# **Policy**: Sedation Analgesia by Non-Anesthesiologist

| **ORGANIZATIONAL: Affects two or more departments.** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Folder** | Organizational Choices: Medication | | | **Sub-Folder** (If Applicable) | **Medical Staff** | | |
| **Original Effective Date** | 1/1/1996 | **Scope** | *What departments does this policy apply to? State "All" as is may apply to the entire organization.* *Any department administering sedation without a qualified anesthesia provider.* | | | | |
| **Approved** (Approver/Date) | Sedation Committee ( 3/2021); MDRDC (3/2021); MEC (3/2021) | | | | | | |
| **Last Reviewed/ Revised Date** | 3/17/2021 | **OSHA Category** (If Applicable) | II | **Standard** (If Applicable) | *n/a* | **Number of pages** | 11 |

**PURPOSE**:
To provide appropriate care for patients receiving sedation analgesia by non-anesthesiologist for procedures.

**GUIDELINES**:
To provide a structure for those administering moderate/deep sedation under the direction of an appropriately credentialed physician without the presence of a qualified anesthesia provider. This policy does not apply to the therapeutic management of pain control, anxiety, ventilated patients, urgent/emergent endotracheal intubation, peripheral nerve blocks, topical anesthetic or single dose drugs used as anxiolytics for procedures such as lumbar punctures, dressing changes, or bone marrow aspiration.

**DEFINITION:**

MINIMAL SEDATION (ANXIOLYSIS) - 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.
MODERATE SEDATION ANALGESIA – (formerly termed conscious sedation) A drug-induced depression of consciousness during which patients respond purposefully to verbal commands, (note, reflex withdrawal from a painful stimulus is not considered a purposeful response) 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.
DEEP SEDATION ANALGESIA - A drug-induced depression of consciousness during which patients cannot be easily aroused, but respond purposefully following 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 inadequate. Cardiovascular function is usually maintained.

ANESTHESIA - Consists of general anesthesia and spinal or major regional anesthesia. It does not include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

PALS: Pediatric Advanced Life Support
ENPC: Emergency Nurses Pediatric Course

OVERSIGHT, RESPONSIBILITY AND PERFORMANCE IMPROVEMENT:
The Sedation Committee, as delegated by the Medical Executive Committee, is responsible for the development of standards of practice for sedation in collaboration with the Department of Anesthesia and other departments that provide the service. The Quality Management Department, in collaboration with the Pharmacy, will be responsible for overseeing the continuous quality improvement process for assessing outcomes in patients receiving sedation (Pre-assessment completion and outcomes data). Data is collected and evaluated monthly by the Sedation Committee and submitted quarterly to the Quality Council to be incorporated into the Organizational QAPI.

CREDENTIALING AND COMPETENCY:
Sufficient qualified individuals must be present to perform the procedure and to monitor the patient throughout administration and recovery.

The individuals administering sedation and monitoring sedated patients are required to:

1) Maintain knowledge of proper dosages, administration, adverse reactions, and interventions for adverse reactions and overdoses.

2) Maintain knowledge on how to maintain an airway and rescue a patient from the next deeper level of sedation.

Physicians must complete the following in addition to the requirements shown in the table below:

1) For new applicants seeking sedation analgesia privileges, and re-applicants (at reappointment, at least biennially), the sedation analgesia competency checklist must be completed and submitted to Medical Staff Services.
2) The Hospital Board of Directors must approve request for sedation analgesia privileges initially before the privileges are considered active.

3) Written sedation analgesia quiz administered by Medical Staff Services must be successfully completed with a score of 80% or greater.

The requirements for moderate and deep sedation for adult and pediatric patients can be met by:

Table A:

| **Moderate Sedation-Adult** | |
|---|---|
| **RN** | **Physician** |
| BLS/ACLS, biennially | Successful completion of written sedation test, biennially. |
| Education in sedation analgesia to include Capnography (ETCO2) | **OR-** physicians with core privileges |
| Physicians with core privileges that include moderate sedation analgesia for **ADULTS** include: Emergency Medicine (ABOEM or ABEM Board Certified), | |

| **Deep Sedation-Adult** | |
|---|---|
| **RN - monitor only** | **Physician** |
| BLS/ACLS, biennially | BLS & ACLS, biennially, if required by Life Support Completion Courses policy |
| Education in sedation analgesia to include Capnography (ETCO2) | Successful completion of written sedation test, biennially. |
| | **OR-** physicians with core privileges |
| **ED Sedation Nurse** | |
| Refer to ED department specific policy regarding requirements for performing deep sedation in the ED. | |
| Physicians with core privileges that include deep sedation analgesia for **ADULTS** include: Emergency Medicine (ABOEM or ABEM Board Certified), | |

| Pediatric is defined by: patients under the age of 18 AND weighing less than 50kg | |
|---|---|
| **Moderate Sedation-Pediatric** | |
| **RN** | **Physician** |
| PALS and/or ENPC, biennially | Successful completion of written sedation test, biennially. |
| Education in sedation analgesia to include Capnography (ETCO2) | **OR-** physicians with core privileges |
| Physicians with core privileges that include moderate sedation analgesia for **PEDIATRICS** include: Emergency Medicine (ABOEM or ABEM Board Certified), | |

| **Deep Sedation-Pediatric** | |
|---|---|
| **RN** | **Physician** |
| PALS and/or ENPC, biennially | BLS & PALS, biennially, if required by Life Support Completion Courses policy |
| Education in sedation analgesia to include Capnography (ETCO2) | Successful completion of written sedation test, biennially. |
| | **OR-** physicians with core privileges |
| **ED Sedation Nurse** | |
| Refer to ED department specific policy regarding requirements for performing deep sedation in the ED. | |
| Physicians with core privileges that include deep sedation analgesia for **PEDIATRICS** include: Emergency Medicine (ABOEM or ABEM Board Certified) . | |

**PROCEDURE**:

CONSULTATION OF ANESTHESIA:

The following are triggers that may indicate the patient's condition is compromised and a consultation with Anesthesia may be necessary: the goal is to avoid over sedation and involve anesthesia prior to an airway is being lost or compromised. Notify procedural physician for consideration of anesthesia consult if the following are present:

1) ETCO2 greater than 50 with a proper waveform on the capnography
2) Respiratory rate less than 8 indicating possible narcotization
3) Difficulty maintaining patient comfort during sedation with increased dose requirements

4) Patient unable to remain still during procedure despite increased dosing requirements
5) ANY difficulty maintaining a patent airway… If the patient requires jaw thrust or oral airway CONSIDER the potential need for consulting anesthesia.
6) When in doubt... call anesthesia to evaluate CRNA #6937

PRE-PROCEDURE:

1) A health history is required to be taken prior to the procedure on all patients receiving sedation. A nurse may collect this information and the physician corroborates the data with his signature. The health history includes a minimum documentation of:

A. Current medications and dosages.
B. Allergies, including past adverse drug reactions.
C. Previous reactions/problems with sedation or anesthesia
D. Recent/frequent/repeated exposure to sedation/analgesia
E. History of sleep apnea
F. Comorbid conditions.
G. Pregnancy status
H. Indication/symptoms for procedure requiring sedation.
I. Time of last food and fluid intake should be determined and should be considered in the application of sedation analgesia.

| **Ingested Material** | **NPO Recommendation** |
|---|---|
| Clear liquids | minimum 2 hours |
| Breast Milk | minimum 4 hours |
| Infant formula | minimum 6 hours |
| Nonhuman milk | minimum 6 hours |
| Light meal (toast/clear liquids only) | minimum 6 hours |
| Fried/fatty foods and meat | minimum 8 hours |

In the event that a patient requires sedation for an unscheduled, urgent, or emergent procedure, it shall be the judgment of the physician to administer sedation without the above NPO status or to delay the procedure until NPO status can be attained.

2) Risks, benefits, and alternatives of this type of sedation should be explained to the patient and consent signed by the physician.
3) A physical examination should be performed prior to the procedure on all patients receiving sedation; to include a minimum documentation of components:

A. Patient Evaluation of:
1. Evaluation of the airway via mallampati scoring
2. Abnormalities of major organ systems (e.g. cardiac, renal, pulmonary, neurological, metabolic, endocrine)
3. Adverse experience with sedation/analgesia, regional/general anesthesia

4. Current medications, potential drug interactions, drug allergies and nutraceuticals
5. Examination specific to procedure to be performed
6. Mental Status and neurological state
7. Baseline vital signs to include: o2 saturation with pulse ox, heart rate, respiration rate, blood pressure
8. Aldrete components
    a. Level of consciousness
    b. Respiratory
    c. BP/HR within range
    d. O2 saturation
9. Auscultation of the heart and lungs
10. Height and weight
11. History of tobacco, alcohol or substance use/abuse

B. Conduct a physical examination immediately prior to sedation. Evaluation may be obtained by anesthesia provider or supervising physician.

Exam to include:

1. Baseline vital signs to include:
    a. o2 saturation with pulse ox
    b. heart rate
    c. respiration rate
    d. blood pressure
    e. pain

4) ASA Risk classification 1-5. Status Definition:

ASA1: Normal healthy patient

ASA2: Normal patient with mild systemic disease

ASA3: Patient with a severe systemic disease that limits activity, but is not incapacitating

ASA4: Patient with an incapacitating systemic disease that is a constant threat to life

ASA5: Moribund patient not expected to survive 24 hours with or without the operation

Risk classification will be used to plan sedation. A risk of 4 or greater would require the Anesthesia Department to assist with the planning of sedation if the procedure will be performed outside of ICU, CTU, Cardiac Cath Lab, Emergency Department, Endoscopy, or Interventional Radiology

5) Confirm IV access or saline lock and patency

6) Initiate fall prevention policy

INTRA-PROCEDURE:

1) The patient must be monitored continuously throughout the procedure and documented appropriately in the EMR. Monitoring parameters include:
    a) Monitor patient ventilation and oxygenation to include:
        1. Respiratory Rate
        2. Capnography (ETCO2)
        3. Pulse oximetry
    b) Monitor hemodynamic status to include:
        1. Blood Pressure
        2. Heart Rate
        3. Electrocardiography
    c) Monitor level of consciousness to include:
        1. Response to verbal commands, when possible
        2. If verbal response is not possible, check ability to respond verbally, non-verbally ("thumbs up"), or tactile stimulation (light tapping).
    d) Pain will be assessed and documented appropriately throughout the procedure.
2) Monitoring parameters are obtained upon initial administration of sedation and then every 5 minutes throughout the duration of sedation being administered.
3) A saline lock or continuous infusing IV must be present and used for administration of IV sedation medications.
4) Confirm the physician orders for dose, rate, etc. of the sedatives.
    a) All medications will be titrated and administered according to patient's responsiveness under the direct order of a physician.
5) Confirm the presence of nearby emergency resuscitation equipment.
6) Apply O2 per nasal cannula as prescribed by the physician.
7) Apply monitoring equipment to include ETCO2. The adequacy of ventilation should be continually monitored and observed for exhaled carbon dioxide (ETCO2).
8) Keep the head of the bed elevated to prevent aspiration, if procedure allows.
9) Pain will be assessed and documented in appropriate area.
10) A "Time-Out" will be performed immediately prior to the start of the procedure to include:
    a) Patient
    b) Procedure
    c) Site
    d) All sections of "Time-Out" should be accurate and communicated clearly using active communication techniques.
    e) All staff must come to a complete stop and actively participate.

Post-Procedure:

1) Following sedation/analgesia, observe and monitor patients in an appropriately staffed and equipped area until they are near their baseline level of consciousness and are no longer at risk for respiratory depression.

2) The patient is to be continuously monitored with vital signs recorded every 5 minutes times 3, then every 15 minutes until the patient meets discharge criteria. Monitoring to include:
    a. Vital signs
    b. Oxygenation (O2), continuously (until no longer at risk for hypoxemia)
    c. Ventilation (RR)
    d. Circulation (HR)
    e. Mental status
    f. Pain
3) Patient should have a documented post-sedation aldrete completed when initially received into post-op recovery

Discharge Criteria from unit:
Discharge of the patient from the post-sedation recovery area, if applicable, when the following criteria are met:

1) A score of 8, or better, on Aldrete Scoring System (modified) or return to pre-procedure Aldrete score is required for patient discharge.
    a. If a patient is unable to meet score of 8, a physician must be notified for a discharge order.
    b. If procedure performed on a current ICU or CTU patient, and nurses have demonstrated competency to care for patients undergoing sedation, the ICU or CTU nurse may continue the care of the patient provided appropriate handoff communication occurs.
2) Patients being discharged on an outpatient basis will receive age appropriate discharge instructions directly relating to care post-conscious sedation.

CONDITIONS TO REPORT:

For adult patients these monitoring parameters will be immediately reported to physician.

1) Significant decrease (<90%) in SAO2
2) ETCO2 greater than 50 mm Hg sustained for greater than 15 minutes.
3) Marked decrease in patient responsiveness to verbal/tactile stimulation.
4) Signs and symptoms of allergic reaction, medication dose intolerance and/or severe pain. If these conditions arise, they shall be documented on appropriate forms.
5) Airway interventions required to assist ventilation.
6) Hypotension requiring intervention.
7) Need for reversal medication.
8) Recovery time greater than one hour from end of procedure to discharge.

For pediatric patients these monitoring parameters will be evaluated for possible significance and reported to the physician, as appropriate:

1) Oxygen saturation < 92%.
2) ETCO2 greater than 50 mm Hg sustained for greater than 15 minutes.
3) Abnormal BP, HR/rhythm, RR, based on age.
4) Marked decrease in patient responsiveness to verbal/tactile stimulation.
5) Changes from baseline.
6) Signs and symptoms of allergic reaction, medication dose intolerance and/or severe pain. If these conditions arise, they shall be documented on appropriate forms.
7) Airway interventions required to assist ventilation.
8) Need for reversal medication.
9) Recovery time greater than one hour from end of procedure to discharge.

| Department | Performs Moderate Sedation | Performs Deep Sedation | Orientation Requirements | Care Plan for Recovery | Discharge criteria, Aldrete score |
|---|---|---|---|---|---|
| **ICU** | x | x | Unit based orientation, PACU observation time, ACLS required, EduPath conscious sedation module, ETCO2 module | IPOC | iView |
| **CTU** | x | x | Unit based orientation, PACU observation time, ACLS required, EduPath conscious sedation module, ETCO2 module | IPOC | iView |
| **Invasive Cath Lab** | x | x | Unit based orientation, ACLS required, EduPath conscious sedation module, ETCO2 module | Documented in EHR | Documented in EHR |
| **Non-Invasive Cath Lab** | x | | Unit based orientation, ACLS required, EduPath conscious sedation module, ETCO2 module | None | Documented in EHR |
| **Endoscopy Services** | x | x | Unit based orientation, ACLS required, EduPath conscious | Documented as outcomes | Documented in EHR |

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|---|---|---|---|---|---|
| | | | sedation module, ETCO2 module | | |
| **Pediatrics** | x | | Unit based orientation, PALs required, EduPath conscious sedation module, ETCO2 module | Generated and documented in EMR | Documented in EHR |
| **Radiology** | x | | Unit based orientation, PALS, ACLS required, EduPath conscious sedation module, ETCO2 module | Generated and documented in EHR | Documented in EHR |
| **Emergency Department** | x | x | Unit based orientation, observation time with CRNA in GI Lab, ACLS/PALS/or ENPC required, EduPath conscious sedation module, ETCO2 module, Successful completion of the RN administered sedation medication test | Generated and documented in EHR | Documented in EHR |

**REFERENCES**:

ACEP Policy Statement, Procedural Sedation in the Emergency Department, Revised June 2017.

American Society of Anesthesiology, 2018. Practice Guidelines for Moderate Procedural Sedation and Analgesia 2018. Anesthesiology, 128; 437-79.

The Joint Commission, E-Dition, Effective Date January 13, 2018.

**Attachments**: (Label as Appendix A, B, C, etc.)