – 1 hour, this is okay!
 - Start Infusion
 - Select “Bolus” function in the bottom left
 - Enter patients’ weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate – Enter # to the right of the range
 - Time auto populates based on weight
 - Start Bolus

Calcium chloride – Pediatric all indications

Bolus required – Yes

Priming method – Pump

Medication label needed – Yes

- Direction
 - Mix 1g Calcium Chloride into 100mL bag and spike with IV tubing
 - Attach cassette to pump and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Enter “C” then find and select “CaCl – Ped 20/kg at 50mg/min”
 - VTBI – 110mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 22 days: 22 hours, this is okay!
 - Start Infusion
 - Select “Bolus” function at bottom left of screen
 - Enter patients’ weight in KG
 - Enter Bolus Amount – Enter # to the right of the range
 - Enter Bolus Rate – Enter # to the right of the range
 - Time auto populates based on weight
 - Star Bolus

Cyanokit – Pediatric

Bolus required – Yes

Priming method – Pump

Medication label needed – No

- Direction
 - Reconstitute medication as indicated on packaging (200mL dilutant) and spike with IV tubing
 - OPEN DRIP CHAMBER VENT
 - Attach cassette to pump and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Enter “C” then find and select “Cyanokit – Ped 70mg/kg – 15mL/min”
 - VTBI – 200mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 16 days: 16 hours, this is okay!
 - Start Infusion
 - Select “Bolus” function in bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate – Enter # to the right of the range
 - Time auto populates based on patient weight
 - Start Bolus

Calcium GLUCONATE – Pediatric (All indications)

Bolus required – Yes

Priming method – Pump

Medication label needed – No

- Direction
 - Medication comes in 5000mg/50mL in a plastic vial, spike this vial directly with IV pump tubing
 - OPEN DRIP CHAMBER VENT
 - Attach cassette and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Type “C” then find and select “CaGluconate HF Exp Peds 60mg/kg-5 min”
 - VTBI – 50mL
 - Dose rate – Enter # to the right of the range
 - Time auto populates – 10 days: 10 hours, this is okay!
 - Start Infusion
 - Select “Bolus” function in bottom left
 - Enter patients’ weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate - Enter # to the right of the range
 - Time auto populates – 5 minutes
 - Start Bolus

Dextrose (10%) – Pediatric (Hypoglycemia)

Bolus required – Yes

Priming method – Gravity

Medication label needed – No

- Direction
 - Spike bag of D10% with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Insert cassette into the pump and turn pump on
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Enter “D” then find and select “Dextrose 10%”
 - FYI – There are two doses, one for neonates and one for everyone else, choose the appropriate one for your patient
 - VTBI – 250mL
 - Dose rate - Enter # to the **LEFT** of the range
 - Time auto populates - >99 days, this is okay!
 - Start Infusion
 - Select the “Bolus” function at the bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount – Enter # to the **LEFT** of the range
 - Dose rate – Enter # to the **RIGHT** of the range
 - Time auto populates based on patients’ weight
 - Start Bolus

Epinephrine – Pediatric (Shock – Hypotension)

Bolus required – No

Priming method – Gravity

Medication label needed – Yes

- Direction
 - Mix 1mg Epinephrine into a 100mL bag and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Enter “E” then find and select “Epi Shock Peds 0.1-0.5 mcg/kg/min”
 - Enter the patient’s weight in KG
 - VTBI – 100mL
 - Dose rate – Enter # to the **LEFT** of the range
 - Time auto populates based on patient weight
 - Start Infusion
 - BP q 5 minutes and titrate to maintain the patients age specific blood pressure by adding increments of 0.1mcg/kg/min if necessary

Magnesium Sulfate – Pediatric – Eclamptic seizures

Bolus required – No

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed bag of Mag sulfate (4g/100mL) and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette and turn pump on
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Type “M” then find and select “Mag Ped (OB) Seizure 4g over 10 min”
 - VTBI – 100mL
 - Dose Rate - Enter # to the right of the range
 - Time auto populates – 10 minutes
 - Start Infusion and monitor blood pressure closely
-

Magnesium Sulfate – Pediatric – Asthma

Bolus required – Yes

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed bag of Mag sulfate (4g/100mL) and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette to the pump and turn pump on
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Type “M” then find and select “Mag Peds Asthma/HF 50mg/kg over 20 min”
 - VTBI – 100mL
 - Dose Rate – Enter # to the right of the range
 - Time auto populates – 20 days : 20 hours, this is okay!
 - Start Infusion
 - Select the “Bolus” function on the bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate – Enter # to the right of the range
 - Time auto populates – 20 minutes
 - Start Bolus and monitor Blood pressure closely

Magnesium Sulfate – Pediatric – VT/VF/Torsade's

Bolus required – Yes

Priming method – Gravity

Medication label needed – No

- Direction
 - Open premixed bag of Mag sulfate (4g/100mL) and spike with IV tubing
 - PRIME TUBING VIA GRAVITY – AIR ALARM NOT ACTIVE – BE AWARE OF EMBOLIS
 - Attach cassette to the pump and turn pump on
 - Place pump in “Peds” mode
 - Choose “New Infusion”
 - Type “M” then find and select “Mag Peds VT/VF 25mg/kg over 2 min”
 - VTBI – 100mL
 - Dose Rate – Enter # to the right of the range
 - Time auto populates – 20 days : 20 hours, this is okay!
 - Start Infusion
 - Select the “Bolus” function on the bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount - Enter # to the right of the range
 - Bolus Rate - Enter # to the right of the range
 - Time auto populates – 2 minutes
 - Start Bolus

Sodium Bicarbonate – Pediatrics less than 1 year old – Acidosis, Hyperkalemia, NA channel blocker OD

Bolus required – Yes

Priming method – Pump

Medication label needed – No

- Direction
 - Draw up 25mL from Sodium bicarbonate vial and waste it
 - Draw up 25mL of LR and inject into Sodium Bicarb vial (1:1 dilution)
 - Spike diluted vial using IV pump tubing
 - OPEN DRIP CHAMBER VENT
 - Attach cassette to pump and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Type “S” then find and select “Sodium Bicarbonate”
 - VTBI – 50mL
 - Dose Rate - Enter # to the right of the range
 - Start Infusion
 - Select the “Bolus” function on the bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate – Enter # to the right of the range
 - Time auto populates – 5 minutes
 - Start Bolus

Sodium Bicarbonate – Pediatrics age 1 or older – Acidosis, Hyperkalemia, NA channel blocker OD

Bolus required – Yes

Priming method – Pump

Medication label needed – No

- Direction
 - Spike 50mEq vial using IV pump tubing
 - OPEN DRIP CHAMBER VENT
 - Attach cassette to pump and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Choose “New Infusion”
 - Type “S” then find and select “Sodium Bicarb Peds 1mEq/kg-5 min”
 - VTBI – 50mL
 - Dose Rate - Enter # to the right of the range
 - Time auto populates – 10 days : 10 hours, this is okay!
 - Start Infusion
 - Select the “Bolus” function on the bottom left
 - Enter the patient’s weight in KG
 - Bolus Amount – Enter # to the right of the range
 - Bolus Rate – Enter # to the right of the range
 - Time auto populates – 5 minutes
 - Start Bolus
-

Tranexamic Acid (TXA) – Pediatrics 5-11 years old – Hemorrhagic Shock

Bolus required – No

Priming method – Pump

Medication label needed – Yes

- Direction
 - Draw up 500mg of TXA and put it into a 100mL bag, spike with IV tubing
 - Attach cassette and turn on pump
 - Place pump in “Peds” mode
 - Select “PRIME” in the bottom left and wait for the pump to finish
 - Chose “New Infusion”
 - Type “T” then find and select “TXA 5-11 Years Old 500mg/100mL – 6 min”
 - VTBI – 100mL
 - Rate - Enter # to the right of the range
 - Time auto populates – 6 minutes – This is correct!
 - Start Infusion