PURPOSE:
1. To provide the policy and guidelines to ensure positive patient outcomes in patients receiving moderate sedation by a registered nurse under a physician's order and supervision.

2. In recognition that sedation is a continuum, this policy is designed to provide the procedure and skill and knowledge requirements of the practitioner/RN to assure a safe, competent level of care to patients at all levels of achieved sedation – whether the level is intentional or unintentional.

DEFINITIONS:

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. Medication used for this purpose and for sedation of mechanically ventilated patients or for urgent/emergent endotracheal intubation is covered by separate protocols, i.e., pre-procedure use of oral versus refer to Nursing Process Standards IX-C Pre-Procedural Use of Oral Versed and IX-B Post-Procedure Use of Oral Versed and IX-B Post-Anesthesia Recovery and IV Sedation and Analgesia).

Moderate Sedation (“Conscious 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. Moderate sedation, also known as conscious sedation, is produced by the administration of drugs to dull or reduce a patient's pain and awareness during diagnostic or therapeutic procedures. The dose of the drug or drugs given is not intended to cause the patient to lose the ability to independently and continuously maintain a patent airway or respond appropriately to physical stimulation.
   - The intent of moderate sedation analgesia is to allay the patient's anxiety and fear of an impending diagnostic or therapeutic procedure and to facilitate rapid return to pre-sedation state.
   - For procedural use of oral Versed, i.e., CT scan, closed reduction, laceration repair in ER, refer to Nursing Process Standard IX-B – Post Anesthesia Recovery and IV Sedation and Analgesia.

Deep Sedation/Analgesia: (aka MAC or "monitored anesthesia care") 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. Deep sedation and analgesia is restricted to use by an anesthesia provider.

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.

POLICY:
1. All physicians performing moderate sedation analgesia will be credentialed to do so by the Hospital Credentialing Committee.

2. All patients receiving moderate sedation analgesia, who are not attended to by members of the Anesthesia Department, shall be monitored by a qualified registered nurse during the procedure. A qualified registered nurse is a registered nurse who has successfully completed and is current in the required competencies for moderate sedation analgesia. The qualified registered nurse administering conscious sedation must be ACLS certified and have no other responsibilities other than giving medications and monitoring the patient.
3. The qualified registered nurse may administer intravenous medications to provide moderate sedation analgesia only in the presence of a credentialed physician.

4. The RN is authorized to administer the following medications according to established guidelines: (see Addendum)
   a. Diazepam (Valium)
   b. Midazolam (Versed)
   c. Meperidine HCL (Demerol)
   d. Morphine
   e. Flumazenil (Romazicon)
   f. Naloxone HCL (Narcan)
   g. Naltrexone HCL (Revex)
   h. Fentanyl

5. The RN will adhere and refer to the Nursing Policy M-1-3 “Intravenous (IV) Therapy”

6. Education, evaluation and documentation of an individual’s competency in the knowledge, skills and abilities, within the scope of license, related to the management of patients receiving moderate sedation will be provided thru the use of competency-based learning, observation, and return demonstration and include:
   • the ability to determine the appropriateness of moderate sedation using Physical Status ASA Classification
   • knowledge of, and administration of, appropriate pharmacological agents to predictably achieve the desired level of sedation
   • monitoring principals to maintain desired level of sedation
   • management of compromised airways

7. Sufficient numbers of qualified personnel and equipment must be available to provide the evaluation, monitoring, and care after administration of moderate sedation. The number of qualified personnel necessary to safely perform the monitoring and completion of the procedure will be determined by the attending physician.

8. It is the responsibility of the physician to determine and document the appropriateness of the patient for receiving moderate sedation analgesia, per the pre-procedure history and physical, and the use of the Physical Status Classification of the American Anesthesiologists (see Attachment B and C)
   • Classifications of ASA I and II are desirable candidates for sedation analgesia.
   • Patient classifications of ASA III should be carefully evaluated by the physician to ensure that the magnitude of the procedure will not require the presence or involvement of anesthesia services to ensure patient safety. The physician should note this on the Pre-Procedure History and Physical with signature acknowledging ASA III classification.
   • Any procedure that fulfills the criteria for the ASA Class IV or V requires anesthesia service involvement.

9. Appropriate equipment for care and resuscitation must be readily available for monitoring vital signs including heart and respiratory rates and oxygenation using pulse oximetry equipment.
   • Heart rate and oxygenation are to be continuously monitored by pulse oximetry.
   • Respiratory frequency and adequacy of pulmonary ventilation are to be continually monitored.
   • Blood pressure is to be measured at 5-minute intervals.
   • EKG is to be continuously monitored in all patients
   • All patients will have IV access maintained throughout the procedure.
   • Documentation of VS, oxygenation, patient response and medications given is the responsibility of the RN

10. A pre-sedation or pre-anesthesia assessment is to be performed and documented by the physician for each patient before beginning moderate sedation.
11. Prior to the procedure, the physician will discuss the risks, benefits and alternatives to sedation with the patient and family. A signed informed consent will be placed in the patient's medical record.

12. When appropriate by the nature of the procedure, the Hospital wide Policy 1.618 "Correct Surgical/Procedural Site" will be adhered to and the Procedure Site Confirmation Form utilized to assure correct site, side and procedure.

13. A pre-procedural “time-out” will be performed and documented immediately prior to beginning the procedure to verify patient identification and correct procedure. The IV Conscious Sedation form will be used for documentation.

14. The patient’s post procedure status will be assessed and documented on admission to, and every 15 min. times 2, q 30 min times one and q 1 hr. until the pts returns to their pre-procedural state and is ready for discharge from the post-sedation recovery area. Patients are discharged from the post-sedation recovery area and the facility by a qualified licensed independent practitioner or according to criteria approved by the medical staff.

15. If reversal agents are given, sufficient time before discharge (up to two hours) should have elapsed after the last administration to ensure that patients do not become re-sedated after reversal effects have abated.

16. Outcomes of patients receiving moderate sedation will be collected and analyzed to identify opportunities to improve care.

AGE SPECIFIC CONSIDERATIONS:

The Pediatric Patient

Administering moderate sedation to the pediatric patient is a safe and effective method of controlling agitation and discomfort in the child; however the pediatric patient cannot be considered a small adult. There are many physiological differences that must be considered:

- Cardiac output is very dependent on heart rate
- Stroke volume is limited by an underdeveloped left ventricle
- Due to an active peripheral nervous system, hypoxia, respiratory obstruction and painful procedures may result in rapid cardiopulmonary compromise
- An increased metabolic rate can cause hypoxia to develop very rapidly
- Large tongue, short neck, small mandible, smaller upper and lower airway diameter, short stiff epiglottis may make airway management more difficult
- Assessment of level of consciousness and arousal in a child must take into consideration the developmental age of the child

In the pediatric patient, signs of respiratory obstruction require immediate intervention. These signs can include inspiratory stridor, croup, restlessness, agitation, use of intercostal muscles, hoarseness, crowing and tachypnea.

Pediatric dosing is based on the child’s age and weight (in kg).

Oral sedation is often used because it is painless and easy to administer. Intramuscular sedation is less frequently used because of the discomfort to the patient and the lack of predictability of the sedation level. When used, the preferred sites for IM administration are the vastus lateralis, ventrargluteal dorsogluteal, and deltoid muscles. Rectal sedation may be used if the child is unable to take the medication by mouth, but the level of sedation is unpredictable. IV administration allows for titration of medication to desired response. Adequate time should be given between IV doses to assess for full effect.
The Geriatric Patient
Sedation of the geriatric patient can provide a calm, comfortable environment for this population. The geriatric patient may have increased sensitivity to pharmacologic agents due to a number of physiologic changes that occur in the process of aging. These include decreased renal and hepatic blood flow, decreased hepatic microsomal enzyme activity, decreased protein binding, and decreased basal metabolic rate. These changes lead to prolonged medication half-life, a cumulative pharmacologic effect and decreased plasma clearance. Some of the medication specific considerations are listed below:

- Geriatric patients are particularly sensitive to the sedative effects of benzodiazepines. Dosage reduction of 30-50% is often required.
- Due to protein binding, reduced clearance and altered volume distribution, opioids may have a prolonged duration of action and enhanced effect. This may lead to significant cardiac or respiratory depression, especially when opioids and benzodiazepines are used in combination.
- Decreased total doses of sedative hypnotics are needed. Reduced cardiac output and reduced circulation make it important to titrate using small doses and to allow several minutes between doses to assess for full effect.
- Reduced clearance, higher plasma concentration and prolonged duration of action decrease the dosage requirement of barbiturates (when used.) Titrate, using small incremental doses, as mentioned above.

Airway management in the elderly can also be a challenge due to loss of teeth, loss of bony structure of the jaw, and obstruction from oropharyngeal tissue.

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<tr>
<th>PROCEDURE</th>
<th>KEY POINTS</th>
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<tbody>
<tr>
<td>1. Physician performing procedure will:</td>
<td>1. Signature required on procedure consent and sedation analgesia consent</td>
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<tr>
<td>• Explain procedure and sedation analgesia indications, risks/benefits and alternatives</td>
<td>• the H&amp;P and pre-induction evaluation become a permanent part of the medical record</td>
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<tr>
<td>• Complete pre-procedure History and Physical and determine appropriateness for sedation analgesia.</td>
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<tr>
<td>• Complete the Pre-Induction Evaluation prior to the start of the procedure.</td>
<td>2. RN to check credentialing by using the MD privilege/credential list</td>
</tr>
<tr>
<td>2. Registered Nurse sending patient to procedure will:</td>
<td>• Ensure patient understanding; answer questions as needed</td>
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<tr>
<td>• Verify that physician is credentialed. If not credentialed, discuss with physician and supervisor.</td>
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<tr>
<td>• Complete pre-procedure evaluation questions through “History” if not already done.</td>
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<tr>
<td>• Witness signature of consents (procedure and sedation analgesia) if needed.</td>
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<tr>
<td>• Verify that patient has designated driver post-procedure.</td>
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<tr>
<td>• Administer pre-procedure medication per order.</td>
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<tr>
<td>3. Qualified RN assisting physician will:</td>
<td>3. Ensure patient understanding; answer questions</td>
</tr>
<tr>
<td>• Verify that pre-procedure History and Physical is complete and consents signed.</td>
<td>• Use the Conscious Sedation form for documentation</td>
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<tr>
<td>• Obtain baseline assessment and vital signs and document.</td>
<td>• Per attached guidelines, dosages that exceed the defined range must be administered by the ordering physician.</td>
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<tr>
<td>• Prepare patient for procedure and administer meds per physician order.</td>
<td>• document per procedure guidelines.</td>
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<tr>
<td>• Monitor patient during procedure</td>
<td>• Contact physician regarding any significant changes.</td>
</tr>
<tr>
<td>• Upon completion of procedure, monitor until discharge criteria is met. (see attached)</td>
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</tbody>
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## PROCEDURE

4. Registered Nurse discharging patient will:
   - Instruct patient and responsible adult and ensure understanding.
   - If reversal agents are given, sufficient time before discharge (up to two hours) should have elapsed after the last administration.
   - Verify that patient is not driving and discharge accompanied by responsible adult.
   - Contact physician for discharge order.

## KEY POINTS

4. Use verbal and written instruction
   - to ensure pt does not become re-sedated
   - Ambulatory Surgery RN to address with pt. and driver – note made in nurses notes
   - Document pt. status

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**References:**

- AORN, CRNA, and ANA Recommended Practice/Position Statement
- JCAHO Standards
- AHA Position Statement
- Sedation, Anesthesia and the JCAHO, Third Edition, Dean F. Smith M.D 2005

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**Approved by:**

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<td>President</td>
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<td>Director of Surgical Services</td>
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**Review Dates**

- 11/98, 5/03
- 8/10, 8/11
- 7/97, 10/00
- 06/01, 05/02
- 10/04, 10/05
- 10/06, 10/07
- 10/08, 3/09

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**Revised Dates**

- 11/98, 5/03
- 8/10, 8/11
- 7/97, 10/00
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