Major Hospital A Major Health Partner	Minimal and Moderate Procedural Sedation NS 58
Does this policy meet a regulatory standard? Yes __X__No _____	Formulated by: Nursing Leadership Approved by: P&T Committee and Nurse Executive Committee Effective Date: 07/01/2007

PURPOSE: To provide guidelines for the safe administration of minimal and moderate sedation for a procedure by providing relief of anxiety or amnesia with minimal risk to ensure patient safety and recovery.

DEFINITIONS:

Minimal sedation (anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, cardiovascular and ventilatory functions are unaffected. An example of minimal sedation would be a single, oral sedative or analgesia medication administered in a dose that would normally be unsupervised in treatment of insomnia, anxiety, or pain.

Moderate sedation (conscious sedation) is a drug-induced depressed level of consciousness during which patients respond purposefully to verbal commands either alone or with light tactile (physical) stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

Medications given for pain or sleep that are not associated with the performance of procedures as well as deep sedation, mechanical ventilation and anesthesia are not covered in this policy.

GUIDELINE STATEMENTS:

1. Personnel Qualifications:

1.1. Minimal Procedural Sedation. Individuals involved in the provision and monitoring of minimal sedation shall know the goals and objectives of minimal sedation and be familiar with the medications utilized in minimal sedation and reversal agents. These individuals should be well informed of institutional policies, trained in basic life support, and be familiar with the emergency procedures of the institution. Knowledge of readily accessible crash carts is required. A working knowledge of

resuscitation equipment and the function and use of other monitoring devices including sphygmomanometers and pulse oximeters is necessary. Nurses or other qualified personnel who have at least a BLS certification are permitted to administer minimal sedation.

1.2. Moderate Procedural Sedation. In addition to the minimal procedural sedation qualifications above, nurses or other qualified personnel involved in the provision and monitoring of moderate procedural sedation must be certified in Advanced Cardiac Life Support (ACLS) for adult patients or Pediatric Advanced Life Support (PALS) for pediatric patients or are board certified/eligible in emergency medicine. Knowledge and immediate access to emergency (age specific) crash carts is required. These nurses or other qualified personnel are qualified to monitor and if needed, rescue a patient that may progress to deep sedation. These nurses or qualified personnel are competent to manage a compromised airway and to provide adequate oxygenation and ventilation.

2. Location / Equipment

2.1. Minimal sedation may be administered in patient care units. Equipment readily available: 02 supplies, crash cart (age appropriate), suction, pulse oximetry, BP monitor and stethoscope. Functioning Intravenous (IV) Access should also be available.

2.2. Moderate sedation may be administered in patient care units and procedural rooms. Equipment readily available: 02 supplies, crash cart (age appropriate), suction, pulse oximetry, BP monitor, stethoscope, and EKG monitor. Functioning Intravenous (IV) Access should also be available.

3. Procedure

3.1. Informed consent is needed for the procedure and sedation for minimal/moderate sedation with an explanation by the performing provider regarding the options, risks and alternatives involved with the recommended sedation.

3.2. Pre-sedation phase. The MD, Nurse Practitioner [NP], or Physician Assistant [PA] is responsible for the patient receiving minimal or moderate sedation being assessed physiologically and psychologically before the procedure to include the following:

3.2.1. Physical assessment / ASA classification. The pre-sedation assessment

must be completed by the performing provider. The providers must clarify on the pre-sedation assessment the plan of care and the intent of either minimal or moderate sedation.

3.2.2. Drug allergies / sensitivities

3.2.3. Comprehensive health evaluation including age, weight, health conditions that may require additional considerations, (hypertension, diabetes, cardiopulmonary disease, renal problems), current medications and relevant personal or family medical history.

3.2.4. Baseline vital signs obtained and documented.

3.2.5. Level of consciousness / mental status noted and documented.

3.2.6. For moderate sedation: time last ate or drank (see attachment below "Fasting Guidelines" chart).

3.2.7. In the case of outpatients, a responsible adult must be available to assume responsibility for the patient after recovery from minimal or moderate sedation.

3.3. During the Procedure

3.3.1. A provider will order the medications needed for the procedure. The nurse or qualified personnel assisting with the moderate sedation will ensure that the medication ordered, and reversal agents are readily available.

3.3.2. Minimal sedation requires baseline P, RR, BP, 02 SAT, physical assessment, LOC, pain score and Aldrete score to be obtained pre-medication and again immediately prior to the procedure.

3.3.3. Moderate sedation requires baseline P, RR, BP, 02 SAT, physical assessment, height/weight, fasting status, functional IV saline lock, H&P, pain score, and Aldrete score obtained pre-medication. When medication is given, continuous pulse oximetry, blood pressure, pulse, and respiratory rate should be taken and documented at least every 5 minutes with IV medications and every 15 minutes with oral medications. Inform the physician of a 02 SAT < 90%, RR < 10 and BP not within 20% of baseline. EKG is monitored for moderate sedation (may not be appropriate in some

areas such as MRI). EKG monitoring is also used on all pediatric/newborn patients when IV moderate sedation is performed (0-17 years of age).

3.3.4. The nurse or qualified personnel assisting with the moderate sedation must have no other responsibilities that would leave the patient unattended or compromise continuous monitoring. This will ensure monitoring of the patient that the INTENT of sedation matches the ACTUAL effect of the sedation. The nurse or qualified personnel shall assess signs of loss of protective reflexes.

3.4. Recovery period. Patients may recover in the recovery room or department in which the sedation was administered. All patients will be monitored as follows:

3.4.1. Minimal sedation requires monitoring of 02 SAT, P, RR, BP until Aldrete score is at least 9 or equal to their pre-Aldrete assessment score.

3.4.2. Moderate sedation requires monitoring of O2 SAT, P, RR, and BP with recordings at least every 15 minutes for a minimum of 30 minutes or until Aldrete score is at least 9 or equal to their pre-Aldrete assessment score.

3.4.3. Discharge criteria require all patients to have a post sedation Aldrete score of at least 9 or equal to their pre-assessment score with no 0 in any category. Scores less than 9 require a provider's order for discharge.

3.4.4. Verbal and written instructions are provided to the patient and the accompanying adult concerning who to contact if a problem develops. A copy of the written instructions will be placed in the medical record.

3.4.5. Patients must be monitored for a minimum of 2 hours after the last dose of reversal agent is given (if applicable).

3.4.6. Surgical Services follows a discharge scoring system for Phase 1 and Phase 2. Refer to policy OR-RR-01.

4. Documentation will be completed on the minimal or moderate sedation intervention or according to department specific documentation (all parameters as defined within this policy must be present).

5. The Director of Anesthesia will participate in the review/revision of the Minimal or Moderate Procedural Sedation Policy with his/her approval noted and dated on the policy.

6. Outcome Data

6.1. All reversal agents' usage is monitored for extended recovery (greater than one hour) and ventilator assistance.

6.2. A random audit of moderate sedation patients is done which monitors consent, time out (if applicable), H&P, post procedure instructions/education given, MD signature, extended stay (if applicable), ventilator assistance required, and if any reversal agents were given.

7. Forms/charts pertaining to this policy are available below. The available forms/charts are: 1) Fasting Guidelines for Moderate Sedation, 2) Adult/Pediatric Procedural Sedation Medication Guidelines, and 3) Pre-sedation Assessment.

Reviewing & Revising:

Reviewed	Revised
04/06/2010	12/10/2013
03/29/2013	08/01/2017
04/17/2015	12/19/2018
10/31/2019	9/22/2022
	09/25

References &/or Standards listed here:

National Center for Biotechnology Information. (2025) Procedural Sedation. Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK551685/#:~:text=Minimal%20sedation%2C%20also%20called%20anxiolysis,and%20ventilatory%20functions%20are%20unaffected.

ACHC Standard 18.00.00 Condition of Participation: Medical Leadership for Anesthesia Services 2025

ACHC Standard 18.00.03 Moderate Sedation (conscious sedation) 2025

ACHC Standard 16.01.01 Preparation and administration of drugs 2025

ACHC Standard 16.01.06 Administration of blood products and IV medications 2025

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Approved by: Dr. David Whitaker, Medical Director of Anesthesia on 9/28/25 @ 1015

Moderate Sedation Fasting Guidelines:

The time patients last ate and drank and proceed according to fasting guidelines below:

Age	Solids & Non-Clear Liquids	Clear Liquids
Adults/Children > 36 months old	6-8 hours	2-3 hours
Children 6-36 months old	6 hours	2-3 hours
Children < 6 months old	4-6 hours	2 hours

Pre-sedation Assessment:

Physical assessment and ASA classification:

ASA Class	Description	Examples
I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
II	A patient with mild systemic disease without significant functional limitations.	Current smoker, social alcohol drinker, pregnancy, controlled preeclampsia without severe features, obesity (BMI 30-40), well-controlled DM/HTN, mild lung disease
III	A patient with severe systemic disease and substantial functional limitations with 1 or more moderate-to-severe diseases.	Poorly controlled DM or HTN, COPD, morbid obesity (BMI >/= 40), active hepatitis, alcohol dependence or abuse, an implanted pacemaker, moderate reduction of ejection fraction, ESRD

		receiving dialysis, history of MI (> 3 months), CAD with stents, CVA or TIA
IV	A patient with severe systemic disease that is a constant threat to life	Recent (< 3 months) MI, CVA, TIA or CAD with stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, shock, sepsis, preeclampsia with severe features complicated by adverse events, such as HELLP syndrome, DIC, ARD or ESRD not receiving hemodialysis
V	A moribund patient who is not expected to survive without the operation	Ruptured abdominal/thoracic aneurysm, uterine rupture, massive trauma, intracranial bleed with mass effect, ischemic bowel in the presence of significant cardiac pathology, or multiple organ or system dysfunction
VI	A patient declared brain-dead whose organs are being removed for donor purposes	

Adult Procedural Sedation Medication Guidelines

Medication	Dose	Maximum Dose	Onset of Action	Duration of Action	Reversal Agent	Time to Peak	Reversal Agent Onset of Action
Lorazepam (Ativan) **Class: Benzodiazepine**	0.25-2mg IV	2mg	20-30 min	6-8 hours	Flumazenil (Romazicon) 0.2mg IV over 2 min May repeat q 1 min for a total of 1mg	6-10 min	1-2 min 80% effect within 3 minutes; Duration 60 min

Diazepam (Valium) Class: Benzodiazepine	1-2mg IV over 2 min with additional 1mg increments	15-20mg	3-5 min	15-60 min	Flumazenil (Romazicon)	6-10 min	1-2 min
Midazolam (Versed) Class: Benzodiazepine	0.5-2.5mg IV q 2-5 min	3.5-5mg	1-5 min	7-75 min	Flumazenil (Romazicon)	6-10 min	1-2 min
Fentanyl (Sublimaze) Class: Opioid	0.5-1.0mcg/kg IV q 2 min	250mcg	1-2 min	30-60 min	Naloxone HCL (Narcan) 0.04-2.0 mg IV May repeat q 2-3 min	3-5 min	2-17 minutes depending on route
Diprovan (Propofol)	0.5-1.0 mg/kg IV with additional 0.25-0.5 IV mg/kg q 1-3 min.		Ave 30 seconds	3-10 minutes	N/A		
Etomidate	0.1-0.2 mg/kg IV followed by 0.05		30 seconds to 1 minute	2-5 minutes			

	mg/kg q 3-5 min						
Ketamine	1-2 mg/kg IV over 1-2 min with additional doses of 0.5-1 mg/kg q 5-10 min lower doese may be used (0.25-0.5 mg/kg)		30 seconds or less	5-10 minutes			
HydroMorphone (Dilaudid) Class: Opioid	0.5-2mg slow IV	2mg	5 min	3-4 hrs	Naloxone HCL (Narcan)	15-30 min	2-17 minutes depending on route
Meperidine (Demerol) Class: Opioid	25-50mg IV q 5 min	150 mg	1 min	2-3 hrs	Naloxone HCL (Narcan)	5-7 min	2-17 minutes depending on route
Morphine Sulfate Class: Opioid	10 mg IV followed by maintenance dosing of 2-4 mg q 1-2 hours	12-14 mg	5-10 mins	3-5 hrs	Naloxone HCL (Narcan)	20 min	2-17 minutes depending on route

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Pediatric Procedural Sedation Medication Guidelines

Medication	Route	Dose	Maximum Cumulative Dose	Onset of Action	Duration	Time to Peak	Reversal Agent
Diazapam (Valium)	PO	0.2-0.5 mg/kg	10mg/dose	45-60 min	2-8 hrs	0.5-2 hr	Flumazenil (Romazicon)
	IV	0.05-0.1mg/ kg over 3-5 mins	0.25mg/kg	4-5 mins	1-2 hrs		
Fentanyl (Sublimaze)	IV	0.5-2 mcg/kg	50mcg/dose	Immediate	30 min - 1 hr	3-5 min	Naloxone (Narcan)
	IN	1.5-2mcg/kg	100mcg/dose	5-10 min			
Lorazepam (Ativan)	PO	0.05 mg/kg, no more than 2 mg/dose		30-60 min	4-12 hrs	2 hrs	Flumazenil (Romazicon)
	Deep IM	0.05 mg/kg/ no more than 2 mg/dose		10-20 min	4-12 hrs	1-1.5 hrs	
	IV	0.01-0.03 mg/kg over 5-10 min, no more than 2mg/dose	0.1 mg/kg or 2mg	1-5 min	4-12 hrs	1-1.5 hrs	
Midazolam (Versed)	PO syrup	0.25-0.5 mg/kg	20mg	20-30 min	1-2 hrs	1-2 hrs	Flumazenil (Romazicon)
	IM	0.1-0.15mg/kt	10 mg	5 mins	20-120mins	15-30mins	
	IV	0.05-0.1mg/kg	0.6mg/kg total dose	1-5 mins	7-75mins	3-5 mins	

			6mg				
	IN	0.2mg/kg may repeat in 15 min	10mg/dose	10 mins			
Meperidine (Demerol)	PO	1-2 mg/kg, no more than 100 mg/dose		10-15 min	2-4 hrs	Within 1 hr	Naloxone (Narcan)
	IM	0.5-2mg/kg	2mg/kg or 100mg/dose	10-15mins	2-4 hrs	Within 1 hr	
	IV	0.5-2 mg/kg	2 mg/kg Or 100 mg	~5 mins	2-3 hrs	5-7 min	
Morphine	PO	0/2-0.5 mg/kg, no more than 15 mg/dose		60 min	3-5 hrs	1 hr	Naloxone (Narcan)
	IM	0.05-0.2 mg/kg	4mg/dose	30-60 min	3-5 hrs	30-60 min	
	IV	0.05-0.1 mg/kg, may repeat dose in 5 mins	4mg/dose	5-10 mins	3-5 hrs	20 min	
Ketamine	Special Notes: Pretreat with Atropine 0.01 mg/kg with a maximum of 0.5 mg IM. Do not mix with barbiturates or Diazepam as precipitation may occur. May cause bronchospasm requiring intubation with Succinyl Choline for muscle relaxation (relative contraindication exists for Succinyl Choline in peds <16 y.o. Consider use of NDNMB). Succinyl Choline is in the Pyxis fridge medication intubation kit.						
	IM	4-5mg/kg may give repeat dose of 2-5mg/kg 5-10min after first dose	NA	3-4 mins	12-25 min	5-20 min	
	IV	1-2mg/kg over 30-60 seconds May give repeat dose 0.5-1mg/kg q 5-15 min as needed (start with small dose)	NA	30 secs	5-10 min	1 min	

Pediatric Procedural Reversal Agents

Medication	Route	Dose	Maximum Cumulative Dose	Onset of Action	Duration	Time to Peak
Flumazenil (Romazicon)	IV	Initial: 0.01 mg/kg (no more than 0.2 mg/dose) over 15 seconds. Repeat doses: same dose after 45 second then q 1min for max cumulative dose of 0.05mg/kg or 1mg total	1 mg or 0.05 mg/kg (whichever is lower)	1-2 min	< 1 hr	6-10 min
Naloxone (Narcan)	IM	0.001-0.005mg/kg/dose up to 0.1mg/kg/dose	2mg/dose	2-5 min	~30-120mins	5-15 min
	IV	0.001-0.005mg/kg/dose up to 0.1mg/kg/dose	2mg/dose	2 min	~30-120mins	5-15 min

Reference:
Lexicomp. (2025) UpToDate Lexidrug. UpToDate Inc. Retrieved August 4,2025, from http://online.lexi.com