MINIMUM AND MODERATE SEDATION

Purpose:
To outline the management before, during, and immediately following a procedure utilizing procedural sedation.

Definitions:

Sedation- For the purpose of this policy and procedure, sedation refers to administration of a medication to provide anxiety reduction, amnesia, or analgesia during a procedure. This policy and procedure does not refer to:

1. muscle relaxants given to paralyze a patient in the intensive care units,
2. medications administered to alleviate pain following a procedure or resulting from a disease process, and/or
3. sedation given to make a patient rest comfortably e.g. the intubated patient.

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. In this stage, the following should be present:

1. Normal respirations;
2. Normal response to verbal stimulation;
3. Cardiovascular function unaffected; and
4. Intact protective reflexes. Amnesia may or may not be present. The patient is technically awake, but under the influence of the drug administered; and
5. The determination of patient monitoring and staffing requirements by the responsible physician should be based on the patient's acuity and the potential risk of complication. Staffing during minimal sedation should include one registered nurse or qualified practitioner to observe the patient's response to medication(s).

Moderate Sedation - (moderate sedation/analgesia) a drug induced depression of consciousness during which the patient:

1. Maintains protective reflexes,
2. Maintain a patent airway independently and continuously,
3. Responds purposefully to verbal commands, either alone or accompanied by light tactile
stimulation (reflex withdrawal from a painful stimulus is not considered a purposeful response), and
4. Cardiovascular function is usually maintained.

**Deep Sedation** – see Policy 5.9.2

**Location:**

Procedural sedation is administered in various departments within the organization, for example, endoscopy, cardiac cath, special procedures, oral & maxillary surgery clinic, inpatient units, etc.

**Policy:**

1. The physician shall order the pharmacological agent to be administered for sedation. An anesthesiologist is available 24 hours a day for consultation if needed. If the positioning for the procedure may compromise the airway, an Anesthesia Provider is required to administer and monitor the sedation (e.g. proning).

2. **Staffing**

   The RN will supervise periprocedural nursing care.

   Sufficient numbers of qualified personnel (in addition to the physician performing the procedure) are present during procedures using moderate sedation to:

   • Appropriately evaluate the patient prior to beginning moderate sedation,
   • Provide the moderate sedation,
   • Help with the procedure,
   • Perform the procedure,
   • Monitor the patient, and
   • Recover and discharge the patient from either the post-sedation recovery area or from LSUHSC-S.

3. **Equipment and Monitoring:**

   a. Appropriate equipment for care and resuscitation is available for monitoring vital signs including heart, respiratory rates and oxygenation using pulse oximetry equipment, and ventilation using capnography/capnometry equipment.
   b. Heart rate and oxygenation are continuously monitored by pulse oximetry and plethymographic display.
   c. Respiratory frequency and adequacy of pulmonary ventilation are monitored. Ventilation is continuously monitored by end tidal CO2 display (ETCO2).
   d. Blood pressure is measured at regular intervals (minimum of every 5 minutes during procedures).
   e. EKG/Heart Rhythm is monitored and documented every 5 minutes during the procedure.
   f. Reversal agents shall be readily available.
4. Competency Requirements:

a. Qualified individuals are trained in professional standards and techniques:
   1) To administer pharmacologic agents to predictably achieve desired levels of sedation, and
   2) To administer pharmacologic agents to reverse the level of sedation, and
   3) To monitor patients carefully in order to maintain them at the desired level of sedation.
   4) RN's (non CRNA's) must have documented initial and annual competency assessment.

b. RN's administering procedural sedation agents shall not exceed the maximum dose listed in Hospital Formulary or Nursing Policy P:50-IV Therapy – Procedural Sedation. For dosage of sedation agents and antagonists staff may refer to:
   1) Hospital Formulary
   2) Nursing Policy PI:50 -IV Therapy – Procedural Sedation
   3) Drug Inserts

c. Individuals administering procedural sedation are qualified and have the appropriate credentials to manage patients at whatever level of sedation is achieved, either intentionally or unintentionally.

d. Included in the qualifications of individuals providing procedural sedation are competency-based education, training and experience in:
   1) Evaluating patients prior to performing procedural sedation.
   2) Managing a compromised airway, and providing adequate oxygenation and ventilation. (Completion of an ACLS/PALS course, or the equivalent, based on the patient's age is required. RN's must follow the requirements as written in Nursing Policy P-51, IV Therapy - Procedural Sedation Guidelines).
   3) Performing procedural sedation including methods and techniques required to rescue those patients who unavoidably or unintentionally slip into a deeper-than-desired level of sedation or analgesia (i.e., Practitioners who have appropriate credentials and are permitted to administer procedural sedation are qualified to rescue patients from deep sedation).

5. The RN managing the care of the patient receiving procedural sedation shall not leave the patient unattended or otherwise compromise continuous monitoring and shall have no other responsibilities.

6. Prior to pharmacologic agent administration:

a. Explain/reinforce, with the patient:
   - Sedation purpose

b. Confirm IV access and immediate availability of antagonists, emergency medication/equipment, crash cart, equipment for monitoring vital signs (heart rate/rhythm & respiratory rate) and oxygenation using pulse oximeter, equipment for monitoring ETCO2, blood pressure machine, suction, oxygen, and airway/intubation equipment. IV access is required for all patients receiving procedural sedation regardless of sedation route.

c. The physician pre-procedure assessment shall be documented in the electronic health record (EHR). It shall include a history of family/personal problems with anesthesia/sedation, auscultation of the heart and lungs, airway evaluation, pertinent physical exam, review of abnormal laboratory results, ASA classification and evaluation of blood/blood component requirements (if applicable). Additionally, the physician shall obtain informed consent;
document a pre-procedure diagnosis and plan, and a sedation plan. The physician shall review and update the history and physical, patient's allergies, current medications, and NPO status prior to the procedure. Immediately before beginning moderate procedural sedation, the patient is reevaluated by a physician, who makes the determination that the patient is a suitable candidate to undergo the planned sedation. The RN (non-CRNA) shall not monitor:

1) An adult patient with an ASA classification higher than Class III, and/or
2) A pediatric patient with an ASA classification higher than Class II.

d. If history/physical has been completed within the last 30 days and is available on the EHR, staff shall document significant changes in patient status or that the patient has been examined and there are no changes in the history/physical.

e. The RN shall assess NPO status (exception: emergency procedures), current medications, allergies/adverse reactions, tobacco/alcohol/drug use, pregnancy, and level of activity, psychological status, level of consciousness, skin, pain level, and the musculoskeletal system prior to the procedure. The RN shall document a plan of care prior to the procedure. The RN shall document pre-procedure, intra-procedure, and post-procedure assessments/interventions in the EHR.

f. The post-procedure plan shall be completed by either the MD or RN.

g. Prior to beginning procedural sedation, the RN shall notify the physician and document:

1) NPO not maintained for 6 hours for solids/2 hours for clear liquids prior to beginning procedural sedation,
2) history or symptoms of acute or chronic respiratory illness, unexplained fever, or other signs of an acute illness.

h. Post procedure, the RN shall notify the physician and document Modified PADSS/Modified Aldrete scores not meeting discharge criteria. (See Attachments A & B)

7. Patient Care

a. Document medication dosage/times and patient response, type and amount of fluids, blood/blood products administered, pertinent interventions results, and any other events of importance.

b. Monitors heart rate and oxygenation continually by pulse oximetry. Monitors ventilation continually by ERCO2 display. Monitors respiratory rate and adequacy of ventilations, heart rate/rhythm, level of consciousness (modified Ramsey Score, etc), response to verbal commands, pain intensity, and blood pressure (except when blood pressure monitoring will interfere with ability to maintain sedation). Documents as noted below:

1) Obtain and document baseline findings prior to the procedure.
2) Monitor all parameters continuously during the procedure, documenting at least every 5 minutes and more often as indicated. Attach monitor strip to patient record if able to obtain a monitor strip.
3) Monitor and document a minimum of every 15 minutes x 2 following the procedure.
   If a reversal agent has been used, monitor and document at least every 15 minutes x 4 following the procedure. Ensure the patient meets the following discharge criteria:
   a) Stable vital signs and oxygen saturation,
   b) Returns to pre-sedation level of consciousness and/or until patient is completely arousable and responsive and/or responding appropriately for age, and
   c) Able to ambulate with minimal assistance if tolerated by physical status and surgical procedure. The pediatric patient’s activity/mobility level is appropriate for
their age.

d) Along with the individual evaluation, the patient must have a score of greater than or equal to 9, based on the Modified Post Anesthesia Discharge Scoring System or the Modified Aldrete Scoring System, prior to discharge home. Refer to Attachment A & B.

e) If discharge criteria are not met, the physician shall be notified. The physician must reassess the patient and determine appropriate action.

c. Continuously monitor the patient during the procedure and until protocol is discontinued for the following complications. Staff shall initiate emergency protocols, notify the physician, document complications and complete a variance report for the following:

1) Signs and symptoms suggesting respiratory distress or airway impairment
2) Signs and symptoms suggesting pharmacologic overdose, and
3) Signs and symptoms suggesting unexpected drug effect.

8. Discharge instructions will be given and documented. Outpatients will be discharged to a responsible adult who will accompany them from the clinic/hospital. If there is no responsible adult available, the patient may be admitted to the 23-hour observation unit, etc.

9. Outpatients will be escorted by clinic/hospital personnel to appropriate exit or waiting room.

10. Outcomes of patients undergoing sedation are collected and analyzed in the aggregate to identify opportunities to improve patient care.

Administrator

6/19/13

Date

Approved by Clinical Board: 11/21/00, 1/20/04, 5/17/05, 6/17/08, 6/21/11, 6/19/13
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Attachment A

Table 4. Revised Post-Anesthesia Discharge Scoring System (Modified PADSS)

Vital Signs
2 = BP + pulse within 20% of preoperative value
1 = BP + pulse within 20% to 40% of preoperative value
0 = BP + pulse > 40% of preoperative value

Ambulation
2 = steady gait/no dizziness, consistent with preoperative level
1 = with assistance
0 = unable to ambulate/assess

Nausea and vomiting
2 = minimal/no treatment needed
1 = moderate/treatment effective
0 = severe/treatment not effective

Pain
VAS – Visual Analog Scale (e.g. Numerical Pain Intensity, Wong-Baker Faces)
2 = VAS of 0-3, the patient has minimal or no pain prior to discharge
1 = VAS of 4-6, the patient has moderate pain
0 = VAS of 7-10, the patient has severe pain

Surgical bleeding
2 = minimal, does not require dressing change
1 = moderate, required up to two dressing changes with no further bleeding
0 = severe, required three or more dressing changes and continues to bleed

Note: Maximum total score is 10; patients scoring 9 or 10 are considered fit for discharge home.
Attachment B

Modified Aldrete Scoring System

Respiration:
2 = able to deep breathe and cough freely
1 = dyspnea
0 = apnea

O₂ Saturation
2 = Maintains SpO₂ > 92% on room air
1 = Needs O₂ inhalation to maintain O₂ saturation > 90%
0 = O₂ saturation < 90% even with supplemental oxygen

Activity (age appropriate, surgery):
2 = able to move 4 extremities voluntarily or on command
1 = able to move 2 extremities voluntarily or on command
0 = unable to move any extremities

Consciousness:
2 = fully awake
1 = Arousable on calling
0 = nonresponsive

Circulation:
2 = BP± 20mm Hg preop
1 = BP ± 20-50mm Hg preop
0 = BP ± 50 Hg preop

Adequate recovery is achieved if modified Aldrete score is > 9.