Rapid Sequence Intubation

Induction Agents

Drug	Dose	Weight							Onset/ Duration
		40kg	50kg	60kg	70kg	80kg	90kg	100kg	
etomidate (2 mg/mL)	0.3 mg/kg IV Push	12 mg (6 mL)	15 mg (7.5 mL)	18 mg (9 mL)	21 mg (10.5 mL)	24 mg (12 mL)	27 mg (13.5 mL)	30 mg (15 mL)	15-45s/ 3-12 min
midazolam	0.2-0.3 mg/kg IV Push	**8**-12 mg	**10**-15 mg	**12**-18 mg	**14**-21 mg	**16**-24 mg	**18**-27 mg	**20**-30 mg	30-60s/ 15-30 min
ketamine (50 mg/mL)	1-2 mg/kg IV Push	40-80 mg (0.8-1.6 mL)	50-100 mg (1-2 mL)	60-120 mg (1.2-2.4 mL)	70-140 mg (1.4-2.8 mL)	80-160 mg (1.6-3.2 mL)	90-180 mg (1.8-3.6 mL)	100-200 mg (2-4 mL)	30-60s/ 5-10 min
propofol (10 mg/mL)	1.5-3 mg/kg IV Push	60-120 mg	75-150 mg	90-180 mg	105-210 mg	120-240 mg	135-270 mg	150-300 mg	15-45s/ 5-10 min

Paralytic Agents

Drug	Dose	Weight							Onset/ Duration
		40kg	50kg	60kg	70kg	80kg	90kg	100kg	
succinylcholine* (20 mg/mL)	1.5 mg/kg IV Push	60 mg (3 mL)	75 mg (3.75 mL)	90 mg (4.5 mL)	105 mg (5.25 mL)	120 mg (6 mL)	135 mg (6.75 mL)	150 mg (7.5 mL)	45-60s/ 6-10 min
rocuronium (10 mg/mL)	1 mg/kg (IBW) IV Push	40 mg (4 mL)	50 mg (5 mL)	60 mg (6 mL)	70 mg (7 mL)	80 mg (8 mL)	90 mg (9 mL)	100 mg (10 mL)	45-60s/ 45 min
vecuronium** (1 mg/mL) (mixing instructions below)	0.01mg/kg IV Push	0.4mg (0.4 mL)	0.5 mg (0.5 mL)	0.6 mg (0.6 mL)	0.7 mg (0.7 mL)	0.8 mg (0.8 mL)	0.9 mg (0.9 mL)	1 mg (1 mL)	75-90s/ 45-65 min
	0.15mg/kg IV Push	6 mg (6 mL)	7.5 mg (7.5 mL)	9 mg (9 mL)	10.5 mg (10.5 mL)	12 mg (12 mL)	13.5 mg (13.5 mL)	15 mg (15 mL)	

*Succinylcholine contraindications: personal or familial history of malignant hyperthermia; skeletal muscle myopathies; use after the acute phase of injury following major burns, multiple trauma, extensive denervation of skeletal muscle, or upper motor neuron injury; significant hyperkalemia

**Vecuronium give 0.01mg/kg 3 minutes prior to intubating dose of 0.15mg/kg

Vecuronium – mix one (1) vial with 10 mL of sterile water for injection. This results in a 1 mg/mL concentration.

Pain and Sedation					
Continuous Drip Dosing					
Drug	**Bolus Dose**	**Initial Rate**	**Titration Rate**	**Max Rate**	**Titration Goal**
fentaNYL	25-100 mcg	50 mcg/hr	25 mcg/hr EVERY 30 MINUTES	300 mcg/hr (absolute max 700 mcg/hr)	Per RASS Assessment Goal
ketamine	10 mg - administered by provider only	10 mg/hr	5 mg/hr EVERY 2 HOURS	40 mg/hr	Per RASS Assessment Goal
midazolam	1-4 mg	2 mg/hr	1 mg/hr EVERY 30 MINUTES	8 mg/hr	Per RASS Assessment Goal
propofol	NONE	5 mcg/kg/min	5 mcg/kg/min EVERY 5 MINUTES	50 mcg/kg/min (absolute max 100 mcg/kg/min)	Per RASS Assessment Goal
dexmedetomidine	1mcg/kg	0.2-0.7 mcg/kg/hr	0.1mcg/kg/hr EVERY 2 HOURS	1.4mcg/kg/hr	Per RASS Assessment Goal

Preparation		
Drug	**Concentration**	**Preparation Instructions**
fentaNYL	1000 mcg/100 mL (10 mcg/mL)	1. Pull four (4) fentanyl 250 mg/5 mL ampules and one (1) sodium chloride 0.9% 100 mL bag from the Pyxis 2. Remove and discard 20 mL from the 100 mL bag 3. Use a **filter needle** to draw up 20 mL from the fentanyl 250 mg/5 mL ampule 4. Remove filter needle from syringe - **DO NOT USE the filter needle to inject into the bag** 5. Attach a **regular needle** and inject the 20 mL into the bag 6. Shake the bag to mix
ketamine	500 mg/500 mL (1 mg/mL)	1. Pull one (1) ketamine 500 mg/10 mL vial and one (1) sodium chloride 0.9% 500 mL bag from the Pyxis 2. Remove and discard 10 mL from the 500 mL bag 3. Use a regular needle to draw up 10 mL from the ketamine 500 mg/10 mL vial 4. Inject the 10 mL into the bag 5. Shake the bag to mix
midazolam	25 mg/100 mL (0.25 mg/mL)	1. Pull one (1) midazolam 25 mg/5 mL vial and one (1) sodium chloride 0.9% 100 mL bag from the Pyxis 2. Remove and discard 5 mL from the 100 mL bag 3. Use a regular needle to draw up 5 mL from the midazolam 25 mg/5 mL vial 4. Inject the 5 mL into the bag 5. Shake the bag to mix
propofol	1000 mg/100 mL (10 mg/mL)	1. Pull the premixed bottle from the Pyxis
dexmedetomidine	400mcg/100 mL (4mcg/mL)	1. Pull the premixed bottle from the Pyxis

Paralytic Agents

Continuous Drip Dosing

Drug	Bolus Dose	Initial Rate	Titration Rate	Max Rate	Titration Goal
Vecuronium	10mg	0.8mcg/kg/min	0.25mcg/kg/min EVERY HOUR	2.5mcg/kg/min	Train of Four = 2/4

Preparation

Drug	Concentration	Preparation Instructions
Vecuronium	10mg/50ml (0.2mg/ml)	1. Pull one (1) vecuronium 10mg vial, one (1) 10ml sterile water for injection, and one (1) sodium chloride 0.9% 50ml bag from Pyxis 2. Remove and discard 10ml from the 50ml bag 3. Reconstitute one (1) vecuronium vial using 10ml sterile water for injection (final concentration is 1mg/1ml) 4. Use a regular needle to draw up 10ml of vecuronium 1mg/1ml reconstituted vial 5. Inject the 10 ml into the bag 6. Shake the bag to mix

*****High Alert Medication*****

<u>Not recommended for routine use.</u> Use only with explicit recommendation and guidance of ANMC Intensive Care provider.

Ensure adequate pain control and sedation prior to and during administration of neuromuscular blockade to achieve deep sedation.

Vasopressors

Continuous Drip Dosing

Drug	Bolus Dose	Initial Rate	Titration Rate	Max Rate	Titration Goal
DOBUTamine	NONE	2 mcg/kg/min	Increase by 1 mcg/kg/min EVERY 5 MINUTES	20 mcg/kg/min (absolute max 40 mcg/kg/min)	MAP ≥ 65 or per provider order
DOPamine	NONE	5 mcg/kg/min	2 mcg/kg/min EVERY 5 MINUTES	20 mcg/kg/min	MAP ≥ 65 or per provider order
EPINEPHrine	NONE	2 mcg/min	1 mcg/min EVERY 5 MINUTES	10 mcg/min	MAP ≥ 65 or per provider
norepinephrine	NONE	5 mcg/min	5 mcg/min EVERY 5 MINUTES	40 mcg/min (absolute max 100 mcg/min)	MAP ≥ 65 or per provider order
vasopressin	NONE	1.8 units/hr	NONE	1.8 units/hr	N/A

Preparation

Drug	Concentration	Preparation Instructions
DOBUTamine	250 mg/250 mL (1 mg/mL)	1. Pull the premixed bag from the Pyxis
DOPamine	400 mg/250 mL (1.6 mg/mL)	1. Pull the premixed bag from the Pyxis. This is also in the crash cart
EPINEPHrine	8 mg/500 mL (16 mcg/mL)	1. Pull one (1) epinephrine 30 mg/30 mL vial and one (1) sodium chloride 0.9% 500 mL bag from the Pyxis 2. Remove and discard 8 mL from the 500 mL bag 3. Use a regular needle to draw up 8 mL from the epinephrine 30 mg/30 mL vial 4. Inject the 8 mL into the bag 5. Shake the bag to mix
norepinephrine	8 mg/250 mL (32 mcg/mL)	1. Pull two (2) norepinephrine 4 mg/4 mL vials and one (1) dextrose 5% in water 250 mL bag from the Pyxis 2. Remove and discard 8 mL from the 250 mL bag 3. Use a regular needle to draw up 8 mL from the two norepinephrine 4 mg/4 mL vials 4. Inject the 8 mL into the bag 5. Shake the bag to mix
vasopressin	40 units/40 mL (1 unit/mL)	1. Pull two (2) vasopressin 20 units/mL vials and one (1) sodium chloride 0.9% 50 mL bag from the Pyxis 2. Remove and discard 12 mL from the 50 mL bag 3. Use a regular needle to draw up 2 mL from the two vasopressin 20 units/mL vials 4. Inject the 2 mL into the bag 5. Shake the bag to mix

Anti-hypertensives

Continuous Drip Dosing

Drug	Bolus Dose	Initial Rate	Titration Rate	Max Rate	Titration Goal
esmolol	NONE	50 mcg/kg/min	50 mcg/kg/min EVERY 5 MINUTES	200 mcg/kg/min	Per Blood Pressure Goal
labetalol	NONE	2 mg/min	1 mg/min EVERY 15 MINUTES	10 mg/min. Max cumulative dose 300 mg	Per Blood Pressure Goal
niCARdipine	NONE	5 mg/hr	2.5 mg/hr EVERY 5 – 15 MINUTES	15 mg/hr	Per Blood Pressure Goal
nitroglycerin	NONE	5 mcg/min	5 mcg/min EVERY 5 MINUTES	50 mcg/min (absolute max 400 mcg/min)	Per Blood Pressure Goal
nitroprusside	NONE	0.3 mcg/kg/min	0.5 mcg/kg/min EVERY 3-5 MINUTES	3 mcg/kg/min (absolute max 10 mcg/kg/min)	Per Blood Pressure Goal

Preparation

Drug	Concentration	Preparation Instructions
esmolol	2500 mg/250 mL (10 mg/mL)	1. This is not available in any Pyxis machines. Page “Pharmacy On-call” to make
labetalol	250 mg/250 mL (1 mg/mL)	1. Pull three (3) labetalol 100 mg/20 mL vials and one (1) sodium chloride 0.9% 250 mL bag from the Pyxis 2. Remove and discard 50 mL from the 250 mL bag 3. Use a regular needle to draw up 50 mL from the three labetalol 100 mg/20 mL vials 4. Inject the 50 mL into the bag 5. Shake the bag to mix
niCARdipine	25 mg/250 mL (0.1 mg/mL)	1. Pull one (1) nicardipine 25 mg/10 mL vial and one (1) sodium chloride 0.9% 250 mL bag from the Pyxis 2. Remove and discard 10 mL from the 250 mL bag 3. Use a regular needle to draw up 10 mL from the one nicardipine 25 mg/10 mL vial 4. Inject the 10 mL into the bag 5. Shake the bag to mix
nitroglycerin	50 mg/250 mL (0.2 mg/mL)	1. Pull the premixed bottle from the Pyxis. This is also available in the crash cart
nitroprusside	50 mg/250 mL (0.2 mg/mL)	1. Pull one (1) nitroprusside 50 mg/2 mL vial and one (1) dextrose 5% in water 250 mL bag from the Pyxis 2. Remove and discard 2 mL from the 250 mL bag 3. Use a regular needle to draw up 2 mL from the one nitroprusside 50 mg/2 mL vial 4. Inject the 2 mL into the bag 5. Shake the bag to mix