

LEGACY HEALTH

PATIENT CARE

Policy#: 900.3311
Effective Date: OCT 1997
Last Revision Date: MAY 2016

SECTION: DRUG ADMINISTRATION

SUBJECT PROCEDURAL MODERATE AND DEEP SEDATION

POPULATION: _x Adult _x Pediatric _x Neonate

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PURPOSE:

1. To assure a consistent standard of care for adult and pediatric patients receiving medications to achieve procedural sedation.
2. To recognize that sedation represents a continuum of anesthesia. The distinction between levels of sedation and anesthesia are based on patient response and are for the purpose of describing the appropriate levels of physiological monitoring and qualifications of personnel.
3. To provide continuity of care during all phases (pre, intra and post) of diagnostic, therapeutic, or surgical procedures which are limited to a single event/procedure.
4. To describe credentialing requirements for those participating in the administration and monitoring of patients receiving sedation/anesthetic agents.
5. To provide guidelines for the nursing scope of practice in administration of sedation/anesthetic agents.

RESPONSIBLE STAFF:

Licensed independent practitioners (LIP), anesthesia providers, registered nurses

DEFINITIONS:

1. **Minimal Sedation (anxiolysis):** A drug-induced state during which patients:
 - a. Respond normally to verbal commands
 - b. Cognitive function and coordination may be altered
 - c. Ventilatory and cardiovascular function are unaffected
2. **Moderate Sedation/Analgesia:** A drug induced depression of consciousness during which patients:
 - a. Respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. *Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.*
 - b. No intervention is required to maintain a patent airway
 - c. Spontaneous ventilation is adequate
 - d. Cardiovascular function is usually maintained
3. **Deep Sedation/Analgesia:** A drug induced depression of consciousness during which patients:
 - a. Cannot be easily aroused but respond purposefully following repeated or painful stimulation. *Reflex withdrawal from a painful stimulus is NOT considered a purposeful response.*

- b. Ability to independently maintain ventilatory function may be impaired
 - c. May require assistance in maintaining a patent airway
 - d. Spontaneous ventilation may be inadequate
 - e. Cardiovascular function is usually maintained
4. **Monitored anesthesia care (MAC):** is anesthesia care that includes the monitoring of the patient by a practitioner who is qualified to administer anesthesia. Deep sedation/analgesia is included in MAC.
 5. **General Anesthesia: A drug induced depression of consciousness during which patients:**
 - a. Are not arousable, even by painful stimulation
 - b. Impaired ability to maintain ventilatory function. Patients often require assistance in maintaining a patent airway. Positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function.
 - c. Cardiovascular function may be impaired
 6. **Rescue Capacity:** Because sedation is a continuum, it is not always possible to predict how an individual will respond. A qualified practitioner with expertise in airway management and advanced life support may be required to “rescue” a patient from a deeper level of sedation than intended. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended sedation and returns the patient to the originally intended level of sedation.
 7. **Immediately available:** Present on site in the unit of care and not otherwise engaged in any other uninterruptible procedure or task.
 8. **Direct supervision:** to be physically present, or within an immediate distance, such as in the same room/procedure area and available to respond to the needs of something or someone.

Key Point: *When additional sedation is given for a procedure on mechanically ventilated patients the patient with a sedation level of Richmond Agitation Sedation Scale (RASS) -4 or -5 will be considered deep sedation.*

POLICY:

1. This policy applies to administration of procedural sedation in all Legacy Health care/service areas and freestanding facilities.
2. This policy is not applicable in care such as:
 - a. Patients receiving medication for anxiety related to nursing procedures such as nasogastric tube placement.
 - b. Patients receiving general anesthesia
 - c. The use of sedatives on ventilator supported patients in the intensive care units for facilitating therapeutic procedures such as ventilation (refer to 901.5008 Therapeutic Analgesia, Sedation, Delirium and Neuromuscular Blockade in the Critical Care Ventilated Patient)
 - d. Children’s Transport
3. The administration and supervision requirements for moderate and deep sedation is provided under the direction of the hospital Anesthesia services.
4. The policy standards apply to any patient receiving procedural sedation in any setting with any medication by any route.
5. The nurse should not participate in the sedation process if she/he believes the ability to rescue the patient is compromised based on assessed risks and the procedural setting.
6. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. Monitoring for the presence of exhaled carbon dioxide should be considered unless precluded or invalidated by the nature of the patient, procedure, or equipment.

CREDENTIALING:

A Physician Credentialing

1. Moderate and Deep Sedation are two separate and distinct privileges
2. Only sedation credentialed/qualified LIPs may order and/or manage moderate and deep sedation.

3. Anesthesia services have determined the appropriate criteria for credentialing LIPS to manage moderate and/or deep sedation.
4. The moderate and deep sedation credentialed LIP should be able to rescue patients whose level of sedation becomes deeper than initially intended
5. General anesthesia and regional anesthesia is only administered by a qualified anesthesia provider.
6. Patients receiving anesthetic induction agents such as propofol, thiopental, methohexital or etomidate should receive care consistent with that required for general anesthesia or deep sedation. It is recommended that these physicians be ACLS or PALS certified.
7. All intravenous (IV) medications for sedation must be ordered by a sedation credentialed LIP and administered with direct supervision by the credentialed LIP, as described above. The sedation credentialed LIP must be present during the initial and continued administration of IV procedural sedation.
8. Non-IV sedation for diagnostic procedures (for example, EEG) shall be administered upon sedation credentialed LIP order with the LIP responsible for patient management available and present in the facility.

Key Point: The nurse administration and/or monitoring of deep sedation or deep sedation agents is restricted to qualified competent nurses as outlined in section 3 below. For deep sedation, the registered nurse performing the patient monitoring should have no other responsibilities

B Nurse Scope of Practice and Administration of Anesthetic and Sedation Agents

1. The administration of sedating and anesthetic agents for the purpose of moderate to deep sedation exceeds the scope of practice for the LPN or unlicensed assistive personnel (UAP).
2. It is within the role and scope of the RN to administer sedating and anesthetic agents ordered by a licensed independent practitioner to produce moderate and deep sedation for the non-intubated and intubated patient under the direction of the Licensed Independent Practitioner (LIP) in accordance with the guidelines outlined in this policy.
3. The nurse administration and/or monitoring of deep sedation and deep sedation agents is restricted to qualified and competent:
 - a. Intensive care unit nurses: for patients who have a secure airway and are mechanically ventilated under direct supervision of a credentialed LIP.
 - b. Emergency Department nurses: working under the direct supervision of a credentialed emergency physician as supported by The Emergency Nurses Association and the American College of Emergency Physicians.
4. All medication selections and dosing must be ordered by an LIP.
5. At a minimum, nurses who deliver any sedation agents must complete the initial and annual sedation competencies.
6. Initial sedation competency shall include but is not limited to successful completion of the LH Sedation Self-Learning Module.
7. Annual Sedation Competency is defined by each department, based on patient population and staff learning needs. Competency shall be evaluated through either clinical demonstration or didactic educational program(s).
8. Nurse must have knowledge of and be able to apply in practice:
 - a. Anatomy and physiology, including principles of oxygen delivery, transport and uptake.
 - b. Advanced Life Support: current ACLS, PALS or NRP Certification.
 - c. Successful demonstration of competency in pharmacology for sedating/anesthetic agents.
 - d. Appropriate nursing interventions in the event of complications or untoward outcomes.
 - e. ASA physical status classification.

C Setting for Procedural Sedation

1. Under the direction of the sedation credentialed LIP, the nurse may administer procedural moderate sedation (including sedation pharmacological agents) in any setting (office, clinic, hospital acute care). Medication selection and dosing must be ordered by an LIP.
2. Patients receiving deep sedation must be in an acute care hospital setting

Key Point: *Nurses may NOT administer procedural sedation to **adult** patients with an ASA score of IV unless the patient is in an acute care setting*

Key Point: *Nurses may NOT administer procedural sedation to **pediatric** patients with an ASA score of III or IV unless the patient is in an acute care setting*

3. Each individual patient may respond differently to different types of medications which may require a change in their level of sedation during the procedure. For this reason all patients scheduled for invasive interventions in procedure based departments, e.g. Cath Lab and Endo, are required to be assessed by the LIP pre-procedure as outlined in the responsibilities below and the results of that assessment documented in the patient's EHR prior to entering the procedural area.

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
Pre-Procedural Physician Responsibilities	Pre-Procedural Physician Responsibilities
<ol style="list-style-type: none"> 1. Evaluate the status of the patient and gain awareness of any factors that may increase the patient's risk during the procedure 2. Document: <ol style="list-style-type: none"> a. Completion of informed consent ("Consent, Refusal, Release: Verification" LH.900.1058). b. Pertinent history and physical including indications for procedure, drug allergy and previous sedation/anesthesia experience. c. Plan for sedation including ASA class, target sedation and planned medications. Identification of potential anesthesia problems particularly those that may suggest potential complications or contraindications to the planned procedure (e.g., difficult airway, ongoing infection). d. Final patient assessment including review of current vital signs immediately prior to administration of agents to achieve sedation. e. Time out 	<ol style="list-style-type: none"> 1. Evaluate the status of the patient and gain awareness of any factors that may increase the patient's risk during the procedure. 2. Document: <ol style="list-style-type: none"> a. Completion of informed consent ("Consent, Refusal, Release: Verification" LH.900.4058). b. Pertinent history and physical including indications for procedure, drug allergy and previous sedation/anesthesia experience. c. Plan for sedation including ASA class, airway assessment (e.g. the Mallampati on patients without a secured airway), target sedation and planned medications <i>Identification of potential anesthesia problems and additional pre-anesthesia data or information if applicable (e.g., stress tests, or additional specialist consultation).</i> d. Final patient assessment including review of current vital signs immediately prior to administration of agents to achieve sedation. e. Time out

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
Pre-Procedural RN Responsibilities	Pre-Procedural RN or Monitoring Provider Responsibilities
<p>1. Verify physician credentialing for planned procedure and procedural sedation (including planned level of sedation). Refer to the physician credentialing website on the Legacy Intranet to identify level of physician sedation credentialing.</p> <p><u>Key Point:</u> For adult patients with ASA score of IV a anesthesia provider, or a LIP competent in intubation and airway management, must be consulted to determine the appropriate setting and personnel resources for the procedure prior to sedation.</p> <p><u>Key Point:</u> For pediatric patients with an ASA score of III or IV a anesthesia provider, or a LIP competent in intubation and airway management, must be consulted to determine the appropriate setting and personnel resources for the procedure prior to sedation</p> <p>2. Verify completion of:</p> <ol style="list-style-type: none"> Consent form (“Consent, Refusal, Release: Verification” LHS.900.4058) Current History and Physical Pre-procedure checklist Documentation of potential factors which may increase the chance of complications associated with procedural sedation Time-out (“Pre-Procedure Safety and Site Verification Process for Operative and Other Invasive Procedures” LH.900.3380 Patient Care) <p>3. Assess and document:</p> <ol style="list-style-type: none"> Vital signs: blood pressure, pulse, respiratory rate/effort, temperature and pain rating Oxygen saturation Time of last food and fluid intake. Notify sedation credentialed LIP if patient has had any oral or gastric intake in the last 6 hours. If the patient has had oral or gastric intake in the last 6 hours, the physician will evaluate the patient’s NPO status, emergent or urgent need for the procedure and determine if it is safe to proceed with the procedure. See appendix A for ASA NPO/Fasting Recommendations. Sedation rating (see appendix B for LH Sedation Rating Scales). Critical care areas may use the <i>RASS Score (appendix C)</i> or MMAAS Scale according to unit guidelines. The Newborn Nursery and 	<p>1. Verify physician credentialing for planned procedure and procedural sedation (including planned level of sedation). Refer to the physician credentialing website on the Legacy Intranet to identify level of physician sedation credentialing.</p> <p><u>Key Point:</u> For adult patients with ASA score of IV a anesthesia provider, or a LIP competent in intubation and airway management, must be consulted to determine the appropriate setting and personnel resources for the procedure prior to sedation.</p> <p><u>Key Point:</u> For pediatric patients with an ASA score of III or IV a anesthesia provider, or a LIP competent in intubation and airway management, must be consulted to determine the appropriate setting and personnel resources for the procedure prior to sedation</p> <p>2. Verify completion of:</p> <ol style="list-style-type: none"> Consent form (“Consent, Refusal, Release: Verification” LHS.900.4058) Current History and Physical Pre-procedure checklist Documentation of potential factors which may increase the chance of complications associated with procedural sedation Time-out (“Pre-Procedure Safety and Site Verification Process for Operative and Other Invasive Procedures” LH.900.3380 Patient Care) <p>3. Assess and document:</p> <ol style="list-style-type: none"> Vital signs: blood pressure, pulse, respiratory rate/effort, temperature, and pain rating Oxygen saturation Time of last food and fluid intake. Notify sedation credentialed LIP if patient has had any oral or gastric intake in the last 6 hours. If the patient has had oral or gastric intake in the last 6 hours, the physician will evaluate the patient’s NPO status, emergent or urgent need for the procedure and determine if it is safe to proceed with the procedure. See appendix A for ASA NPO/Fasting Recommendations. Sedation rating (see appendix B for LHS Sedation Rating Scale). Critical care areas may use the Critical care areas may use the <i>RASS Score (appendix C)</i> or MMAAS Scale according to unit guidelines. The Newborn Nursery and NICU may use the Neonatal

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
<p>NICU may use the Neonatal Pain, Agitation and Sedation Scale (NPASS) per unit guidelines.</p> <ul style="list-style-type: none"> e. Allergies f. Current medications, dosage and time last administered. Include use of alcohol, illicit drugs and other non-prescription medications g. If applicable, transportation home, other than patient. Confirm adult is escorting patient. Advise patient not to drive, operate machinery or consume alcohol, including beer and wine for at least 24 hours. <p>4. Assure necessary emergency equipment and supplies are immediately available:</p> <ul style="list-style-type: none"> a. Flumazenil/Romazicon b. Naloxone HCl/Narcan c. Supplemental oxygen d. Suction device and supplies e. Bag-valve mask f. Oral and nasal airways, appropriate for age/size g. IV supplies h. Cardiac monitor i. Defibrillator (or code team readily available) j. If IV sedation is planned, establish venous access and initiate IV fluids per physician order. All patients receiving IV medications for sedation must have patent IV access from time of IV medication administration until the recovery phase. 	<p>Pain, Agitation and Sedation Scale (NPASS) per unit guidelines.</p> <ul style="list-style-type: none"> e. Allergies f. Current medications, dosage and time last administered. Include use of alcohol, illicit drugs and other non-prescription medications g. Potential factors which may increase the chance of complications associated with procedural sedation. h. General medical history including review of the physician determination of ASA classification for patients receiving deep sedation (see appendix D for ASA Physical Status Classification). i. Transportation home, other than patient. Confirm adult is escorting patient. Advise patient not to drive, operate machinery or consume alcohol, including beer and wine for at least 24 hours. <p>4. Assure necessary emergency equipment and supplies are immediately available:</p> <ul style="list-style-type: none"> a. Flumazenil/Romazicon b. Naloxone HCl/Narcan c. Supplemental oxygen d. Suction device and supplies e. Bag-valve mask f. Oral and nasal airways, appropriate for age/size g. IV supplies h. Cardiac monitor i. Defibrillator (or code team readily available)
Intra-Procedural Phase Moderate Sedation	Intra-Procedural Phase Deep Sedation
<p>1. Monitoring</p> <ul style="list-style-type: none"> a. If the monitoring is done by an RN they must have a demonstrated and documented sedation competency. b. Monitoring staff excludes the physician performing the procedure. c. The RN monitoring the patient may not engage in tasks that would compromise continual assessment. d. All patients must be continuously monitored throughout the procedure and recovery phase. Monitoring must include: <ul style="list-style-type: none"> i. Airway patency and respiratory rate via observation, stethoscope or End-tidal CO₂ ii. Pulse oximetry and heart rate iii. Intermittent blood pressure, iv. Provide EKG/cardiac monitoring if: <ul style="list-style-type: none"> 1. Patient history of significant cardiovascular disease 	<p>1. Monitoring</p> <ul style="list-style-type: none"> a. LIPs: the administration and/or monitoring must be performed by a deep sedation credentialed LIP b. Nurses: the administration and/or monitoring of deep sedation or deep sedation agents is restricted to qualified competent : <ul style="list-style-type: none"> i. Intensive care unit nurses: in patients who have a secure airway and are mechanically ventilated under direct supervision of a credentialed LIP. ii. Emergency Department nurses: working under the direct supervision of a credentialed emergency physician as supported by The Emergency Nurses Association and the American College of Emergency Physicians. iii. Nurses must have a demonstrated and documented sedation competency.

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
<p>2. Dysrhythmias are anticipated or detected</p> <p>e. Recovery phase monitoring must include: intermittent blood pressure measurements</p> <p>2. Documentation</p> <p>a. Name, dosage, route and time of administration of medications on EMAR</p> <p>b. Name and amounts of IV fluids, including blood or blood products if applicable.</p> <p>c. Time based documentation of vital signs, as well as oxygenation and ventilation parameters</p> <p>d. Monitor and document the following and level of sedation every 5 minutes, once sedation is established and during the procedure, unless contraindicated (e.g. when arousal of patient could interfere with the procedure).</p> <p>i. BP</p> <p>ii. Heart rate</p> <p>iii. Respiratory rate</p> <p>iv. Oxygen saturation via continuous pulse oximetry</p> <p>e. Monitor the patient's condition throughout the procedure and document the following at a minimum of every 15 minutes:</p> <p>i. Patient tolerance to procedure</p> <p>ii. Patient's response using an age appropriate pain scale unless contraindicated</p> <p>iii. Any complications, adverse reactions, or problems occurring during the procedure including time and description of symptoms, vital signs, treatments rendered and patient's response to treatment.</p>	<p>c. Monitoring staff excludes the physician performing the procedure.</p> <p>d. The provider or nurse monitoring the patient may not engage in tasks that would compromise continual assessment.</p> <p>e. All patients must be continuously monitored throughout the procedure and recovery phase. Monitoring must include:</p> <p>i. Airway patency and respiratory rate via observation, stethoscope or End-tidal CO₂</p> <p>ii. Pulse oximetry and heart rate</p> <p>iii. Intermittent blood pressure</p> <p>iv. EKG/cardiac monitoring</p> <p>2. Documentation</p> <p>a. Name, dosage, route and time of administration of drugs and anesthetic agents</p> <p>b. Technique(s) used and patient position(s), including insertion and use of any intravascular or airway devices</p> <p>c. Name and amounts of IV fluids, including blood or blood products if applicable.</p> <p>d. Time based documentation of vital signs, as well as oxygenation and ventilation parameters</p> <p>e. Monitor and document the following and level of sedation every 5 minutes, once sedation is established and during the procedure, unless contraindicated (for example, when arousal of patient could interfere with the procedure).</p> <p>i. BP</p> <p>ii. Heart rate</p> <p>iii. Respiratory rate</p> <p>iv. Oxygen saturation via continuous pulse oximetry</p> <p>f. Monitor the patient's condition throughout the procedure and document the following at a minimum of every 15 minutes:</p> <p>i. Patient tolerance to procedure</p> <p>ii. Patient's response using an age appropriate pain scale unless contraindicated</p> <p>iii. Any complications, adverse reactions, or problems occurring during anesthesia including time and description of symptoms, vital signs, treatments rendered and patient's response to treatment.</p>

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
Post-Procedural Phase	Post-Procedural Phase Deep Sedation
<ol style="list-style-type: none"> 1. Monitor and assess patient at least every 15 minutes, until criteria for ceasing continuous sedation monitoring (see 5 below) are met. Documentation will include: <ol style="list-style-type: none"> a. Oxygen saturation b. Vital signs c. Sedation Rating 2. Physician must complete a written post-procedure note immediately upon completion of the procedure. 3. If Flumazenil/Romazicon is administered, the patient MUST be monitored for at least 2 hours after the last dose is administered. 4. If Naloxone/Narcan is administered, the patient MUST be monitored for at least 1 hour after the last dose is administered. 5. The patient may be transferred from continuous monitoring when all of the following criteria are met: <ol style="list-style-type: none"> a. Oxygen saturation: greater than 92% or return to pre-procedural level b. Vital signs: within acceptable range or return to pre-procedural baseline c. Level of consciousness: LH Sedation Rating scale of 1 or 2, or return to pre-procedural level d. When applicable, departmental standards of care will be followed in assessing readiness for discharge from the hospital (e.g. LH Outpatient Surgical/Invasive Procedure Discharge Criteria). e. Review written discharge instructions with the patient and/or responsible adult. f. Document receipt and comprehension of discharge teaching/instructions. 	<ol style="list-style-type: none"> 1. The patient will be monitored and assessed at least every 15 minutes, until criteria for ceasing continuous sedation monitoring (see 4 below) are met. Documentation will include: <ol style="list-style-type: none"> a. Oxygen saturation b. Vital signs c. Sedation Rating 2. If Flumazenil/Romazicon is administered, the patient MUST be monitored for at least 2 hours after the last dose is administered. 3. If Naloxone/Narcan is administered, the patient MUST be monitored for at least 1 hour after the last dose is administered. 4. The patient may be transferred from continuous monitoring when all of the following criteria are met: <ol style="list-style-type: none"> a. Oxygen saturation: >92% or return to pre-procedural level b. Vital signs: within acceptable range or return to pre-procedural baseline c. Level of consciousness: LH Sedation Rating scale of 1 or 2, or return to pre-procedural level d. When applicable, departmental standards of care will be followed in assessing readiness for discharge from the hospital (e.g. LH Outpatient Surgical/Invasive Procedure Discharge Criteria). e. Review written discharge instructions with the patient and/or responsible adult. f. Document receipt and comprehension of discharge teaching/instructions. <p>Post Procedural Evaluation Deep Sedation:</p> <ol style="list-style-type: none"> 1. The evaluation must be completed and documented by any practitioner who is qualified to administer anesthesia 2. The post-anesthesia evaluation must be completed and documented no later than 48 hours after the procedure. 3. The evaluation should generally not begin until the patient is sufficiently recovered from the acute administration of the anesthesia so as to participate in the evaluation. 4. For outpatients the evaluation must be completed prior to discharge. 5. Post Procedural Evaluation must include documentation of the following: <ol style="list-style-type: none"> a. Respiratory function, including respiratory rate, airway patency and oxygen saturation b. Cardiovascular function, including pulse rate and blood pressure

Moderate Sedation/Analgesia	Deep Sedation/Analgesia
	<ul style="list-style-type: none"> c. Mental status d. Temperature e. Pain f. Nausea and vomiting g. Post-operative hydration <p>6. Patients unable to participate in the post anesthesia evaluation (e.g. post-procedural mechanical ventilation) a post anesthesia evaluation should be completed within 48 hours with a notation that the patient is unable to participate and the reason for the patient's inability to participate as well as expectations for recovery time, if applicable.</p>

Quality Planning and Monitoring:

1. Procedural sedation patient outcomes shall be monitored to identify opportunities for improvement.
 - i. Data collection: each unit that administers sedation is required to monitor pre-determined quality indicators
 - ii. Data aggregation: Quality & Patient Safety department
 - iii. Analysis and reporting: reviewed by the Quality Councils and site anesthesia department
 - iv. Follow-up as necessary, based on findings/results
2. Indicators shall be selected annually based on the previous year's results, with the exception of the following standard indicators:
 - i. Administration of reversal agents
 - ii. Need for ventilatory support with bag valve mask or intubation

Keywords:

References:

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<http://www.doh.wa.gov/hsga/professions/Nursing/documents/PracticeGuide/Sedation.pdf>

Washington Department of Health Nursing Care Quality Assurance Commission (2014) Administration of Sedating, Analgesic, and Anesthetic Agents. Retrieved 11/14/2014. www.doh.wa.gov/.../AdminOfSedating,AnalgesicAndAnestheticAgents.pdf

References: Micromedex, LexiComp, UpToDate (available through the Pharmacy intranet and Legacy Library sites)

Approval: Clinical Standards Review
 Nurse Executive Committee
 Pharmacy and Therapeutics
 Medical Executive Committees
 Medical Quality & Credentialing Committee

Originators: Sedation Policy Work Group

APPENDIX A

A

NPO/Fasting Recommendations for Non-emergent Procedures
2 hours since last intake of clear liquids
4 hours since last intake of breast milk
6 hours since last intake of solids or non-clear liquids. Clear liquids include water, fruit juices without pulp, carbonated beverages, clear tea and black coffee.
6 hours since last intake of infant formula or (non-human) milk

KEY POINT: *In the Emergency department urgent and emergent procedures requiring moderate or deep sedation may require the case be done prior to reaching full NPO time.*

NPO/Fasting Recommendations for Emergent or Urgent Procedures in the Emergency Department Only		
Oral Intake in prior 3 hours	Emergent Procedure	Urgent Procedure
Nothing	All levels of sedation	All levels of sedation
Clear liquids only	All levels of sedation	Up to and including brief deep sedation
Light snack	All levels of sedation	Up to including dissociative sedation; moderate sedation
Heavier snack or meal	All levels of sedation	Minimal sedation only

APPENDIX B**LHS SEDATION RATING SCALE**

SCORE	DESCRIPTION	SEDATION LEVEL
1	Alert, awake	
2	Drowsy, easily aroused, stays awake without further stimulation	Minimal-Moderate
3	Drowsy, needs verbal or light tactile stimuli to respond appropriately	Moderate
4	Lethargic, needs painful or repeated physical stimuli to respond appropriately	Deep
5	No response to painful or repeated stimuli	General Anesthesia
N	Not awakened, RR> 10/min, SpO2>91% or at baseline	

APPENDIX C

Richmond Agitation Sedation Scale (RASS)

Score	Term	Description
+ 4	Combative	Overtly combative, violent, immediate danger to self
+ 3	Very agitated	Pulls or removes tube(s) or catheter(s); aggressive
+ 2	Agitated	Frequent non-purposeful movements, fights ventilator
+ 1	Restless	Anxious but movements not aggressive vigorous
0	Alert and calm	
- 1	Drowsy	Not fully alert, but sustained awakening (eye opening/eye contact) to voice (≥ 10 seconds)
- 2	Light sedation	Briefly awakens with eye contact to voice (≤ 10 seconds)
- 3	Moderate sedation	Movement or eye opening to voice (but no eye contact)
- 4	Deep sedation	No response to voice, but movement or eye opening to <i>physical</i> stimulation
- 5	Unarousable	No response to <i>voice</i> or <i>physical</i> stimulation

APPENDIX D**American Society of Anesthesiologists (ASA) Physical Status Classification**

Class	Description: Patient Indicators
I	Healthy Patient
II	Patient with mild systemic disease (chronic bronchitis, moderate obesity, mild diabetes controlled with diet or oral medication, mild hypertension, anemia, or old MI)
III	Patients with severe systemic disease, that is not incapacitating (insulin-dependent diabetes, moderate to severe pulmonary insufficiency, coronary artery disease with angina, morbid obesity, asthma under treatment, immunosuppressed)
IV	Patient with incapacitating systemic disease that is a constant threat to his/her life (organic heart disease with marked cardiac insufficiency, persisting angina, intractable arrhythmia, advanced pulmonary, hepatic renal or endocrine insufficiency)
V	Moribund patient, not expected to survive 24 hours with or without procedure

APPENDIX E MODIFIED ALDRETE SCORING SYSTEM

For determining readiness to move to a different level of care

Criterion		Score Maximum Score: 10
Consciousness	Fully awake	2
	Aroused by verbal stimulus	1
	Not aroused by verbal stimulus	0
Breathing	Takes full breaths and can cough	2
	Takes only shallow breaths or has dyspnea	1
	Cannot breath without assistance (apnea)	0
Blood Pressure	Within 20% of pre-procedural value	2
	20% to 50% different from pre-procedural value	1
	Greater than or equal to 50% different from pre-procedural value	0
Oxygenation	Greater than 92% blood oxygen saturation (SpO ₂) on room air	2
	Needs supplemental O ₂ to maintain SpO ₂ greater than 92%	1
	SpO ₂ less than or equal to 90% on supplemental O ₂	0
Motor Function	Can move all 4 extremities on request	2
	Can move 2 extremities on request	1
	Cannot move any extremities on request	0

APPENDIX F**COMFORT Behavioral Scale**

Observe for 2 minutes.

TOTAL SCORE**ALERTNESS**

- 1 - Deeply asleep
- 2 - Lightly asleep
- 3 - Drowsy
- 4 - Fully awake and alert
- 5 - Hyper alert

RESPIRATORY (score only in mechanically ventilated children)**DISTRESS**

- 1 - No coughing and no spontaneous respiration
- 2 - Spontaneous respiration with little or no response to ventilation
- 3 - Occasional cough or resistance to ventilation
- 4 - Actively breathes against ventilator or coughs regularly
- 5 - Fights ventilator; coughing or choking

CRYING (if not intubated)

- 1 - Quiet breathing, no crying
- 2 - Sobbing or gasping
- 3 - Moaning
- 4 - Crying
- 5 - Screaming

PHYSICAL MOVEMENT

- 1 - No movement
- 2 - Occasional, slight movement
- 3 - Frequent, slight movements
- 4 - Vigorous movement
- 5 - Vigorous movements including torso and head

MUSCLE TONE (after stimulation)

- 1 - Muscles totally relaxed; no muscle tone
- 2 - Reduced muscle tone
- 3 - Normal muscle tone
- 4 - Increased muscle tone and flexion of fingers and toes
- 5 - Extreme muscle rigidity and flexion of fingers and toes

FACIAL TENSION

- 1 - Facial muscles totally relaxed
- 2 - Facial muscle tone normal; no facial muscle tension evident
- 3 - Tension evident in some facial muscles
- 4 - Tension evident throughout facial muscles
- 5 - Facial muscles contorted and grimacing