

Adult Care Plan

Allergies:

Date / / **OR#**

Name _____ Age _____ Ht _____ Wt _____ BSA _____

ASA Class _____

Procedure _____ Time _____ Position _____

Anesthetist _____ Anesthesiologist _____ Surgeon _____

Medical / Surgical History

Current Medications

Preoperative Labs

ECG _____

CXR _____

Preoperative Orders

Metoclopramide PO/IV _____ H₂ Antagonist PO/IV _____

Sodium Citrate _____ Antibiotic _____ Midazolam IV/IM _____

Diazepam PO/IV _____ Glycopyrrolate IM/IV _____ Other _____

Anesthesia Technique

MAC Regional / Epidural / Spinal / IV Regional / Peripheral Nerve Block

General: GETA / LMA / Mask

Airway **Mal** / **TMD** **FB / TMJ** / **ROM** / **Dentition**

☐ **Oral Airway Size** _____

☐ **ETT Oral / Nasal:** Male 7.0 7.5 8.0 Female 6.5 7.0 7.5 **Rae / Laser / Reinforced / DLT** _____

Laryngoscope Blade: Miller / MacIntosh / Wisconsin / Other _____

☐ **LMA** Size 3 (inflate ≤ 20 mL) Size 4 (inflate ≤ 30 mL) Size 5 (inflate ≤ 40 mL)

☐ **LTA** **IV Lidocaine** (1-1.5 mg/kg) **Transtracheal** (3 mL 2%) **SLN** (2 mL 2% bilaterally)

☐ **Vent Settings:** **VT** (8-15 mL/kg) _____ **Frequency** _____ **I:E Ratio** _____

☐ **Inhalation Agents:** O₂ / N₂O / Air Desflurane / Enflurane / Isoflurane / Sevoflurane

Induction Agents

☐ **Alfentanil** (500 µg/mL) (10-75 µg/kg) (2 mL vial in 10 mL total = 100 mcg/mL, 1 mL increments) _____

☐ **Etomidate** (2 mg/mL) (0.2-0.4 mg/kg) _____

☐ **Fentanyl** (50 µg/mL) (5-8 µg/kg) _____

☐ **Ketamine** (10/50/100 mg/mL) (1-2 mg/kg) _____

☐ **Midazolam** (1/5 mg/mL) (0.05-0.35 mg/kg) _____

☐ **Propofol** (10 mg/mL) (2-3 mg/kg) _____

☐ **Sodium Thiopental** (2.5% solution = 25 mg/mL) (3-5 mg/kg) _____

- ☐ **Sufentanil** (50 µg/mL) (0.5-1.5 µg/kg) _____
- ☐ **Mask Induction** (agent) _____ (concentration) _____

Propofol Drip

- ☐ General anesthesia (100-200 mcg/kg/min) _____
- ☐ Monitored Anesthesia Care / Sedation: _____

Narcotics

- ☐ **Remifentanyl** (0.5-1 mcg/kg/min for intubation / anesthesia supplement infusion (0.05-0.15 µg/kg/min)
- ☐ **Fentanyl** (50 µg/mL) analgesia (0.5-2 µg/kg) _____ anesthesia supplement (2-20 µg/kg) _____
 infusion (0.025-0.25 µg/kg/min) _____ epidural bolus (50-100 µg)
 _____ epidural infusion (15-50 µg/hr) _____ spinal bolus (5-25 µg)
- ☐ **Hydromorphone** (1/2/3/4 mg/mL) analgesia (0.01-0.03 mg/kg)
- ☐ **Meperidine** (10/25/50/75/100 mg/mL) analgesia (0.5-2 mg/kg) _____ shivering (12.5-50 mg)
- ☐ **Morphine** (1/2/5/10/15 mg/mL) analgesia (0.05-0.2 mg/kg)
 _____ anesthesia supplement (0.2-0.5 mg/kg) _____ epidural bolus (3-5 mg)
 _____ epidural infusion (0.1-1.0 mg/hr) _____ spinal bolus (0.1-0.4 mg)
- ☐ **Sufentanil** (50 µg/mL) analgesia (0.2-0.5 µg/kg) _____ anesthesia supplement (0.5-1 µg/kg) _____ infusion
 (1mcg/ml)(0.1-0.3mcg/kg/h) _____ epidural bolus (10-50 µg) _____
 epidural infusion (5-25 µg/hr) _____ spinal bolus (5-15 µg)

Muscle Relaxants

- ☐ Succinylcholine (20 mg/mL) (1-1.5 mg/kg) _____ ☐ drip (500/1000 mg powder) _____

Nondepolarizing: (conc)

(Intubation)

(Maint)

- | | | |
|--|-------------------------|---------------------------|
| ☐ Cisatracurium (2 mg/mL). | (0.1-0.15 mg/kg) _____ | (0.03 mg/kg) _____ |
| ☐ α-Tubocurarine (3mg/mL) | (0.5-0.6 mg/kg) _____ | (0.05-0.15 mg/kg) _____ |
| ☐ Mivacurium (2 mg/mL) | (0.15-0.25 mg/kg) _____ | (0.03-0.1 mg/kg) _____ |
| ☐ Pancuronium (1mg/mL) | (0.08-0.12 mg/kg) _____ | (0.007-0.015 mg/kg) _____ |
| ☐ Rocuronium (10 mg/mL) | (0.6-1.2 mg/kg) _____ | (0.1-0.15 mg/kg) _____ |
| ☐ Vecuronium (1mg/mL) | (0.08-0.12 mg/kg) _____ | (0.01-0.015 mg/kg) _____ |

Reversal Agents: Anticholinesterase and Anticholinergic

- ☐ **Suggamadex** (2 mg/kg for >2 twitches / 4 mg/kg for 1-2 post-tetanic twitches)
- ☐ **Neostigmine** (1 mg/mL) (0.04-0.06 mg/kg) max 5 mg _____ + **Atropine** (15 µg/kg)
- ☐ **Neostigmine** (0.04-0.07 mg/kg) _____ + **Glycopyrrolate** (0.2 mg/mL) (7-10 µg/kg)
- ☐ **Pyridostigmine** (5 mg/mL) (0.15-0.35 mg/kg) _____ + **Glycopyrrolate** (7-10 µg/kg)

Antiemetics

- ☐ Ondansetron ☐ Granisetron ☐ Aprepitant ☐ Droperidol ☐ Metoclopramide
☐ Dexamethasone ☐ Scopolamine ☐ Diphenhydramine ☐ Promethazine

Local Anesthetics

- ☐ Buivacaine 2mg/kg _____ w/epi 3mg/kg _____ Chloroprocaine 11mg/kg _____ w/epi 14mg/kg _____
☐ Lidocaine 4mg/kg _____ w/epi 7mg/kg _____ Cocaine 2mg/kg _____ w/epi 4mg/kg _____
☐ Mepivacaine 4mg/kg _____ w/epi 7mg/kg _____

Epinephrine (2-4 mcg/kg) _____
1 : 1000 = 100 mcg/ml 1 : 100,000 = 10 mcg/ml 1 : 200,000 = 5 mcg/ml

Fluid Calculations

- ☐ Maint.Fluids=kg+40 = 4 mL/kg x kg 1-10 + 2 mL/kg/hr x kgs 11-20 + 1 mL/kg/hr x kg > 20
☐ Estimated Fluid Deficit (EFD) = MF × hours NPO _____
Perioperative Fluid Replacement (PFR) = MF + third space/evaporative losses
(min trauma = 3-4 mod trauma = 5-6 severe trauma = 7-8 mL/kg/hr) _____
☐ Estimated Blood Volume (EBV) = Men (75 mL/kg) Women (65 mL/kg) _____
☐ Allowable Blood Loss (ABL)

$$ABL = EBV \times (\text{current Hct} - \text{lowest acceptable Hct}) / (\text{Current Hct} + \text{Allowable Hct} / 2)$$

If EBL < ABL, give crystalloid at 3:1 or colloid at 1:1 ratio. EBL > ABL, give blood.

(EBL). Dry 4 × 4 = 10 mL, moist = 5 mL. Dry laps = 100 mL, moist = 50 mL of blood.

Perioperative Fluid Plan

Hour	Maint.	EBL	Blood 1:1 EBL	Colloid 1:1 EBL	Crystalloid EFD	Crystalloid PFR	Crystalloid 3 X EBL	Total
1st hour					1/2 =			
2nd hour					1/4 =			
3rd hour					1/4 =			
4th hour								

Preoperative Issues:

Plan A:	Rationale	Plan B:
1.		
2.		
3.		
4.		

Induction/airway management/monitoring issues:

1.		
2.		
3.		
4.		

Maintenance Issues:

1.		
2.		
3.		
4.		

Emergence Issues:

1.		
2.		
3.		
4.		

Spinal Anesthesia

Spinal cord: Extends to L1 in 90% of adults, L2 in 4%, and T12 in the remaining 6%. In newborns, the cord ends at L3, and moves to L1 by two years old.

Skin--SQ--Supraspinous--Interspinous--Lig. flavum--Epidural--Dura--Subdural--Subarachnoid

Tracts: Autonomic--Temp--Pain--Touch--Pressure--Motor--Vibration--Proprioception C6=thumb
C7=3rd digit C8=5th digit=100% sympathectomy SNS=thoracolumbar PSNS=craniosacral

SNS 2-6 levels > sensory 2 levels > motor block

Local Anesthetic Drug Dosage (mg) for Desired Sensory Level Duration (min)

	L1	T10-navel	T6	T4-nipple	Plain	epi
Bup 0.75% /D8.25%	4 - 6 mg 0.5-0.8 mL	7.5 -12 mg 1-1.6 mL	10 -14 mg 1.3 - 1.9 mL	12 -20 mg 1.6 -2.6 mL	90-150 min	90-150 min
Lidocaine 5% / D7.5%	25-50 mg 0.5 - 1 mL	50-60 mg 1 - 1.2 mL	60-75 mg 1.2 - 1.5 mL	75-100 mg 1.5 - 2 mL	45-60 min	60-90 min
Tetracaine 1%	6-8 mg 0.6 - 0.8 mL	8-12 mg 0.8 - 1.2 mL	10-14 mg 1 - 1.4 mL	12-16 mg 1.2 - 1.6 mL	120-180 min	180-240 min

+ 2 mg (.2mL) tetra, 10 mg (.2 mL) lido, or 1.5 mg (.2mL) bupiv for each 6" < or > 66"

Additives: Fentanyl 10-25mcg (on 5-15', dur 3-8h). Sufent 1-10mcg (on 5-15', dur 2-10h), Duramorph 0.1-0.4mg (on 30-60', dur 6-24h). Epi 1:1000 0.2 mg = 0.2mL. Clonidine 0.3-3mcg/kg

Epidural Anesthesia

Lidocaine	1-2%	Rapid onset	Intermediate duration
Bupivacaine	.25-.75%	Slow	Long
Chloroprocaine	1.5-3%	Rapid	Short
Mepivacaine	1-2%	Intermediate	Intermediate

Volume = Level: 1.0-1.6 mL per segment from injection site. Reduce volume 30% in pregnant patients, 20-25% in obese patients and 50% in the elderly.

Concentration = Intensity of sensory and motor block: Low conc. blocks pregang. symp. B fibers. High conc. blocks unmyelinated C fibers (warmth, pain, touch), med-size myelinated A-delta (cold, pain, touch), A-gamma (motor), and large A-alpha and A-beta (motor & proprioception).

Additives: Fentanyl (50-100µg). Epi 1:200,000 (5mcg/ml) (^duration). NaHCO₃ (^onset) 1ml/20ml total. Duramorph (3-5mg). Clonidine 2-10mcg/kg.

Emergency

Ephedrine (5 mg/ml) (100-200 mcg/kg) (5-20 mg)

Phenylephrine (100 mcg/ml) (1-2 mcg/kg) (10-200 mcg/min) (0.15-4 mcg/kg/min)

Epinephrine Arrest (1 mg = 10 ml 1:10,000) (0.02 mg/kg = 0.2 ml/kg 1:10,000)

Anaphylaxis (0.1-0.5 mg = 0.1-0.5 ml 1:1000) (0.01 mg/kg) SQ/IM Q15 min

Pressor (2-20 mcg/min) (0.1-1 mcg/kg/min)

Esmolol (25-100 mg) (0.5-2 mg/kg) (load 500 mcg/kg over 1 min, 50-200mcg/kg/min)

Labetolol (5-20 mg) Max 100mg **Metoprolol** (5 mg X 3) **Hydralazine** (2.5-20 mg)

Enalapril (.625-1.25 mg) **Atropine** (Adult .5-1mg, ≤ .04mg/kg) (Ped 10-20mcg/kg, ≥ 0.1mg)

NTG (100 mcg/ml) (25-100 mcg) (0.5-2 mcg/kg) (5-200 mcg/min) (0.1-4 mcg/kg/min)

Nipride (50 mg /250 ml) (10-300 mcg/min) (0.25-10 mcg/kg/min)

Local Anesthetic	Max Dose	pKa	Gas	MAC/ O2	MAC/ N2O	Vapor Pressure	B:G Coeff.
Bupivacaine	2 mg/kg	<u>8.1</u>	Iso	1.15	0.5 [70%]	238mmHg	1.4
with epi	3 mg/kg	_____	Sevo	3.0 [1-6 mo] 2.5 [3-12 yr]	2.0 [65%]	162	0.69
Chloroprocaine	11 mg/kg	<u>9.1</u>		2.1 [40 yr] 1.7 [60 yr]	1.1 [65%] 0.9 [65%]		
with epi	14 mg/kg	_____	Des	6.0	2.83 [60%]	669	0.42
Cocaine	2 mg/kg	_____	Halo	0.77	0.29 [66%]	243	2.3
Lidocaine	4 mg/kg	<u>7.7</u>	Enf	1.70	0.60 [70%]	175	1.9
with epi	7 mg/kg	_____	N2O	104		39,000	0.47
Mepivacaine	4 mg/kg	<u>7.6</u>	Max dose epinephrine		2-4 µg/kg		
with epi	7 mg/kg	_____	1:100,000 = 10 µg/mL		1:200,000 = 5 µg/mL		