HSHS Sacred Heart St. Joseph's

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FACILITY: Sacred Heart Hospital St. Joseph's Hospital	**MANUAL(S): Provision of Care**
TITLE: Moderate and Deep Sedation by Non-Anesthesia Providers	**ORIGINATING DEPARTMENT:**
SUPERCEDES: April 15, 2004	**POLICY NUMBER:**

I. POLICY:

II. PURPOSE:

This policy applies to moderate and deep sedation intentionally induced by non-anesthesia providers. This policy does not apply to sedation induced for emergency intubation or ventilator management.

III. DEFINITIONS:

1. Minimal Sedation: A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected. Ordering and administration of minimal sedation does not require specific privileges. A pre-sedation assessment is not required prior to minimal sedation.

2. Moderate Sedation: A drug-induced depression of consciousness during which patients respond purposefully to verbal commands either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

3. Deep Sedation: A drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully after repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway and spontaneous ventilation may be adequate. Cardiovascular function is usually maintained.

IV. GUIDELINES/PROCEDURES

1. Moderate and deep sedation shall only be induced under the supervision of qualified physicians in locations with available qualified staff members and all equipment and supplied required in the policy.

   A. Physicians who order and supervise moderate and deep sedation shall possess current corresponding privileges.
   B. Nurses who administer sedatives or monitor patients under moderate or deep sedation shall demonstrate corresponding current clinical competence.

2. Except as otherwise specified, Medical Staff Policy #14, Documentation Requirements for History and Physicals, outpatient procedures with only moderate sedation do not require a separate history and physical examination.

3. A pre-sedation assessment, risk assessment, sedation plan and other assessments and monitoring (as specified in the current version of the Moderate/Deep Sedation Record) shall be completed prior to sedating the patient.

4. An immediate pre-sedation reassessment shall be completed when the patient is in the sedation location. This assessment is documented as pre-sedation vital signs on the Moderate/Deep Sedation Record.

5. Intra-sedation monitoring:

   A. One staff member shall be responsible for monitoring the patient during moderate or deep sedation. During moderate sedation this staff member may have other interruptible duties, but their primary duty shall be patient monitoring. During deep sedations this individual may not have other responsibilities. Vital signs, level of consciousness and oxygen saturation shall be recorded at least every 15 minutes and more frequently as clinically indicated.
   B. Rescue and resuscitation equipment and personnel shall be immediately available throughout the patient's sedation. This equipment needs to include but is not limited to: defibrillator, suction, oral or nasal pharyngeal airways, oxygen, ambu bag, and reversal agents.
   C. During deep sedation supplemental oxygen will be utilized unless contraindicated.

6. Post-sedation assessments, instructions, transfer and discharge shall be documented as indicated on the current Moderate/Deep Sedation Record.

7. Administration of deep sedation by non-anesthesiologists is limited to: Physician privileges for Deep Sedation shall be granted by the Credentials Committee and are limited to Emergency Medicine physicians. Privileges in Deep Sedation apply only to practice in the physician's primary area of expertise. The non-anesthesiologist is not credentialed to serve as a consultant in anesthesiology.

8. Emergency Department nurses who are trained and have demonstrated competency in delivery of specific medications used for procedural sedation and analgesia may, under the direct supervision of an emergency physician, deliver medications including but not limited to etomidate, propofol and ketamine.

ATTACHMENT:
Appendix A: Pediatric Sedation/Analgesia By Non-Anesthesiologists/
Medication Guidelines (Moderate Sedation)

Appendix B: Pediatric Reversal Agents By Non-Anesthesiologists/
Medication Guidelines (Moderate Sedation)

V. REFERENCES:

- Joint Commission on Accreditation of Healthcare Organizations . Standards and FAQ's: Oakbrook Terrace, IL
- Centers for Medicine and Medicaid Services: Conditions of Participation, Anesthesia Services.
- Statement on Granting Privileges for Administration of Moderate Sedation to Practitioners who are not Anesthesia Professionals: American Society of Anesthesiologists.
- CMS Memo: Ref; S&C-11-10-Hospitals, Revised Hospital Anesthesia Services Interpretive Guidelines –State Operations Manual (SOM) Appendix A, Date: January 14, 2011
- Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists: Anesthesiology, V. 96, No. 4, April 2002.

Review & Endorsement By:	**Revised**	**New**
SHEC Medical Executive Committee: March 27, 2009		September 15, 2009
SJCF Medical Executive Committee: July 27, 2017		July 27, 2017

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APPENDIX A

PEDIATRIC SEDATION/ANALGESIA BY NON-ANESTHESIOLOGISTS MEDICATION GUIDELINES (Moderate Sedation)

Medication/ Indication	Dose & Frequency	Onset	Peak	Duration	Half-Life	Admin. Techniques	Potential Adverse Reactions	Special Delivery Nursing Considerations	Patient Teaching Instruct Parent & Child
Diazepam IV (Valium) **-Antianxiety agent** **-Sedation/light anesthesia**	Infants >30 days and children ≤ 5 years: 0.05-0.3mg/kg/dose every 15-30 minutes to maximum total dose of 5mg Children >5 years: Same as above to maximum total dose of 10mg	Less than 2 minutes	3-4 minutes	15 minutes to 1 hour	20-80 hours	Slowly over 3 minutes. Do not exceed 1-2mg/ minute. Rapid IVP may cause sudden respiratory depression, apnea, or hypotension. Do not use small veins. Do not mix or dilute with other meds or solutions. If given with narcotic, reduce narcotic dose by 1/3. Maximum dose=10mg.	Drowsiness, rash, thrombosis & phlebitis @ site, slurred speech, nausea, bradycardia, hypotension, respiratory depression, blurred vision.	To reduce reactions at the site, give slowly. (1-2mg/minute.) Avoid small veins. Solution is unstable, do not mix with any other drug.	Drug may cause dizziness. Avoid activities that require mental alertness for 24 hours. Keep activity to minimum x 24 hours. Soft food, encourage "Quiet time."
Chloral Hydrate PO only **-Hypnotic** **-Sedative**	Classified as sedation/analgesia when total dose exceeds 75mg/kg Frequency: Single dose. 500mg maximum = infants 2000mg maximum = children	30 minutes	30-60 minutes +	4-8 hours	7-10 hours	Capsule or syrup (500 mg/5ml) available. May dilute syrup in juice. Capsule and liquid should be taken with full glass of water or juice to reduce GI upset. **Note: due to unpleasant taste, diluting in too large amount of juice or H_20 may not be optimal.**	Drowsiness, disorientation, incoherence, excitement, delirium, lightheadedness, dizziness, GI upset.	PO syrup has an unpleasant, bile-like taste which may be reduced by chilling the syrup before administration.	Review list of drug side effects with parent. Keep activity to minimum x 24 hours. Soft food. Monitor for signs of respiratory depression. (See Versed/Valium)
Pentobarbital IM **-Hypnotic** **-Pre-op sedation**	Children >18 months: Initial 2mg/kg, additional doses of 1-2 mg q 5-10 minutes with maximum total dose of 6mg/kg or 150mg	Within 10-15 minutes		3-4 hours	25 hours	Usual dose 50 mg. Subsequent fractions administered after 1-minute observation. Assess site for patency. Not for SQ use. Do not mix in same syringe with other drugs.	Potent CNS depressant. Too rapid administration may cause spasms of the larynx, pharynx or both.	Administer analgesics as needed since sedatives and hypnotics do not control pain. Initiate safety measures once medication is administered.	Caution that drug may cause drowsiness and morning after "hangover". (Note: Drug has 25-hour half life.) Avoid other CNS depressants. (See Versed/Valium)

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Medication/ Indication	**Dose & Frequency**	**Onset**	**Peak**	**Duration**	**Half-Life**	**Admin. Techniques**	**Potential Adverse Reactions**	**Special Delivery Nursing Considerations**	**Patient Teaching Instruct Parent & Child**
Meperidine IV (Demerol) -Premedication -Analgesia -Anesthesia -Prevention & treatment of post-op shivering (rigors)	1-1.5 mg/kg Dose q 3-4 hours or 1-2 mg/kg as single dose preop.	1-5 minutes	10-20 minutes	1-2 hours	2-4 hours	Administer over a 30-second period into infusing IV line. Maximum dose 2mg/kg. Useful for procedures less than 30 minutes.	Hypersensitivity, respiratory depression, apnea, hypotension, peripheral circulatory collapse, cardiac arrest, light headed, dizziness N & V, diaphoresis, tachycardia, bradycardia, euphoria, dysphoria, weakness.	Use with caution in clients with asthma. Meperidine has atropine-like effects.	May cause dizziness, nausea and vomiting. (See Versed/Valium)
Fentanyl IV -pre-op medication -adjunct to anesthesia -sedation -analgesia	1-2 mcg/kg May repeat q 30-60 minutes.	Immediate	5-15minutes	30-60 minutes	2-4 hours	Slowly titrate, infuse into running line. Maximum: 4-5mcg/kg	Respiratory depression, apnea, rigidity, bradycardia, hypotension, dizziness, blurred vision, N & V, laryngospasm and diaphoresis.	Rapid IV administration may cause seizures, skeletal and thoracic muscle rigidity. ("Pipe Chest/"Barrel Chest") Should not be given to patients with neurovascular diseases, myasthenia gravis, etc.	Caution patient to rise slowly as they may experience orthostatic hypotension. Drug causes dizziness. Avoid other CNS depressant for at least 24 hours. (See Versed/Valium)
Droperidol IV (Inapsine) -antiemetic -tranquilizer	0.088-0.165 mg/kg For induction maintenance	3-10 minutes	30 minutes	2-4 hours	2.5 hours	Administer IV over 2-5 minutes. May mix with fentanyl, glycopyrrolate, scopolamine, D5W, NS or L.R. Precipitates with barbiturates. Rule out QT prolongation prior to use.	If mixing with narcotic, be familiar with widely differing duration of actions. May cause apnea, hypotension, peripheral vasodilatation, drowsiness, tachycardia, extrapyramidal effects, restlessness, hyperactivity	Observe for extra-pyramidal symptoms for up to 48 hours after procedure.	Drug causes drowsiness. May experience extrapyramidal symptoms for up to 48 hours after administration. (See Versed/Valium)

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Fentanyl IV -pre-op medication -adjunct to anesthesia -sedation -analgesia	1-2 mcg/kg May repeat q 30-60 minutes.	Immediate	5-15minutes	30-60 minutes	2-4 hours	Slowly titrate, infuse into running line. Maximum: 4-5mcg/kg	Respiratory depression, apnea, rigidity, bradycardia, hypotension, dizziness, blurred vision, N & V, laryngospasm and diaphoresis.	Rapid IV administration may cause seizures, skeletal and thoracic muscle rigidity. (“Pipe Chest/”Barrel Chest”) Should not be given to patients with neurovascular diseases, myasthenia gravis, etc.	Caution patient to rise slowly as they may experience orthostatic hypotension. Drug causes dizziness. Avoid other CNS depressant for at least 24 hours. (See Versed/Valium)
Droperidol IV (Inapsine) -antiemetic -tranquilizer	0.088-0.165 mg/kg For induction maintenance	3-10 minutes	30 minutes	2-4 hours	2.5 hours	Administer IV over 2-5 minutes. May mix with fentanyl, glycopyrrolate, scopolamine, D5W, NS or L.R. Precipitates with barbiturates. Rule out QT prolongation prior to use.	If mixing with narcotic, be familiar with widely differing duration of actions. May cause apnea, hypotension, peripheral vasodilatation, drowsiness, tachycardia, extrapyramidal effects, restlessness, hyperactivity	Observe for extra-pyramidal symptoms for up to 48 hours after procedure.	Drug causes drowsiness. May experience extrapyramidal symptoms for up to 48 hours after administration. (See Versed/Valium)

APPENDIX B

PEDIATRIC REVERSAL AGENTS BY NON-ANESTHESIOLOGISTS MEDICATION GUIDELINES (Moderate Sedation)

Medication/ Indication	Dose & Frequency	Onset	Duration	Potential Adverse Reactions	Special Delivery Nursing Considerations
Naloxone IV (Narcan®) Opioid Reversal	Best to inject into an infusing IV line. 0.01 mg/kg IV. Inject at 2-3 minute intervals PRN.	Within 2 minutes	20-60 minutes	Hypertension, hypotension, tachycardia, ventricular arrhythmias, cardiac arrest, nausea, vomiting, diaphoresis	Duration of action is shorter than many opioids. Therefore, repeat doses may be required.
Flumazenil (Romazicon®) Benzodiazepine Reversal 1-17 years of age	Best to inject into an infusing IV line. 0.01 mg/kg (up to 0.2 mg) IV over 15 seconds. Wait additional 45 seconds before repeating, if necessary. Administer additional 0.01 mg/kg (up to 0.2 mg). Max dose 0.05 mg/kg or 1 mg, whichever is lower.	1-3 minutes	Usually less than 1 hour	Hypertension, hypotension, arrythmias, bradycardia, tachycardia, chest paid, fatigue, dizziness, headache, anxiety, euphoria, abnormal crying, nausea, vomiting, hot flashes, blurred vision	May precipitate seizures in patients whose seizures are controlled by benzodiazepines (e.g., Clonazepam). Re-sedation may occur due to Flumazenil short half-life in comparison to some benzodiazepines, especially in patients 1-5 years of age. May require re-dosing.