

Maine EMS December 1, 2021 Protocols Formulary V2.1 - PLEASE NOTE: this document is not a substitute for the Maine EMS Protocols. For Most UP TO DATE information regarding the Maine EMS formulary, please refer to the Maine EMS Protocols

Medication	Protocol	EMR	EMT	AEMT	Paramedic	Adult Dosing	Pediatric Dosing	OLMC Req'd?	Medication Notes	Suggested Par Level	PAR LEVEL COVERAGE	Estimated Cost (please note, cost will vary depending on distributor and availability - per Lexicomp accessed Feb 2022)	Service Level Required
Acetaminophen (chewable tabs)	Universal Pain Management (Green 21)		✓	✓	✓	10-15 mg/kg PO (rounded to the nearest 40-80 mg) (MAX single dose 1000 mg)	Chart dosing in protocol	N		(1) 30 count bottle of 80 mg chewable tablets	1 patient	Bottle \$1.47	EMT, AEMT, & Paramedic Services
Acetaminophen IV	Universal Pain Management (Green 21)			✓	✓	Over 70 kg: AEMT/Paramedic 1000 mg over 15 minutes Under 70 kg: (Paramedic only) 12.5 mg/kg IV (MAX single dose 625 mg over 15 minutes)	Under 70 kg: (Paramedic only) 12.5 mg/kg IV (MAX single dose 625 mg) over 15 minutes	N	Administer, undiluted from original container, over 10-15 minutes. If product comes in a glass bottle, vented tubing is required. Doses less than 1000 mg require a pump.	(1) 1000 mg/100 ml bottle	1 patient	Varies- \$11- \$50 per 1000mg/100ml	AEMT & Paramedic Services
Activated Charcoal (without sorbitol)	Poisoning / Overdose (Yellow 1)				✓	1 gram/kg PO		Y		(4) 25 gram tubes	1 patient up to 100 kg	100gm tube \$12.32	Paramedic Services
Adenosine	Wide Complex Tachycardia (Red 19)				✓	6 mg IV rapid bolus; may repeat x2 at 12 mg IV rapid bolus		N	Administer, undiluted via rapidIV push at centrally located peripheral IV. Follow immediately with 20 ml flush.	(5) 6 mg/2 ml vials	1 patient occurrence using 6mg/12mg/12mg	6mg/2ml vial \$1.60	Paramedic Services
	Narrow Complex Tachycardia (Red 18)				✓	6 mg IV rapid bolus; may repeat x2 at 12 mg IV rapid bolus	Under 50 kg: 0.1 mg/kg IV rapid bolus; may repeat once at 0.2 mg/kg IV rapid bolus	N	Administer, undiluted via rapidIV push at centrally located peripheral IV. Follow immediately with 20ml flush.				
Albuterol	Allergy / Anaphylaxis (Gold 1)				✓	2.5 mg by nebulization	2.5 mg by nebulization	N	Use 3 mL premix <u>OR</u> 0.5 mL of 0.5% solution mixed in 2.5 mL of normal saline				
	Respiratory Distress with Bronchospasm (Blue 7)				✓	2.5 mg by nebulization	2.5 mg by nebulization	N	Use 3 mL premix <u>OR</u> 0.5 mL of 0.5% solution mixed in 2.5 mL of normal saline	(5) 0.083% 2.5 ml bullets	5 administrations	0.083% per 2.5ml neb \$0.15	Paramedic Services
	Hyperkalemia (Red 26)				✓	15 mg by nebulization		N	Use premix <u>OR</u> 0.5% solution mixed in normal saline				
Amiodarone	Ventricular Fibrillation / Ventricular Tachycardia (Red 8, Red 12)				✓	300 mg IV/IO; may consider additional 150 mg IV/IO once	Under 25 kg: 2.5 mg by nebulization Over 25 kg: 5 mg by nebulization	N	Administer undiluted via rapid push				
	Tachycardia - Wide Complex (Red 19)				✓	150 mg IV/IO	5 mg/kg IV/IO; may repeat every 3-5 minutes to total of 15 mg/kg. (MAX single dose 300 mg)	N		(4) 150 mg/ml vials	1 code bolus, 1 2nd dose, & 1 infusion mix	150mg/3ml vial \$2.23	Paramedic Services
	Unstable Tachycardia - Wide Complex (Red 17)				✓	Infusion dose per OLMC		Y					
	Post Cardiac Arrest (Red 9)				✓	Infusion/bolus dose per OLMC		Y	150 mg mixed in 100 ml D5W				
Aspirin (chewable tabs)	Chest Pain - Suspected Cardiac Origin (Red 2)		✓	✓	✓	324 mg PO		N		(4) 81 mg tablets	1 patient	81mg unit dose \$0.04	EMT, AEMT, & Paramedic Services
Atropine	Bradycardia (Red 12, Red 20)				✓	1 mg IV/IO; repeat every 3 - 5 minutes (MAX cumulative total of 3 mg)	0.02 mg/kg IV/IO; may repeat once (MIN single dose: 0.1 mg, MAX single dose 0.5 mg)	N	Administer undiluted by rapidIV/IO push; slow injection may result in paradoxical bradycardia	(3) 1 mg syringe or vial *Note- 10ml product cannot be used for IM administration.	1 single dose	1mg/10ml syringe \$4.11	Paramedic Services
	Nerve Agent / Organophosphate / Carbamate Poisoning (Yellow 7)				✓	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils 2 mg IV/IO; may repeat every 5 minutes Apnea, seizure, unconsciousness or flaccid paralysis 5 mg IV/IO; may repeat up to 3 times, every 5 minutes	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils Under 1 year: 0.2 mg IV/IO; may repeat every 5 minutes Over 1 year: 2 mg IV/IO; may repeat every 5 minutes Apnea, seizure, unconsciousness or flaccid paralysis Under 1 year: 0.2 mg IV/IO; may repeat every 5 minutes Over 1 year: 2 mg IV/IO; may repeat every 5 minutes	N	Administer undiluted by rapidIV/IO push; slow injection may result in paradoxical bradycardia				
Calcium Gluconate	Hyperkalemia with ECG Changes (Red 26)				✓	2 grams IV/IO over 10-20 minutes	60 mg/kg IV/IO over 10-20 minutes (MAX single dose 2 grams)	N	Mix in 50-100 ml NS or D5W and administer over 10-20 minutes	(3 to 6) 1 gram/10 ml vials OR premixed 1 gram/50 ml IV bag	up to 2 code doses or 2 doses for CCB OD	1gm/10ml vial \$6.67 premixed 1gm/50ml bag \$6.55	Paramedic Services
	Hyperkalemia with Cardiac Arrest (Red 9, Red 12, Red 27)				✓	3 grams IV/IO over 1 minute; may repeat in 10 minutes	60 mg/kg IV/IO over 1 minute (MAX single dose 3 grams); repeat in 10 minutes	N	1 gram/10 ml concentration. Administer over 1 minute				
	Calcium Channel or Beta Blocker Overdose (Yellow 2)				✓	60 mg/kg IV over 5-10 minutes (MAX single dose 3 grams); may repeat every 10-20 min for 3-4 additional doses	60 mg/kg IV over 30-60 minutes (MAX single dose 3 grams); may repeat every 10-20 min for 3-4 additional doses	N	1 gram/10 ml concentration. Administer over 5-10 minutes				
Ceftriaxone	Open Fractures (Green 29)				✓	2 grams in 50-100 ml of NS or D5W over 10 minutes	Under 12 years: 75 mg/kg IV (MAX single dose 2 grams) in 50-100 ml of NS or D5W over 10 minutes Over 12 years: 2 grams in 50-100 ml of NS or D5W over 10 minutes	N	Add to 50-100 ml NS or D5W. Administer over 10 minutes.	(2) 1 gram vials	1 patient		Paramedic Services
Cyanokit	Cyanide / CO Exposure (Yellow 8)				✓	5 grams IV; may repeat once	Under 30 kg: 2.5 grams IV Over 30 kg: 70 mg/kg IV	N		Optional	Optional		Paramedic Services (Optional)
Dexamethasone	Respiratory Distress with Bronchospasm (Blue 7)				✓	10 mg IV/IO/IM/PO	0.6 mg/kg IV/IO/IM/PO (MAX single dose 10 mg)	N	Administer undiluted over at least one minute. May also be diluted in 50 ml D5W or NS and administered over 5-15 minutes	(1) 10 mg/ml vial	1 dose	10mg/1ml \$0.83	Paramedic Services
	Respiratory Distress with Inspiratory Stridor (Pink 2)				✓		0.6 mg/kg IV/IO/IM/PO (MAX single dose 10 mg)	N					
	Adrenal Insufficiency with Medical Shock (Gold 15)				✓	10 mg IV/IO/IM	0.6 mg/kg IV/IO/IM (MAX single dose 10 mg)	N					

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Dextrose - D10	Diabetic / Hypoglycemic Emergencies (Gold 6)			✓	✓	250 mL IV; paramedic may repeat with OLMC	Under 40 kg: 5 ml/kg IV; paramedic may repeat with OLMC Over 40 kg: 250 ml IV; paramedic may repeat with OLMC	N	Administer undiluted at a maximum rate of 200mg/kg over 1 minute. Concentrated solutions (e.g. anything greater than 5%) may be an irritant or vesicant. Ensure proper catheter placement prior to and during IV infusion.	(2) 250 ml premixed IV bag	2 dose	250ml bag \$1.82	AEMT & Paramedic Services
Dextrose - D50	Diabetic / Hypoglycemic Emergencies (Gold 6)			✓	✓	25 grams IV (50 mL of 50% solution); paramedic may repeat with OLMC	/	N	Administer undiluted at a maximum rate of 200 mg/kg over 1 minute. Concentrated solutions (e.g. anything greater than 5%) may be an irritant or vesicant. Ensure proper catheter placement prior to and during IV infusion.	(2) 25 grams/50 ml syringe or vial	2 doses	50ml vial/syringe \$6.54	AEMT & Paramedic Services
Diphenhydramine	Allergy / Anaphylaxis (Gold 1)			✓	✓	25-50 mg IV/IO/IM	1-2 mg/kg IV/IO/IM (MAX single dose 50 mg)	N	Administer at a rate <= 25 mg/minute	(1) 50 mg/ml syringe or vial	1-2 doses	50mg/1ml vial \$0.54	Paramedic Services
	Dystonic Reaction (Yellow 2)			✓	✓	25-50 mg IV/IM	1-2 mg/kg IV/IM (MAX single dose 50 mg)	N	Administer at a rate <= 25 mg/minute				
Epinephrine 1mg/ml	Respiratory Distress with Bronchospasm (Blue 7)		✓	✓	✓	0.3 mg of 1 mg/ml IM every 20 minutes	Under 25 kg: 0.15 mg of 1mg/ml IM every 20 minutes Over 25 kg: 0.3 mg of 1mg/ml IM every 20 minutes	Y - EMT/AEMT N - Medic	Administer undiluted using 1 mg/ml concentration	(6) 1 mg/1 ml ampule or vial	18 doses (also serves as b/t to make additional 1mg/10ml)	1mg/1ml amp/vial \$8.21	EMT, AEMT, & Paramedic Services
	Allergy / Anaphylaxis (Gold 1)		✓	✓	✓	0.3 mg of 1 mg/ml IM; may repeat every 5-15 minutes	Under 25 kg: 0.15 mg of 1mg/ml IM; may repeat every 5-15 minutes Over 25 kg: 0.3 mg of 1mg/ml IM; may repeat every 5-15 minutes	N	Administer undiluted using 1 mg/ml concentration				
Epinephrine 1mg/10 ml	Cardiac Arrest (Red 8, Red 12, Pink 7)			✓	✓	1 mg of 1 mg/10 ml IV/IO every 3-5 minutes	0.01 mg/kg IV/IO 1 mg/10 ml; repeat every 3-5 minutes (MAX single dose 1 mg)	N	Rapid push using 1 mg/10 ml concentration; flush with at least 10ml	(6) 1 mg/10 ml syringe or vial	6 doses (18 -30 minutes)	1mg/10ml syringe \$4.06	Paramedic Services
	Bradycardia (Red 12)			✓	✓	/	0.01 mg/kg IV/IO 1 mg/10 ml (MAX single dose 1 mg)	N	Rapid push using 1 mg/10 ml concentration; flush with at least 10ml				
Epinephrine Infusion	Allergy / Anaphylaxis (Gold 1)			✓	✓	Start at 0.05 mcg/kg/min. Titrate by 0.05 mcg/kg/min every 5 minutes to desired effect which may include resolution of bradycardia, SPB of > 90 mmHg and/or MAP > 65 mmHg. (Usual dose is 0.05-0.5 mcg/kg/min) (MAX dose is 0.5 mcg/kg/min)	Start at 0.05 mcg/kg/min. Titrate by 0.05 mcg/kg/min every 5 minutes to desired effect which may include resolution of bradycardia, SPB of > 90 mmHg and/or MAP > 65 mmHg. (Usual dose is 0.05-0.5 mcg/kg/min) (MAX dose is 0.5 mcg/kg/min)	Y	Add 1 mg/ml vial to 250 ml NS or D5W for final concentration of 4 mcg/ml. Must be infused via pump.	(1) 1 mg/ml ampule or vial	1 patient (this could also be covered in PAR level above)	1mg/1ml amp/vial \$8.21	Paramedic Services
	Bradycardia (Red 21)			✓	✓	Start at 0.05 mcg/kg/min. Titrate by 0.05 mcg/kg/min every 5 minutes to desired effect which may include resolution of bradycardia, SPB of > 90 mmHg and/or MAP > 65 mmHg. (Usual dose is 0.05-0.5 mcg/kg/min) (MAX dose is 0.5 mcg/kg/min)	Start at 0.05 mcg/kg/min. Titrate by 0.05 mcg/kg/min every 5 minutes to desired effect which may include resolution of bradycardia, SPB of > 90 mmHg and/or MAP > 65 mmHg. (Usual dose is 0.05-0.5 mcg/kg/min) (MAX dose is 0.5 mcg/kg/min)	N	Add 1 mg/ml vial to 250 ml NS or D5W for final concentration of 4 mcg/ml. Must be infused via pump.				
Epinephrine Nebulized	Allergy / Anaphylaxis (Gold 1)			✓	✓	1 mg (1 mg / ml) nebulized with 2 mL of NS	1 mg (1 mg / ml) nebulized with 2 mL of NS	N	Add 1 mg/ml to 2 ml NS.	(1) 1 mg/ml ampule or vial	1 dose (this could also be covered in PAR level above)	1mg/1ml amp/vial \$8.21	Paramedic Services
	Respiratory Distress with Inspiratory Stridor (Pink 2)			✓	✓	/	1 mL (1 mg/mL) nebulized with 2 mL of NS; may repeat with OLMC	N	Add 1 mg/ml to 2 ml NS.				
Racemic Epinephrine	Allergy / Anaphylaxis (Gold 1)			✓	✓	0.5 mL nebulized	/	N	2.25% solution diluted with 2.5 mL of NS	Optional	Optional	2.25% 0.5ml \$0.77 *stability very sensitive to temperature excursions above 77°F	Paramedic Services (Optional)
	Respiratory Distress with Inspiratory Stridor (Pink 2)			✓	✓	/	0.5 mL nebulized; may repeat with OLMC	N	2.25% solution diluted with 2.5 mL of NS				
Epinephrine Auto-injector	Allergy / Anaphylaxis (Gold 1)		✓	✓	✓	Epi Pen (0.3 mg); may repeat every 5-15 minutes	Under 25 kg: Epi Pen Jr (0.15 mg); may repeat every 5-15 minutes Over 25 kg: Epi Pen (0.3 mg); may repeat every 5-15 minutes	N		Optional	Optional	EpiPen Jr \$133.81, Adult \$133.81	EMT, AEMT, & Paramedic Services (Optional)
Fentanyl	Universal Pain Management (Green 22)			✓	✓	1 mcg/kg IV/IN/IM; may repeat every 5-10 minutes at 0.5-1.0 mcg/kg (MAX single dose 100 mcg) (MAX cumulative dose 5 mcg/kg)	/	N - with exceptions	IM: administer slowly over 1-2 minutes IV: Administer slowly over 1-2 minutes Rapid administration may result in muscle and chest wall rigidity, impaired ventilation or respiratory distress/arrest.	CONTROLLED SUBSTANCE - Refer to hospital contract	Depends on hospital contract	100mcg/2ml \$1.45	Paramedic Services
	Post ETT / BIAID Pain Control / Sedation (Blue 6)			✓	✓	0.5-1 mcg/kg IV/IO every 15 minutes (MAX cumulative dose 5 mcg/kg)	0.5-1 mcg/kg IV/IO every 15 minutes (MAX cumulative dose 5 mcg/kg)	N	IM: administer slowly over 1-2 minutes IV: Administer slowly over 1-2 minutes Rapid administration may result in muscle and chest wall rigidity, impaired ventilation or respiratory distress/arrest.				
	Chest Pain - Suspected Cardiac Origin (Red 2)			✓	✓	1 mcg/kg IV/IM/IN (MAX single dose 100 mcg)	/	N	IM: administer slowly over 1-2 minutes IV: Administer slowly over 1-2 minutes Rapid administration may result in muscle and chest wall rigidity, impaired ventilation or respiratory distress/arrest.				
	Pain Control Pre-Cardioversion / TCP (Red 17)			✓	✓	1 mcg/kg IV/IO/IM/IN (MAX single dose 100 mcg)	/	N	IM: administer slowly over 1-2 minutes IV: Administer slowly over 1-2 minutes Rapid administration may result in muscle and chest wall rigidity, impaired ventilation or respiratory distress/arrest.				

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Fentanyl	Abdominal Pain (Gold 18)				✓	1 mcg/kg IV/IN (MAX single dose 100 mcg); may repeat with OLMC		N	IV: Administer slowly over 1-2 minutes Rapid administration may result in muscle and chest wall rigidity, impaired ventilation or respiratory distress/arrest.	CONTROLLED SUBSTANCE - Refer to hospital contract	Depends on hospital contract	100mcg/2ml \$1.45	Paramedic Services
Glucagon	Diabetic / Hypoglycemic Emergencies (Gold 6)				✓	1 mg IM; paramedic may repeat with OLMC	Under 20 kg: 0.5 mg IM; paramedic may repeat with OLMC Over 20 kg: 1 mg IM; paramedic may repeat with OLMC	N	Must be reconstituted with provided diluent prior to administration	(1) 1 mg vial/kit	1 dose	1mg vial \$107.26	AEMT & Paramedic Services
	Allergy / Anaphylaxis -for patients taking Beta Blockers (Gold 1)				✓	1 mg IM		N	Must be reconstituted with provided diluent prior to administration				Paramedic Services
Glucose	Diabetic / Hypoglycemic Emergencies (Gold 6)	✓	✓	✓	✓	1 tube PO	1 tube PO	N	May also stock glucose tablets	(1) Tube	1 dose		EMT, AEMT, & Paramedic Services
Hemostatic Dressings	Hemorrhage (Green 15)	✓	✓	✓	✓	Packed in wound to achieve hemorrhage control	Packed in wound to achieve hemorrhage control	N		See Maine EMS Rules	N/A		EMR, EMT, AEMT, & Paramedic Services
Ipratropium Bromide / Albuterol Mix	Respiratory Distress with Bronchospasm (Blue 7)		✓	✓	✓	0.5 mg nebulized every 5 minutes; may repeat x2	Over 1 year: 0.5 mg nebulized every 5 minutes; may repeat x2 Under 1 year: do not use	N	0.5 mg Ipratropium Bromide and 2.5 mg Albuterol premixed	(5) 0.5 mg/2.5 mg 3 ml bullets	5 doses (25 minutes)	0.5mg/2.5ml (0.02%) \$0.19; Also supplied as Albuterol/Ipratropium 2.5mg/0.5mg per 3ml neb \$0.26	EMT, AEMT, & Paramedic Services
Ketamine	Post ETT / BIAID Pain Control / Sedation (Blue 6)				✓	0.2 mg/kg IV/IO; may repeat once in 5 minutes (MAX single dose 25 mg) OR 0.4 mg/kg IM; may repeat once in 10 minutes (MAX single dose 50 mg)		Y	IM: Administer deep into large muscle mass IV: Dilute calculated dose in 100 ml D5W or NS. Administer over 10 minutes via pump	CONTROLLED SUBSTANCE - Refer to hospital contract	Depends on hospital contract	100mg/ml 5ml vial \$6.51	Paramedic Services
	Anxiolysis In CPAP (Blue 10)				✓	0.2 mg/kg IV/IO; may repeat once in 5 minutes (MAX single dose 25 mg) over 10 minutes OR 0.4 mg/kg IM; may repeat once in 10 minutes (MAX single dose 50 mg)		Y	IM: Administer deep into large muscle mass IV: Dilute calculated dose in 100 ml D5W or NS. Administer over 10 minutes via pump				
	Universal Pain Control (Green 22)				✓	0.2 mg/kg IV over 10 minutes (MAX single dose 25mg); may repeat every 15 minutes as needed (MAX cumulative dose 1 mg/kg) OR 0.5 mg/kg IN (MAX single dose 25 mg); may repeat once at 0.25 mg/kg IN in 15 minutes as needed for pain		N - with exceptions	IV: Dilute calculated dose in 50-100 ml D5W or NS. Administer over 15-30 minutes				
	Agitation / Excited Delirium (Orange 5)				✓	Under 65 years: 4 mg/kg IM		Y	Administer deep into large muscle mass				
	Anxiety for Hospice Patients (Grey 7)				✓	0.5 mg/kg IN (MAX single dose 25 mg)		Y					
Lidocaine 2%	IO Pain with Infusion				✓	40 mg slow IO push over 3-4 minutes followed by 10 ml NS flush; may repeat with 20 mg with OLMC	0.5 mg/kg slow IO push over 3-4 minutes followed by 10 ml NS flush (MAX dose 40 mg); may repeat with 0.25 mg/kg with OLMC	N	Use 2% preservative free concentration	(4) 5 ml vials	5ml = 10mg	2% in 5ml vial \$1.12	Paramedic Services
Magnesium Sulfate	Respiratory Distress with Bronchospasm (Blue 7)				✓	2 grams IV/IO over 10 minutes	50 mg/kg IV/IO over 10 minutes (MAX dose of 2 grams)	N	Should not be given any faster than 150 mg/minute	8 gm (vial size may vary)	Need 8 grams for max dose	1gm/2ml vial \$1.02	Paramedic Services
	Seizures during Pregnancy (Gold 9)				✓	4 gm IV/IO over 10 minutes OR 8 grams IM (4 grams in each buttock)		N	IV: Should not be given any faster than 150 mg/minute				
	Tachycardia - Wide Complex / Torsades de Pointes (Red 8, Red 12, Red 19)				✓	2 grams IV/IO over 5 minutes	25-50 mg/kg IV/IO (MAX single dose 2 grams) over 10 minutes	N	Should not be given any faster than 150 mg/minute				
	Tricyclic Antidepressant Overdose (Yellow 2)				✓	2 grams IV/IO over 10 minutes	25-50 mg/kg IV/IO (MAX single dose 2 grams) over 10 minutes	N	Should not be given any faster than 150 mg/minute				
Mark-1 Auto injector	Nerve Agent / Organophosphate / Carbamate Poisoning (Yellow 7)	✓	✓	✓	✓	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils 1 atropine autoinjector IM; may repeat every 5 minutes Apnea, seizure, unconsciousness or flaccid paralysis 3 atropine autoinjectors; may repeat every 5 minutes	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils Under 1 year: 1 pediatric atropine autoinjector; may repeat every 5 minutes Over 1 year: 1 atropine autoinjector; may repeat every 5 minutes Apnea, seizure, unconsciousness or flaccid paralysis Under 1 year: 1 pediatric atropine autoinjector; may repeat every 5 minutes Over 1 year: 1 atropine autoinjector; may repeat every 5 minutes	N	Administer undiluted deep IM into large muscle	Optional	Optional		EMR, EMT, AEMT, & Paramedic Services (Optional)
Metoprolol	Tachycardia (Red 17)				✓	5 mg IV over 5 minutes; may repeat once		Y	Administer over 5 minutes	(1) 5 mg/5 ml vial	1 dose	5mg/5ml \$0.47	Paramedic Services

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Midazolam	Seizures (Gold 8)				✓	10 mg IM; repeat every 5 minutes until resolution of seizure (MAX IM cumulative total 20 mg) OR 5 mg IV/IO; repeat every 5 minutes until resolution of seizure (MAX IV/IO cumulative total 15 mg)	0.2 mg/kg IM (MAX single dose of 10 mg); repeat every 5 minutes at 0.6 mg/kg until resolution of seizure (MAX IM cumulative total of 20 mg) OR 0.1 mg/kg IV (MAX single dose of 5 mg); repeat every 5 minutes at 0.3 mg/kg until resolution of seizure (MAX IV cumulative dose of 15 mg)	N	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle IV/IO: Administer by slow injection over at least 2 minutes using a concentration < 5 mg/ml				
	Post ETT / BIAID Pain Control / Sedation (Blue 6)				✓	0.5 - 2.5 mg IV/IO; repeat every 5 minutes; may repeat x 3 (MAX IV/IO cumulative dose of 5 mg) OR 1-5 mg IM; repeat every 5 minutes; may repeat x 3 (MAX IM cumulative dose of 10 mg)	6 months-12 years: 0.05 mg/kg IV/IO every 5 minutes (MAX IV/IO cumulative dose of 5 mg) OR 6 months-12 years: 0.1 mg/kg IM (MAX single dose 5 mg); repeat every 5 minutes (MAX IM cumulative dose of 10 mg)	Y	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle IV: Administer by slow injection over at least 2 minutes using a concentration < 5 mg/ml IN: Use 5 mg/ml solution only; max volume per nostril is 1ml				
	Agitation / Excited Delirium (Orange 5)				✓	4-10 mg IM		N	*note, multiple concentrations available Administer undiluted deep IM into large muscle				
	Anxiolysis In CPAP (Blue 10)				✓	0.5 - 2.5 mg IV/IO every 5 minutes; may repeat x 3 (MAX IV/IO cumulative dose of 5mg) OR 1-5 mg IM every 5 minutes; may repeat x 3 (MAX IM cumulative dose of 10 mg)		Y	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle IV: Administer by slow injection over at least 2 minutes using a concentration < 5 mg/ml IN: Use 5 mg/ml solution only; max volume per nostril is 1ml	CONTROLLED SUBSTANCE - Refer to hospital contract	Depends on hospital contract	5mg/ml 1ml vial 0.52; 1mg/ml 5ml vial \$0.78	Paramedic Services
	Pain Control Pre-Cardioversion / Transcutaneous Pacing (Red 17, Red 20)				✓	3 mg IV/IO/IN		N	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle IV: Administer by slow injection over at least 2 minutes using a concentration < 5 mg/ml IN: Use 5 mg/ml solution only; max volume per nostril is 1ml				
	Nerve Agent / Organophosphate / Carbamate Poisoning (Yellow 7)				✓	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils 10mg IM; may repeat every 5 minutes OR 5mg IV/IO; may repeat every 5 minutes	For dyspnea, twitching, n/v, sweating, confusion, or pinpoint pupils 0.2 mg/kg IM (MAX single dose 10 mg); may repeat every 5 minutes OR 0.1 mg/kg IV/IO (Max single dose 5 mg); may repeat every 5 minutes	N	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle				
	Severe Alcohol Withdrawal (Yellow 5)				✓	Apnea, seizure, unconsciousness or flaccid paralysis 10 mg IM OR 5 mg IV/IO; may repeat up to 3 times every 5 minutes	Apnea, seizure, unconsciousness or flaccid paralysis 0.2 mg/kg IM (MAX single dose 10 mg); may repeat every 5 minutes OR 0.1 mg/kg IV/IO (Max single dose 5 mg); may repeat every 5 minutes	N	*note, multiple concentrations available IM: Administer undiluted deep IM into large muscle				
Naloxone	Poisoning / Overdose (Yellow 1)	✓	✓	✓	✓	0.5 mg IN; may repeat once in 2-5 minutes in other nostril 0.1 - 2 mg IV/IO/IM (AEMT & Paramedic)	Under 20 kg or under 5 years: 0.1 mg/kg (AEMT & Paramedic) Over 20 kg or over 5 years: 0.1-2 mg IV/IO/IM (AEMT & Paramedic)	N	IV: Administration over 30 seconds, slow IV push (dilute 0.4 mg with 9 ml NS for total volume of 10 ml)	(3) 2 mg/2 ml syringe or vial	3 doses	2mg/2ml syringe \$27.90 0.4mg/ml vial \$27.52	EMR, EMT, AEMT, & Paramedic Services
Naloxone Auto Injector	Poisoning / Overdose (Yellow 1)	✓	✓	✓	✓	Device dose and route (IN or IM); may repeat once in 2-5 minutes		N		Optional	Optional		EMR, EMT, AEMT, & Paramedic Services (Optional)
Nitroglycerin (tabs or spray)	Chest Pain - Suspected Cardiac Origin (Red 2)		✓	✓	✓	0.4 mg tab or 1 spray SL; may repeat every 2 minutes if systolic BP above 100 mmHg (2 times for EMT/AEMT, no limit for paramedic)		Y - EMT (assist patient) Y - AEMT N - Medic		(1) 25 tablet bottle OR (1) spray	One patient (single use products)	0.4mg tabs #25 bottle \$14.39; Spray bottle \$122.53	AEMT, & Paramedic level services (EMT assist with patient's)
	Pulmonary Edema (Blue 11)		✓	✓	✓	0.4 mg tab or 1 spray SL; may repeat every 2 minutes if systolic BP above 100 mmHg		Y - AEMT N - Medic					AEMT & Paramedic Services
Nitroglycerine 2% Ointment	Pulmonary Edema (Blue 11)		✓	✓	✓	1 inch on chest wall		Y - AEMT N - Medic	Use supplied paper applicator	(2) 1 gram packet & paper applicator	2-4 doses	2% 1gm packet \$1.88	AEMT & Paramedic Services
50% Nitrous Oxide/Oxygen Mixture	Universal Pain Management (Green 22)				✓	Self administered to effect		N - with exceptions	Must blend 50% nitrous oxide with 50% oxygen	Optional	Optional		Paramedic Services (Optional)

Medication	Protocol	EMR	EMT	AEMT	Paramedic	Adult Dosing	Pediatric Dosing	OLMC Req'd?	Medication Notes	Suggested Par Level	PAR LEVEL COVERAGE	Estimated Cost (please note, cost will vary depending on distributor and availability - per Lexicomp accessed Feb 2022)	Service Level Required
Norepinephrine	Post Cardiac Arrest (Red 16)				✓	Starting dose of 0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)		Y	Add 8 mg norepinephrine to 250 ml (D5W or NS) Final concentration is 32 mcg/ml. Must be administered with infusion pump.			8mg/2ml \$35.06	
	Medical Shock (Gold 15)				✓	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	Y	Add 8 mg norepinephrine to 250 ml (D5W or NS) Final concentration is 32 mcg/ml. Must be administered with infusion pump.	(2) 4 gram vials	1 patient	8mg/2ml \$35.06	Paramedic Services
	Cardiogenic Shock (Red 22)				✓	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	Y	Add 8 mg norepinephrine to 250 ml (D5W or NS) Final concentration is 32 mcg/ml. Must be administered with infusion pump.			8mg/2ml \$35.06	
	Tricyclic Antidepressant Overdose (Yellow 2)				✓	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	0.03 mcg/kg/min IV/IO. Titrate by 0.03 mcg/kg/min every 3-5 minutes to maintain systolic BP greater than 100 mmHg. (Usual dose is 0.03 - 0.25 mcg/kg/min) (Usual MAX dose is 0.6 mcg/kg/min) (Absolute MAX dose is 3 mcg/kg/min)	Y	Add 8 mg norepinephrine to 250 ml (D5W or NS) Final concentration is 32 mcg/ml. Must be administered with infusion pump.			8mg/2ml \$35.06	
Ondansetron ODT	Nausea and Vomiting (Gold 20)				✓	4 mg ODT; may repeat once in 15 minutes	Under 4 years: do not use Over 4 years: 4 mg ODT; may repeat once in 15 minutes	N		(2) 4 mg tablets	1 patient	4mg tab \$0.32	AEMT & Paramedic Services
Ondansetron IV	Nausea and Vomiting (Gold 20)				✓	4 mg IV; may repeat once in 15 minutes	Under 4 years: 0.1 mg/kg IV/IM (MAX single dose 4 mg) Over 4 years: 4 mg IV; may repeat once in 15 minutes	N	Administer undiluted over at least 30 seconds, preferably over 2-5 minutes	(2) 4 mg/2 ml syringe or vial	1 patient	4mg/2ml vial \$0.29	AEMT & Paramedic Services
Oxygen	Multiple Protocols	✓	✓	✓	✓	Titrate to SpO2 above 94%	Titrate to SpO2 above 94%	N		See Maine EMS Rules	Defined in Rules		EMR, EMT, AEMT, & Paramedic Services
Sodium Bicarbonate	Metabolic Acidosis, TCA OD, CCB OD, or Hyperkalemia in Cardiac Arrest (Red 9, Red 12, Red 27)				✓	50 mEq bolus IV/IO; may repeat x 2 at 5 minute intervals with goal of QRS complex less than 120msec	1 to 2 mEq/kg IV/IO; repeat every 5 minutes (MAX single dose 50 mEq) (Dilute 1:1 to 4.2%) with goal of QRS complex less than 120msec	N	Administer slowly. Vesicant at concentrations >= 8.4%; Ensure proper catheter placement prior to and during IV infusion. Pediatric Dose must be diluted 1:1 to 4.2%			50mEq/50ml syringe/vial \$7.78	
	Hyperkalemia (Red 26)				✓	50 mEq IV/IO	1 mEq/kg IV over 5 minutes (MAX single dose 50 mEq) (Dilute 1:1 to 4.2%)	N	Administer slowly. Vesicant at concentrations >= 8.4%; Ensure proper catheter placement prior to and during IV infusion. Pediatric Dose must be diluted 1:1 to 4.2%	(4-5) 50 mEq/50 ml 8.4% syringe or vial	2 1/2 doses for a 100 kg patient (or 10 minutes)	50mEq/50ml syringe/vial \$7.78	Paramedic Services
	Tricyclic Antidepressant Overdose (Yellow 2)				✓	1 mEq/kg IV over 1 minute; may repeat as needed with goal of QRS complex less than 120msec	1 mEq/kg IV over 1 minute; may repeat as needed with goal of QRS complex less than 120msec. Under 2 years old: dilute 1:1 with D5W to 4.2%	N	Administer slowly. Vesicant at concentrations >= 8.4%; Ensure proper catheter placement prior to and during IV infusion. If under 2 years old: dilute 1:1 with D5W to 4.2%			50mEq/50ml syringe/vial \$7.78	
	Crush Injury / Suspension Trauma (Green 26)				✓	1 mEq/kg IV over 5 minutes (MAX single dose of 50 mEq)		N	Administer slowly. Vesicant at concentrations >= 8.4%; Ensure proper catheter placement prior to and during IV infusion.			50mEq/50ml syringe/vial \$7.78	
Tetracaine	Ophthalmology (Green 28)				✓	2 drops to affected eye every 5 minutes		N	May administer via Morgan lens	(1) 0.5%/2 ml dropper	1 patient	5% 4ml bottle \$4.39	Paramedic Services
Tranexamic Acid (TXA)	Hemorrhagic Shock (Green 17)				✓	1 gram IV in 250 ml NS or D5W over 10 minutes		N	Dilute in 50-100 ml D5W or NS (or use premixed solution) and administer at a rate of 100 mg/min (1 gram over 10 minutes).	(1) 1 gram/100 ml vial OR premixed 1 gram/100 ml IV bag	1 patient	1gm vial \$7.98	Paramedic Services
	Obstetrical Emergencies (Gold 19)				✓	1 gram IV in 250 ml NS or D5W over 10 minutes		N	Dilute in 50-100 ml D5W or NS (or use premixed solution) and administer at a rate of 100 mg/min (1 gram over 10 minutes).				
Lactated Ringers (IV fluid)	Multiple Protocols				✓	TKO: 10-25 ml/hr Other doses are protocol specific (MAX 40 ml/kg or 2,000 ml without OLMC)	TKO: 10-25 ml/hr Cardiogenic Shock: 10 ml/kg Bolus: 20 ml/kg; may repeat once Other doses are protocol specific	N		See Maine EMS Rules	Defined in Rules		AEMT & Paramedic Services
Heparin	For Heparin Locks Only				✓			N	For heparin lock use only		Should be determined by service		AEMT & Paramedic Services
	Tracheostomy Care (Blue 15)		✓	✓	✓	2-3 ml nebulized	3-4 ml nebulized	N					EMT, AEMT, & Paramedic Services
Normal Saline	Multiple Protocols				✓	TKO: 10-25 ml/hr Other doses are protocol specific (MAX 40 ml/kg or 2,000 ml without OLMC)	TKO: 10-25 ml/hr Cardiogenic Shock: 10 ml/kg Bolus: 20 ml/kg; may repeat once Other doses are protocol specific	N		See Maine EMS Rules	Defined in Rules		AEMT & Paramedic Services
D5W (IV fluid)	Multiple Protocols				✓	TKO: 10-25 ml/hr Other doses are protocol specific (MAX 40 ml/kg or 2,000 ml without OLMC)	TKO: 10-25 ml/hr Cardiogenic Shock: 10 ml/kg Bolus: 20 ml/kg; may repeat once Other doses are protocol specific	N		See Maine EMS Rules	Defined in Rules		AEMT & Paramedic Services
WHO Oral Rehydration Solution	Hyperthermia (Yellow 13)		✓	✓	✓	Sips of 1 teaspoon salt + 8 teaspoons sugar + 1 liter water	Sips of 1 teaspoon salt + 8 teaspoons sugar + 1 liter water	N	Mix 1 teaspoon salt + 8 teaspoons sugar + 1 liter water	Optional	Optional		EMT, AEMT, & Paramedic Services (Optional)