Name: ______________________________ Department: ___________________

I hereby request privileges to administer Moderate Sedation in accordance with the INOVA Health System. INOVA Fairfax Hospital Policy titled “Care of Moderately Sedated Adult Patients for Diagnostic and Therapeutic Procedures” and in conjunction with the clinical privileges I have been granted (copy attached).

I have reviewed the Policy, read the Moderate Sedation Education Packet, and completed the Moderate Sedation Test. I have enclosed my answers to the test. I am also enclosing documentation of current certification in ONE of the following:

- Advanced Cardiac Life Support (ACLS)
- Pediatric Advanced Life Support (PALS)
- Advanced Trauma Life Support (ATLS)

I agree to comply with all policies and procedures regarding moderate sedation.

Signature: _____________________________________________ Date: ____________

Do Not Write Below This Line

Recommendation of Department Chair or Section Chief

___ Recommend  ___ Not Recommend

Signature: _____________________________________________ Date: ____________

Recommendation of Credentials Committee

___ Recommend  ___ Not Recommend

Signature: _____________________________________________ Date: ____________

Recommendation of Medical Executive Committee

___ Recommend  ___ Not Recommend

Signature: _____________________________________________ Date: ____________

Recommendation of Inova Health Care Services Board

___ Approved  ___ Denied

Signature: _____________________________________________ Date: ____________

Revised 2/2012
Inova Health System
Moderate Sedation Packet

Contents:

1. Inova Fairfax Moderate Sedation Credentialing Criteria
2. Inova Health System Moderate Sedation Policy
3. Geriatric Patient Fact Sheet
4. Review Attached PowerPoint
5. Article 1: Standards for Basic Anesthesia Monitoring
6. Article 2: Advisory on Granting Privileges for Deep Sedation to Non-Anesthesiologist Sedation Practitioners
7. Moderate Sedation Quiz
8. Moderate Sedation Competency Assessment Form

Instructions for completion:

This packet was designed to be used as a self-learning packet, in a classroom, or in a small group setting (such as a staff meeting). The policy and PowerPoint should be used to complete the Moderate Sedation Test. After completion of the packet, the Moderate Sedation Competency Assessment form for nursing or the Physician credentialing process should be completed.
# Initial Privileges

**Current Policy**

1. Review Inova Learning Network Moderate Sedation Module with successful score on post-test
2. Current BLS OR ACLS OR ATLS

**Approved Changes**

1. Review of Inova Learning Network Moderate Sedation Module with successful score on post-test
2. Current ACLS OR Current ATLS OR Completion of a procedural sedation course approved by American Society of Anesthesiologists (ASA) OR Completion of a nationally recognized advanced airway course OR Documentation of twelve (12) successful/uncomplicated moderate or deep sedation procedures in the past two years

### Re-Appointment of Moderate Sedation Privileges

**Current Policy**

The current policy implies that the same requirements (successful completion of the self-learning module and BLS, ACLS, ATLS, or an airway course) are required for re-appointment.

**Approved Changes**

1. Document of twelve (12) successful/uncomplicated moderate or deep sedation procedures in the past two years.
2. Review of ILN Moderate Section module with successful score on post test

### Note Changes:

*Approved by IFH Medical Executive Committee August 8, 2006

**Initial Privileges-** *(12) twelve procedures will remain number or procedures

*ASA was added

**Re-Appointment-** *(12) procedures will remain number of procedures and that is all that needs to be completed for re-certification. If you do not have the 12 procedures, then you will need to take the ILN course AND have a current ACLS OR ATLS OR complete a procedural sedation course OR advance airway course

*ASA was added

*A nationally recognized advance airway course was added
Section I. Purpose, Applicability, and Definitions

Purpose/Summary of Policy
To promote safe and consistent care for the adult patient undergoing a therapeutic or diagnostic procedure under sedation by non-anesthesia personnel throughout the Inova Fairfax Hospital campus and it’s affiliates.

The administration of Moderate Sedation by non-anesthesia personnel in the adult (18 years or older) patient for diagnostic, therapeutic, and invasive procedures in the Inova Fairfax Hospital campus and it’s affiliates will be practiced in accordance with the following policy.

Applicability
1. All Adult inpatient, operative and invasive procedure care, and emergent/urgent care facilities.
2. This policy addresses Moderate Sedation for procedures managed by all Licensed Healthcare Providers throughout the Inova Fairfax Hospital campus and its affiliates.
3. For intubated patients on continuous sedation protocols: If the procedure (diagnostic or therapeutic) requires additional sedative medications or an increase in the medications being
used to sedate for chronic ventilator management (over the baseline amount being administered), then the patient should be treated as receiving sedation and managed as per IFH moderate or deep sedation policy.

4. This policy does not apply to:
   - Anesthesia care providers, the postoperative pain service, or the palliative care services using sedation medication ordered by that service.
   - Patients who are not undergoing a diagnostic or therapeutic procedure (e.g. anxiolytic or analgesic agents administered routinely to alleviate pain and agitation, sedation for treatment of insomnia).
   - Situations where it is anticipated that the sedation will eradicate the purposeful response to verbal commands or light tactile stimulation necessitate compliance with the Deep Sedation policy.

Definition of Terms

1. **Anesthesia** consists of general anesthesia and major conduction (i.e. spinal, epidural) anesthesia. It does not include local anesthesia. General anesthesia is a drug-induced loss of consciousness during which individuals served are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Individuals served 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.

2. **Deep sedation/analgesia** is a drug-induced depression of consciousness during which individuals served cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Individuals served may require assistance in maintaining a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

3. **Moderate sedation/analgesia** is a drug-induced depression of consciousness during which individuals served 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.

4. **Minimal Sedation (Anxiolysis)** is a drug-induced state during which individuals served respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected. For situations where it is anticipated that the required sedation will eradicate a patients purposeful response to verbal commands or tactile stimulation (as distinct from reflex withdrawal from a painful stimulus) the Deep sedation guideline will prevail.

5. **Licensed Health-Care Provider** refers to:
   - Physician Members of the Medical Staff (MD, D.O.), Oral Surgeons, and Staff Affiliates who are either a Nurse Practitioner or a Physician Assistant
   - Registered Nurses (RN)
   - Residents who are under the supervision of members of the medical staff who themselves have privileges for moderate sedation, and (Residents) who have satisfactorily completed the training module referenced in this policy, may administer moderate sedation. Residents may administer moderate sedation only under the direct supervision (attending
physically present during period of sedation) of a member of the medical staff credentialed in moderate sedation. This attending/ member of the medical staff must remain immediately available during the recovery period.

- Podiatrists who are qualified by training and experience with moderate sedation and who have been granted the privilege to perform the complete history and physical examination, may request and receive the privilege for moderate sedation upon completion of the requirements outlined in this document.
- Credentialed and privileged clinical fellows.
- Pharm D, Registered Respiratory Therapists or RCIS (registered Cardiovascular Invasive specialist) who meet the competencies and required ACLS certification requirements

Section II. Credentialing and Competency

A. Personnel for Administering Sedation

1. Moderate Sedation
   a. A member of the Medical Staff will perform the proposed procedure and prescribe the medications used for moderate sedation. This member of the medical staff will be credentialed to independently perform the proposed procedure and also credentialed to independently perform the proposed procedure during the provision of moderate sedation; and the Medical Staff Member responsible for performing the procedure will be present throughout the period during which sedation is required.
   b. A Licensed Health Care Provider will administer the prescribed medications for moderate sedation and monitor the patient receiving sedation throughout the duration of the procedure. This Licensed Health Care Provider has either been credentialed (as in the case of-a staff affiliate) or obtained competency (as in the case of a RN) in the care of a patient receiving moderate sedation. Medications are administered and monitored care is provided by this Licensed Health Care Provider only under the direct observation and supervision of the Medical Staff Member performing the procedure.
   c. If requested by the Medical Staff Member or the Licensed Health Care Provider mentioned above, additional staff will be provided for their assistance or support during the diagnostic or therapeutic procedure requiring moderate sedation.
   d. The Licensed Health Care Provider caring for the patient during such a procedure will have no other responsibilities that would leave the patient unattended or compromise continuing monitoring.

2. Deep Sedation
   a. Planned deep sedation should be administered only by a licensed and credentialed Medical Staff Member.

3. Credentialing/Competency
   a. IFH campus and its affiliates maintains appropriate credentialing criteria for the privilege to administer Moderate Sedation. Members of the Medical Staff qualified to perform procedures requiring Moderate Sedation and Licensed Health Care Providers qualified to provide care of a patient during Moderate Sedation will at a minimum demonstrate the following:
      (1) Knowledge of age specific parameters of cardiac and respiratory rates
      (2) Knowledge in role in the procedure performed
(3) Knowledge of the pharmacology of the medication(s) used by identifying their actions, dosage, route, side effects, and reversal agents
(4) Skills necessary to recognize and treat complications of moderate sedation
(5) Skills necessary to rescue patients from unplanned deep sedation
(6) Skills necessary to recognize a change in cardiac rhythm
(7) The skills of basic cardiopulmonary life support. All licensed health care providers performing and assisting with the procedure must have ACLS certification.

b. Credentials and Competencies are:
(1) Documented for Medical Staff Members, Staff Affiliates and Licensed Health Care Providers in their respective offices of Medical or Nursing Affairs. For the purpose of maintaining privileges, competencies are reviewed/obtained annually for Licensed Health Care Providers and credentials are reviewed/obtained every two years for a member of the Medical Staff or a Staff Affiliate. Each facility of the Inova Fairfax Hospital campus and its affiliates will maintain a list of qualified personnel.
(2) RN’s who assist with moderate sedation must have current ACLS certification
(3) **Physician INITIAL Credentialing Moderate Sedation Privileges**
   (a) Documentation of twelve (12) successful/ uncomplicated moderate or deep sedation procedures in the *past two years.*
      OR
   (b) Review of Inova Learning Network Moderate Sedation Module with successful score on post-test.
      AND
   (c) Current ACLS OR Current ATLS OR
      Completion of a procedural sedation course approved by American Society of Anesthesiologists (ASA) OR
      Completion of a nationally recognized advanced airway course OR

(4) **Physician RE-APPOINTMENT Moderate Sedation Privileges**
   (a) Documentation of twelve (12) successful/ uncomplicated moderate or deep sedation procedures in the *past two years*  
      OR
   Review of ILN Moderate Section module with successful score on post test
   AND
   (b) Current ACLS OR Current ATLS OR
      Completion of a nationally recognized advance airway course OR
      Completion of a procedural sedation course approved by American Society of Anesthesiologists (ASA).

**Section III. Pre-Procedure Preparation, Intra-Procedural Monitoring, Recovery, and Discharge**

A. **Goals**
   1. **Goals of Moderate Sedation**
      a. The goals of moderate sedation include, but are not limited to:
         (1) Patient Safety during a diagnostic or therapeutic procedure
         (2) Control of the Patient's behavior
2. Goals of Deep Sedation:
   a. The goals of deep sedation include all of the above, and:
      Depression of a patient's purposeful and protective responses during a diagnostic or
      therapeutic procedure

B. Criteria for Selecting Patients for Moderate Sedation
1. Patients will be NPO for solids at least 8 hours before their procedure and may have limited
   (up to 8 ounces) clear liquids 2-3 hours before their procedure (Addendum C). If a physician
   wishes to proceed with a procedure involving moderate sedation when the patient has been
   NPO for less than the recommended guidelines, it is the responsibility of the physician to
   explain to the patient the risks and benefits of undergoing moderate sedation in such a
   situation. This explanation is to be provided as part of the patient’s informed consent.
2. All weight categories except morbidly obese (defined as twice ideal body weight)
3. Stable 02 saturation greater than 90% on room air
4. No evidence of acute airway obstruction
5. No patients with uncontrolled reflux at high risk of aspiration (i.e. loss of gag reflex)
6. No aberrations in mental status which would compromise the patient's ability to follow
   commands
7. Chronic medical problems should be in a stable and controlled condition
   a. American Society of Anesthesiologists (ASA) classification 1, 2, or 3 (Addendum B)

* If the patient does not meet the above criteria, a consultation with the Department of Anesthesia
may be warranted. Responsibility for consultation with the anesthesiology department rests with the
performing physician. Should they choose to proceed without a consultation, the performing
physician should document this decision.

* The following situations may also warrant a consultation with the Department of
Anesthesiology:
   • Individuals receiving moderate sedation who do not respond purposefully to verbal
     commands, either alone or accompanied by light tactile stimulation
   • Any patient who meets the criteria for moderate sedation may still be referred to the
     Department of Anesthesia for management and scheduling of their sedation by the non-
     anesthesiologist Medical Staff Member.
   • If a patient has had a paradoxical response to sedation or anesthesia or a personal or
     family history of Malignant Hyperthermia, the Department of Anesthesiology should be
     consulted before any sedation.

C. Equipment
1. The following equipment must be available in the procedure room:
   a. Sedation record
   b. Oxygen source, cannula and masks
   c. Suction apparatus, with catheters and tonsil suction device
   d. Positive-pressure oxygen delivery system (i.e. bag/valve/mask)
e. Monitors:
   1. ECG Monitor
   2. Blood pressure monitor
   3. Pulse oximetry
   4. ETCO₂ where available

f. Equipment to institute intravenous access

e. Approved Hospital Resuscitation Cart with Defibrillator (may be located in an approved location in the procedure area)

D. Medications

1. Attached (addendum A) is a medication table with dosing guidelines and precautions. Drugs traditionally used for Deep Sedation and/or Anesthesia (such as but not limited to Ketamine, Propofol, Etomidate, and Remifentanil) will not be used by non-anesthesia care providers.

2. Medications should be given incrementally with sufficient time between doses to assess their effects. Special attention should be paid to calculate dosage on a weight basis (mg/kg or BMI) instead of using fixed doses. Adjustment of dosages may be necessary in advanced age, declining physical status, and opiate or benzodiazepine tolerance.

3. Agents Used for Moderate Sedation
   a. Midazolam (Versed)
   b. Diazepam (Valium)
   c. Lorazepam (Ativan)
   d. Morphine
   e. Meperidine (Demerol)
   f. Fentanyl

4. Agents Used for Reversal
   a. Flumazenil (Romazicon)
   b. Naloxone (Narcan)

E. Monitoring

All adult patients receiving moderate sedation by any route will have intravenous access established.

1. The following data must be continuously monitored and contemporaneously documented in the patients sedation record at 5 minute intervals (more frequently if indicated):
   a. Heart rate and rhythm
   b. Respiratory rate
   c. Pulse oximeter (SpO₂) numerical reading
   d. ETCO₂ when available
   e. Blood pressure
   f. Level of consciousness (the ability to follow verbal commands and respond to tactile stimuli)
   g. Pain assessment utilizing a 0 - 10 scoring system

2. Additionally, the patient's sedation record should reveal:
   a. Time into and time out of the procedure room
   b. Start and stop times of the procedure
   c. The type of procedure performed and an event summary
d. Medications administered with dose, time, route and effect  
"  e. IV fluid type and volume administered  
"  f. Estimated blood loss (when applicable)  
"  g. Status of patient at the conclusion of the procedure.  

F. **Documentation**  
1. Operative and Invasive procedure verification is required for patients undergoing operative and invasive procedures. This includes completion of a check list to verify: Patient Identification, presence of H&P, presence of Informed Consent, and Site Marking (if indicated).  
2. A sedation assessment is required before administration of moderate sedation and be documented in the patient’s medical record prior to the procedure being performed. The assessment consists of a patient evaluation (e.g. History and Physical), and an immediate pre-sedation assessment.  

G. **Patient Evaluation**  
1. An evaluation of the patient to assesses the suitability for sedation will be completed and signed by a Medical Staff Member prior to the procedure. This must include but is not limited to:  
   a. A general "History and Physical Examination" which is documented on an approved H&P form  
   b. Past medical and surgical history and treatments  
   c. An airway evaluation: Multiple physical or airway parameters can be used, but at a minimum the exam must include either a Mallampatti classification (grade 1 - 4) or an assessment using the following three variables: mouth opening, cervical extension and thyromental distance. The Mallampatti score must be recorded prior to the administration of any sedation. (See Addendum D)  
   d. Past and present drug history including names of medications, both prescription and self-administered (i.e. alcohol, tobacco, over-the-counter, illicit) and time of last administration  
   e. Allergies and adverse drug reactions, including latex allergy  
   f. Pre-procedure diagnosis  
   g. Results of relevant diagnostic studies  
   h. American Society of Anesthesiology (ASA) classification (see addendum B)  

H. **Pre-sedation Assessment**  
1. An immediate (i.e. at the time of the proposed procedure but prior to the administration of sedation) pre-sedation assessment must be performed. This assessment includes but is not limited to:  
   a. Baseline physiologic status including vital signs  
   b. Mental status assessment regarding orientation to person, place and time  
2. A pre-induction physical assessment will be conducted that addresses the following:  
   a. Confirms a stable condition of the patient since the completion of the general "History and Physical Examination"  
   b. Assesses areas pertinent to the procedure being performed  
   c. Auscultation of the heart and lungs with documentation  
   d. NPO status  
   e. A specific plan for sedation
f. A signed acknowledgment of informed consent which indicates that the patient or the patient's legal representative has been informed of the risks, hazards, limitations and benefits, as well as alternative treatment possibilities of the moderate sedation and the proposed procedure(s).

g. Immediate pre-induction vital signs, including oxygen saturation, will be documented on an approved sedation record prior to the administration of any sedation medication.

I. Recovery
   1. If the patient requires transport to a recovery area and is assessed by the Medical Staff Member as safe for transport, the following equipment will be available to accompany the patient:
      a. Pulse oximetry
      b. Positive-pressure oxygen delivery system (i.e. Bag/Valve/Mask) with appropriate size face mask
      c. Oxygen source with nasal cannula or face mask

   2. Post Sedation Recovery management is performed in an area where the following equipment is immediately available:
      a. Suction apparatus, with catheters and tonsil suction tips
      b. Positive-pressure oxygen delivery system
      c. Airway management equipment
      d. Blood pressure, ECG, and pulse oximetry monitoring equipment
      e. Medicines used for reversal of sedation
      f. Resuscitation equipment equivalent to that used in the sedation area

   3. Appropriate staff skilled in managing patients recovering from sedation will be in attendance to monitor:
      a. Heart rate, blood pressure, respiratory rate, continuous ECG, continuous pulse oximetry, and pain score will be documented at least every 5 minutes for at least 30 minutes post last administration of sedation medication.

J. Transfer/Discharge
   1. Inpatient recovery is considered complete and the patient's care can be transferred to the primary care team when the following criteria are met over a period of at least two consecutive 5-minute intervals:
      a. The patient is awake and aware or returns to pre-sedation level of consciousness
      b. Patient specific activities return to pre-sedation levels
      c. Stable cardiopulmonary system to pre-procedure status:
         i. Stable blood pressure within 20-30 mm Hg of the pre-procedure value and not to exceed a systolic value of 180 mm Hg or a diastolic value of 100 mm Hg
         ii. Heart rate and rhythm within normal range for age and history and within 10-30 beats of initial admission values
         iii. Respirations unlabored between 12-20 breaths per minutes, or as pre-procedure status
         iv. Breath sounds audible and clear or as pre-procedure status
         v. Oxygen saturation at least 94% on Room Air or > pre-procedure level
      d. Minimal nausea, vomiting
      e. Dressing checked (no excessive bleeding or drainage present if applicable)
      f. Swallow, gag, cough reflex present as appropriate
2. All patients receiving pharmacological reversal agents will remain under post-sedation recovery for a ninety (90) minute period following administration of such agents.

3. In the absence of meeting the above criteria, a member of the medical staff will reassess the recovering patient and give written documentation in the patient's medical record for the ability of the patient to be transferred to the location of or to the care of the primary care team.

4. If the patient is being discharged to home, the following criteria must also be met, as is appropriate for age or pre-procedure condition:
   a. Able to maintain pre-sedation mobility with minimal assistance
   b. Able to tolerate oral fluids (unless contraindicated by procedure)
   c. A responsible adult is present to escort the patient home

5. The patient and a responsible adult are given and acknowledge understanding of written discharge instructions that include but are not limited to:
   a. Information about acceptable activities following sedation
   b. Instructions for eating
   c. List of prescribed medications
   d. Warning signs and complications
   e. Physician and emergency telephone numbers

K. Measurement of Quality
   1. Each operating unit of Inova will monitor moderate sedation procedures. A quality auditing tool, based on key indicators, will be used for tracking and trending of cases. (See IFH form Addendum E). Forms and any additional data and/or referrals for quality monitoring and evaluation should be forwarded to Quality Leadership. Outcomes will be reported to nursing and medical leadership and operating unit administration.

L. Emergency Anesthesia Support
   1. Anesthesia assistance can be obtained twenty-four hours a day, seven day a week by calling the hospital operator.
## Attachment A

**MEDICATIONS COMMONLY USED IN SEDATION AND ANALGESIA**

All medications are titrated to effect

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADULT</th>
<th>GERIATRIC</th>
<th>CONSIDERATIONS</th>
<th>PRECAUTIONS</th>
</tr>
</thead>
</table>
| MIDAZOLAM   | Initially: 0.5-2 mg IV over 2 min MR q 5 min with 0.5 mg increments  
Usual dose: 2.5-5mg | Initially: 0.5-1 mg IV over 2 min MR one-half the original dose q 5 min  
Usual dose: 3.5mg | Reduce dosage if used in combination with narcotics.  
All benzodiazepines may be reversed with flumazenil. | The major side effects of the benzodiazepines are respiratory depression and hypotension with the latter averted by administering the drug slowly. |
| IV          | IV onset: 2-5 min Duration: 60-90 min Half-life: 20-50 hr |                                            |                                                                                |                                                                                                                                              |
| Onset: 15-30 min Duration: 60-120 min | 0.05 – 0.1 mg/kg usual dose | 0.05 – 0.1 mg/kg usual dose |                                                                                                                                              | Prolonged half-life with cirrhosis, CHF, obesity, and elderly.                                                                           |
| MIDAZOLAM   | 0.5 mg/kg Max: 20 mg | 0.5 mg/kg Max: 15 mg |                                                                                                                                              | Prolonged half-life with cirrhosis, CHF, obesity, and elderly.                                                                           |
| PO          | Onset: 30-45 min Duration: 60-120 min       |                                            |                                                                                |                                                                                                                                              |
| DIAZEPAM IV | Initially: 2-5mg IV over 2 min MR q 5 min in 2 mg increments | Initially: 2 mg IV over 2 min MR every 5 min with 1 mg increments | Due to poor absorption/ tissue irritation IM route NOT recommended. | Pregnancy/Lactation Class = D  
Reduce dose by 50% in cirrhosis. Avoid in severe/acute liver disease.                                                                     |
<p>| IV          | IV onset: 2-5 min Duration: 6-8 hr Half-life: 20-50 hr | 10 mg                                      |                                                                                |                                                                                                                                              |
| DIAZEPAM PO | Onset: 60-90 min Duration: 6-8 hr Half-life: 20-50 hr | 10 mg                                      |                                                                                |                                                                                                                                              |
| LORAZEPAM   | Initially: 0.05 mg/kg IV over 2 min (max 4 mg single dose) MR one-half the original dose q 10-15 min | Initially: 0.05 mg/kg IV over 2 min (max 2 mg single dose) MR one-half the original dose every 10-15 min | Do not inject intra-arterially – arteriospasm and gangrene may occur. | Prior to IV use, lorazepam injection may be diluted with an equal amount of compatible diluent.                                         |
| IV          | IV onset: 15-30 min Duration: 8-12 hr Half-life: 10-16 hr | 0.05 mg/kg                                |                                                                                | Should be administered                                                                                                                  |
| LORAZEPAM   | 0.05 mg/kg                                | 0.05 mg/kg                                |                                                                                |                                                                                                                                              |</p>
<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADULT</th>
<th>GERIATRIC</th>
<th>CONSIDERATIONS</th>
<th>PRECAUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM</td>
<td>(max 4 mg single dose)</td>
<td>(max 4 mg single dose)</td>
<td></td>
<td>deep into the muscle mass.</td>
</tr>
<tr>
<td>Onset: 30-60 min Duration:</td>
<td>8-12 hr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half-life: 10-16 hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LORAZEPAM PO</td>
<td>1-4 mg</td>
<td>1-2 mg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset: 60 min Duration:</td>
<td>8-12 hr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half-life: 10-16 hr</td>
<td></td>
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</tr>
<tr>
<td>FENTANYL IV</td>
<td>Initially: 25-50 mcg IV over</td>
<td>Initially 25 mcg IV over 2 min</td>
<td>All narcotics will potentiate the effects of benzodiazepines. May need increased</td>
<td>Caution in patients with asthma and/or COPD. Pregnancy/Lactation Class = B (Class D if used at term)</td>
</tr>
<tr>
<td>IV onset: immediate</td>
<td>2 min MR q 5 min with 25 mcg</td>
<td>MR q 5 min with 25 mcg increments</td>
<td>CNS/respiratory effects of fentanyl. Give fentanyl via slow IV infusion to prevent</td>
<td></td>
</tr>
<tr>
<td>Duration: 30-60 min</td>
<td>increments</td>
<td></td>
<td>chest wall rigidity and hypotension.</td>
<td></td>
</tr>
<tr>
<td>Half-life: 2-4 hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FENTANYL IM</td>
<td>Initially: 25-50 mcg MR q</td>
<td>Initially 25 mcg MR q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset: 3-5 min Duration:</td>
<td>5 min with 25 mcg increments</td>
<td>5 min with 25 mcg increments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half-life: 2-4 hr</td>
<td></td>
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</tr>
<tr>
<td>FENTANYL PO/</td>
<td>400 mcg</td>
<td>200-300 mcg</td>
<td>Suck on lozenge vigorously approximately 20-40 min prior to procedure</td>
<td></td>
</tr>
<tr>
<td>Transmucosal Onset:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-60 min Duration:</td>
<td></td>
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</tr>
<tr>
<td>Half-life: 2-4 hr</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>MEPERIDINE IV</td>
<td>Initially: 25-50 mcg IV over</td>
<td>Initially: 25-50 mcg IV over</td>
<td>Normeperidine (active metabolites) 15-30hrs is dependent on renal function. ClCr</td>
<td>Meperidine is contraindicated in patients taking MAO inhibitors</td>
</tr>
<tr>
<td>IV onset: 3-5 min</td>
<td>2 min MR q 5 min with 10-15</td>
<td>2 min MR q 5 min with 10-15</td>
<td>10-50 ml/min: decrease dose by 50%</td>
<td></td>
</tr>
<tr>
<td>Duration 2-4 hr</td>
<td>mcg increments</td>
<td>mcg increments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half-life: 2-4 hr</td>
<td>Max: 150 mcg</td>
<td>Max: 150 mcg</td>
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</tr>
<tr>
<td>MEPERIDINE IM</td>
<td>50 mg</td>
<td>50 mg</td>
<td></td>
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</tr>
<tr>
<td>Onset: 10-15</td>
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<tr>
<td>AGENT</td>
<td>ADULT</td>
<td>GERIATRIC</td>
<td>CONSIDERATIONS</td>
<td>PRECAUTIONS</td>
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<tr>
<td>MEPERIDINE PO</td>
<td></td>
<td>50 mg</td>
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<tr>
<td>Onset: 10-15 min</td>
<td></td>
<td>50 mg</td>
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<tr>
<td>Duration 2-4 hr</td>
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<tr>
<td>Half-life: 2-4 hr</td>
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<tr>
<td>MORPHINE IV IV onsets:</td>
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<tr>
<td>5 min</td>
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<tr>
<td>Time to max: 20 min</td>
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<tr>
<td>Duration 4-5 hr</td>
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<tr>
<td>Half-life: 3-5 hr</td>
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<tr>
<td>Initially: 2-5 mg IV</td>
<td>5-10 mg</td>
<td>5-10 mg</td>
<td>ClCr 10-50 ml/min: decrease dose by 25%</td>
<td></td>
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<tr>
<td>over 5 min MR q 5 min</td>
<td></td>
<td></td>
<td>ClCr &lt;10 ml/min: decrease dose by 50%</td>
<td></td>
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<tr>
<td>with 2-5 mg increments</td>
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<td></td>
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<tr>
<td>Initially: 1-2 mg IV</td>
<td></td>
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<td></td>
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<tr>
<td>over 5 min MR q 5 min</td>
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<tr>
<td>with 0.5-2 mg increments</td>
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<tr>
<td>MORPHINE IM Onsets:</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>30-60 min</td>
<td></td>
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<td></td>
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<tr>
<td>Duration: 4-5 hr</td>
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<tr>
<td>Half-life: 3-5 hr</td>
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<tr>
<td>5-10 mg</td>
<td>5-10mg</td>
<td></td>
<td>ClCr 10-50 ml/min: decrease dose by 25%</td>
<td></td>
</tr>
<tr>
<td>MORPHINE PO Onsets:</td>
<td>10-30 mg</td>
<td>10-30 mg</td>
<td>ClCr &lt;10 ml/min: decrease dose by 50%</td>
<td></td>
</tr>
<tr>
<td>60 min</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration: 4-5 hr</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Half-life: 3-5 hr</td>
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<tr>
<td>10-30 mg</td>
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</tbody>
</table>
**COMBINATION NARCOTIC/BENZODIAZEPINES**

ADULT- Start with sedation, 0.5-2 mg midazolam IV over 2 min followed by Fentanyl 25-50 mcg IV over 3-5 min

GERIATRIC- Start with sedation, 0.5-1 mg midazolam IV over 2 min followed by fentanyl 25 mcg IV over 3-5 min

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADULT</th>
<th>GERIATRIC</th>
<th>CONSIDERATIONS</th>
<th>PRECAUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLUMAZENIL</td>
<td>Initially: 0.2 mg IV over 15 sec</td>
<td>Initially 0.2 mg IV over 15 sec</td>
<td>Observe for re-sedation for a minimum of 90 min</td>
<td>Caution in patients addicted to benzodiazepines, Caution in patients with history of seizures, Caution in patients with history of panic attacks.</td>
</tr>
<tr>
<td></td>
<td>MR q 1 min to a max of 1 mg</td>
<td>MR q 1 min to a max of 1 mg</td>
<td>For re-sedation: MR doses at 20 min intervals with a maximum of 1 mg/dose given as 0.2 mg/min, and maximum of 3 mg/hr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For re-sedation: MR doses at 20 min intervals with a maximum of 1 mg/dose given as 0.2 mg/min, and maximum of 3 mg/hr</td>
<td>For re-sedation: MR doses at 20 min intervals with a maximum of 1 mg/dose given as 0.2 mg/min, and maximum of 3 mg/hr</td>
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<td></td>
</tr>
</tbody>
</table>

**BENZODIAZEPINE ANTAGONIST**

**NARCOTIC ANTAGONIST**

**NALOXONE**

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ADULT</th>
<th>GERIATRIC</th>
<th>CONSIDERATIONS</th>
<th>PRECAUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range 0.1-2 mg IV over 15 sec</td>
<td>Range: 0.1-2 mg IV over 15 sec</td>
<td>Observe for re-narcotization for a minimum of 90 min.</td>
<td>Caution in patients addicted to narcotics. May need higher doses with fentanyl. May not reverse cardiovascular effects of narcotics. Naloxone associated non-cardiogenic pulmonary edema has been reported throughout the dosing range: however, no direct cause and effect relationship has been elicited.</td>
</tr>
<tr>
<td></td>
<td>Post-procedural narcotic depression: 0.1-0.2 mg MR q 1 min to a max of 10 mg If patient has decreased ventilation (i.e., opiate overdose) recommend initial dose of 2 mg IV</td>
<td>Post-procedural narcotic depression: 0.1-0.2 mg MR q 1 min to a max of 10 mg If patient has decreased ventilation (i.e., opiate overdose) recommend initial dose of 2 mg IV</td>
<td>Titrato to avoid excessive reduction in analgesia</td>
<td></td>
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</tbody>
</table>
### Addendum B

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

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Healthy patient</td>
</tr>
<tr>
<td>2</td>
<td>Mild systemic disease</td>
</tr>
<tr>
<td>3</td>
<td>Severe systemic disease, not incapacitating</td>
</tr>
<tr>
<td>4</td>
<td>Severe systemic disease that is a constant threat to life</td>
</tr>
<tr>
<td>5</td>
<td>Moribund, not expected to live 24 hours irrespective of operation</td>
</tr>
</tbody>
</table>

* An E is added to the status number to designate an emergency
Addendum C
NPO Criteria for Moderate Sedation

<table>
<thead>
<tr>
<th>Solids/Non-Clear Liquids</th>
<th>Clear Liquids</th>
<th>Breast Milk</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>8 hours</td>
<td>4 hours</td>
<td></td>
</tr>
<tr>
<td>6-36 mo</td>
<td>6 hours</td>
<td>3 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>0-6 mo</td>
<td>6 hours</td>
<td>2 hours</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

1. These guidelines apply to healthy patients who are undergoing elective procedures. They are not intended for women in labor, patients with morbid obesity, diabetes mellitus, and ASA 4 classification, hiatal hernia or others prone to GE reflux. These patients should be NPO for a full eight hours prior to the scheduled procedure.
2. Examples of clear liquids include water, clear fruit juice without pulp (please note: no orange juice), carbonated beverages, clear tea, and black coffee. No more than 8 ounces in the period of 4 to 6 hours prior to the time of scheduled surgery.
Addendum D
Mallampati Scoring

In anesthesiology, the Mallampati score, also Mallampati classification, is used to predict the ease of intubation. It is determined by looking at the anatomy of the oral cavity; specifically, it is based on the visibility of the base of uvula, faucial pillars (the arches in front of and behind the tonsils) and soft palate. Scoring may be done with or without phonation. A high Mallampati score (class 4) is associated with more difficult intubation as well as a higher incidence of sleep apnea.

Scoring is as follows:

Class 1: Full visibility of tonsils, uvula and soft palate
Class 2: Visibility of hard and soft palate, upper portion of tonsils and uvula
Class 3: Soft and hard palate and base of the uvula are visible
Class 4: Only Hard Palate visible
### MODERATE SEDATION QUALITY REPORTING FORM

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Place Label Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR #:</td>
<td>DATE:</td>
</tr>
</tbody>
</table>

#### PRE-PROCEDURE ASSESSMENT INDICATORS

- **Was necessary equipment (include IV, meds, blood products, resuscitation equipment) checked/ready?**
- **Was the crash cart checked/ready?**
- **Was pre-procedure education provided to the patient?**
- **Were pre-procedure treatments & services provided [according to plan of care/protocol]?**
- **Was the pre-sedation assessment and plan of care signed by the physician?**
- **Were vital signs, NPO status, level of consciousness, and airway assessment documented immediately pre-sedation?**

#### DURING THE PROCEDURE

- **Were vital signs documented during regular intervals?**

#### POST-PROCEDURE ASSESSMENT INDICATORS

- **Were vital signs documented immediately post procedure?**
- **Were vital signs, pain, and level of consciousness documented during post-procedure period?**
- **Was pain documented using the pain scale [0-10]?**
- **Were discharge criteria met and documented?**
- **Was there documentation that a responsible adult accompanied the patient?**
- **Was an individualized pre and post procedure plan documented?**

#### POST PROCEDURE AUDIT INDICATORS

- **Was the sedation dose outside of the recommended range?**
- **Did the patient exhibit:**
  1. cardiac arrest?
  2. 02 saturation < 90% for > 1 min?
  3. a need for airway support (bag-valve-mask)?
  4. respiratory arrest?
  5. ventricular dysrhythmias or a new/abnormal ECG?
  6. tachycardia (>130 for > 5min) or 20% above baseline HR for >5 min? 
  7. bradycardia (< 50 for > 5 min) or 10% below baseline HR for >5 min?
  8. hypertension (> 20% above baseline systolic BP > 5 min)?
  9. hypotension (> 20% below baseline systolic BP for > 5 min)?
  10. pain at a level > 7 for > 15 minutes?
  11. nausea/vomiting > 90 minutes after procedure?
  12. a need for reversal agents?
- **Did the patient have an unplanned admission?**
Geriatric Patients and Moderate Sedation

Age Related Changes:

Cardiovascular System
- Increased risk of ischemic heart disease
- Decreased Cardiac Output
- Increased prevalence of cardiac dysrhythmias
- Possible decrease in cardiac reserve

Pulmonary System
- Decreased Pa02
- Decreased response to hypoxemia
- Possible orthopnea

Central Nervous System
- Increased sensitivity to opioids and benzosodiazepines
- Decreased requirement for opioids, benzosodiazepines and anesthetic agents

Body Composition
- Loss of muscle mass
- Increased body fat: Increased distribution of lipid soluble drugs and cumulative drug effects
- Decreased total body water and blood volume: High initial plasma drug concentration

Renal System
- Decreased GFR and renal tubular function: Decreased drug clearance, increased drug half-life and duration
- A normal creatinine clearance rate does not necessarily indicate normal renal function

Hepatic Function disease
- Decreased hepatic clearance: Increased drug half-life and duration

Other Considerations
- Concomitant disease plays a greater role in age in increasing the risks of Moderate Sedation. Assess the patient for a history of HTN, ischemic heart disease, CHF, COPD, renal disease, hepatic disease, diabetes and dementia.

Medication profile - review the patient's current medications. Will there be synergistic effects with the drugs prescribed for moderate sedation? If yes, reduce the dosage. Will they be cleared through the same organ (kidneys/liver)? If so, there is a potential for impaired drug clearance related to hepatic/ renal overload.
These standards apply to all anesthesia care although, in emergency circumstances, appropriate life support measures take precedence. These standards may be exceeded at any time based on the judgment of the responsible anesthesiologist. They are intended to encourage quality patient care, but observing them cannot guarantee any specific patient outcome. They are subject to revision from time to time, as warranted by the evolution of technology and practice. They apply to all general anesthetics, regional anesthetics and monitored anesthesia care. This set of standards addresses only the issue of basic anesthetic monitoring, which is one component of anesthesia care. In certain rare or unusual circumstances, 1) some of these methods of monitoring may be clinically impractical, and 2) appropriate use of the described monitoring methods may fail to detect untoward clinical developments. Brief interruptions of continual† monitoring may be unavoidable. These standards are not intended for application to the care of the obstetrical patient in labor or in the conduct of pain management.

1. STANDARD I
Qualified anesthesia personnel shall be present in the room throughout the conduct of all general anesthetics, regional anesthetics and monitored anesthesia care.

1.1 Objective –

Because of the rapid changes in patient status during anesthesia, qualified anesthesia personnel shall be continuously present to monitor the patient and provide anesthesia care. In the event there is a direct known hazard, e.g., radiation, to the anesthesia personnel which might require intermittent remote observation of the patient, some provision for monitoring the patient must be made. In the event that an emergency requires the temporary absence of the person primarily responsible for the anesthetic, the best judgment of the anesthesiologist will be exercised in comparing the emergency with the anesthetized patient’s condition and in the selection of the person left responsible for the anesthetic during the temporary absence.

2. STANDARD II
During all anesthetics, the patient’s oxygenation, ventilation, circulation and temperature shall be continually evaluated.

2.1 Oxygenation –
2.1.1 Objective –
To ensure adequate oxygen concentration in the inspired gas and the blood during all anesthetics.

2.2.1 Inspired gas: During every administration of general anesthesia using an
anesthesia machine, the concentration of oxygen in the patient breathing system shall be measured by an oxygen analyzer with a low oxygen concentration limit alarm in use.*

2.2.2 Blood oxygenation: During all anesthetics, a quantitative method of assessing oxygenation such as pulse oximetry shall be employed.* When the pulse oximeter is utilized, the variable pitch pulse tone and the low threshold alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.* Adequate illumination and exposure of the patient are necessary to assess color.*

3. VENTILATION

3.1 Objective –
To ensure adequate ventilation of the patient during all anesthetics.

3.2 Methods –
3.2.1 Every patient receiving general anesthesia shall have the adequacy of ventilation continually evaluated. Qualitative clinical signs such as chest excursion, observation of the reservoir breathing bag and auscultation of breath sounds are useful. Continual monitoring for the presence of expired carbon dioxide shall be performed unless invalidated by the nature of the patient, procedure or equipment. Quantitative monitoring of the volume of expired gas is strongly encouraged.*

3.2.2 When an endotracheal tube or laryngeal mask is inserted, its correct positioning must be verified by clinical assessment and by identification of carbon dioxide in the expired gas. Continual end-tidal carbon dioxide analysis, in use from the time of endotracheal tube/laryngeal mask placement, until extubation/removal or initiating transfer to a postoperative care location, shall be performed using a quantitative method such as capnography, capnometry or mass spectroscopy.* When capnography or capnometry is utilized, the end tidal CO2 alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.*

3.2.3 When ventilation is controlled by a mechanical ventilator, there shall be in continuous use a device that is capable of detecting disconnection of components of the breathing system. The device must give an audible signal when its alarm threshold is exceeded.

3.2.4 During regional anesthesia (with no sedation) or local anesthesia (with no sedation), the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure, or equipment.
4. CIRCULATION

4.1 Objective –
To ensure the adequacy of the patient’s circulatory function during all anesthetics.

4.2 Methods –
4.2.1 Every patient receiving anesthesia shall have the electrocardiogram continuously displayed from the beginning of anesthesia until preparing to leave the anesthetizing location.*

4.2.2 Every patient receiving anesthesia shall have arterial blood pressure and heart rate determined and evaluated at least every five minutes.*

4.2.3 Every patient receiving general anesthesia shall have, in addition to the above, circulatory function continually evaluated by at least one of the following: palpation of a pulse, auscultation of heart sounds, monitoring of a tracing of intra-arterial pressure, ultrasound peripheral pulse monitoring, or pulse plethysmography or oximetry.

5. BODY TEMPERATURE

5.1 Objective –
To aid in the maintenance of appropriate body temperature during all anesthetics.

5.2 Methods –
Every patient receiving anesthesia shall have temperature monitored when clinically significant changes in body temperature are intended, anticipated or suspected.
† Note that “continual” is defined as “repeated regularly and frequently in steady rapid succession” whereas “continuous” means “prolonged without any interruption at any time.”

* Under extenuating circumstances, the responsible anesthesiologist may waive the requirements marked with an asterisk (*); it is recommended that when this is done, it should be so stated (including the reasons) in a note in the patient’s medical record.
ADVISORY ON GRANTING PRIVILEGES FOR DEEP SEDATION TO NON-ANESTHESIOLOGIST SEDATION PRACTITIONERS
Committee of Origin: Ad Hoc on Non-Anesthesiologist Privileging (Approved by the ASA House of Delegates on October 20, 2010)

1. INTRODUCTION

The American Society of Anesthesiologists is vitally interested in the safe administration of all anesthesia services including moderate and deep sedation. As such, it has concern for any system or set of practices, used either by its members or the members of other disciplines that would adversely affect the safety of anesthesia or sedation administration. It has genuine concern that individuals, however well intentioned, who are not anesthesia professionals may not recognize that sedation and general anesthesia are on a continuum, and thus deliver levels of sedation that may, in fact, be general anesthesia without having the training and experience to respond appropriately.

ASA believes that anesthesiologist participation in all deep sedation is the best means to achieve the safest care. ASA acknowledges, however, that Medicare regulations permit some non-anesthesiologists to administer or supervise the administration of deep sedation. This advisory should not be considered as an endorsement, or absolute condemnation, of this practice by ASA but rather to serve as a potential guide to its members who may be called upon by administrators or others to provide input in this process. This document provides a framework to identify those physicians, dentists, oral surgeons or podiatrists who may potentially qualify to administer or supervise the administration of deep sedation.

This document applies only to the care of patients undergoing procedural sedation, and it may not be construed as privileges to intentionally administer general anesthesia. Unrestricted general anesthesia shall only be administered by anesthesia professionals within their scope of practice (anesthesiologists, certified registered nurse anesthetists and anesthesiologist assistants). If the patient loses consciousness and the ability to respond purposefully, the anesthesia care is a general anesthetic, irrespective of whether airway instrumentation is required.

When deep sedation is intended, there is a significant risk that patients may slip into a state of general anesthesia (from which they cannot be aroused by painful or repeated stimulation). Therefore, individuals requesting privileges to administer deep sedation must demonstrate their ability to (1) recognize that a patient has entered a state of general anesthesia and (2) maintain a patient’s vital functions until the patient has been returned to an appropriate level of sedation.

Definitions of terms appear at the end of this document. Of special note, for purposes of this document the following definitions are relevant:

1.1 Anesthesia Professional: An anesthesiologist, anesthesiologist assistant (AA), or certified registered nurse anesthetist (CRNA).
1.2 Non-anesthesiologist Sedation Practitioner: A licensed physician (allopathic or osteopathic); or dentist, oral surgeon, or podiatrist who is qualified to administer anesthesia under State law; who has not completed postgraduate training in anesthesiology but is specifically trained to administer personally or to supervise the administration of deep sedation.

2. ADVISORY

This advisory is designed to assist health care facilities in developing a program for the delineation of clinical privileges for practitioners who are not anesthesia professionals to administer sedative and analgesic drugs to establish a level of deep sedation. They are written to apply to every setting in which an internal or external privileging process is required for granting privileges to administer sedative and analgesic drugs to establish a level of deep sedation (e.g., hospital, freestanding procedure center, ambulatory surgery center, physician’s or dentist’s office, etc.). These recommendations do not lead to the granting of privileges to administer general anesthesia.

The granting, reappraisal and revision of clinical privileges will be awarded on a time-limited basis in accordance with rules and regulations of the health care facility, its medical staff, organizations accrediting the health care facility, and relevant local, state and federal governmental agencies.

NON-ANESTHESIOLOGIST SEDATION PRACTITIONERS

Note: The Hospital Anesthesia Services Condition of Participation 42 CFR 482.52(a) limits the administration of deep sedation to “qualified anesthesia professionals” within their scope of practice. CMS defines these personnel specifically as anesthesiologist; non-anesthesiologist MD or DO; dentist, oral surgeon, or podiatrist who is qualified to administer anesthesia under State law; CRNA, and AA. See also the Ambulatory Surgery Center Condition for Coverage 42 CFR 416.42(b).

Only physicians and other practitioners specifically permitted by CMS, above, who are qualified by education, training and licensure to administer deep sedation may administer deep sedation or supervise the administration of deep sedation when administered by CRNAs. Because training is procedure specific, the type and complexity of procedures for which the practitioner may administer or supervise deep sedation must be specified in the privileges granted.

Any professional who administers and monitors deep sedation must be dedicated to that task. Therefore, the non-anesthesiologist sedation practitioner who administers and monitors deep sedation must be different from the individual performing the diagnostic or therapeutic procedure (see ASA Guidelines for Sedation and Analgesia by Non-anesthesiologists).

3. EDUCATION AND TRAINING

The non-anesthesiologist sedation practitioner will have satisfactorily completed a formal training program in (1) the safe administration of sedative and analgesic drugs used to
establish a level of deep sedation, and (2) rescue of patients who exhibit adverse physiologic consequences of a deeper-than-intended level of sedation. This training may be a formally recognized part of a recently completed Accreditation Council for Graduate Medical Education (ACGME) residency or fellowship training (e.g., within two years), or may be a separate deep sedation educational program that is accredited by Accreditation Council for Continuing Medical Education (ACCME) or equivalent providers recognized for dental, oral surgical and podiatric continuing education, and that includes the didactic and performance concepts below. A knowledge-based test is necessary to objectively demonstrate the knowledge of concepts required to obtain privileges. The following subject areas will be included:

3.1 Contents of the following ASA documents (or their more current version if subsequently modified) that will be understood by practitioners who administer sedative and analgesic drugs to establish a level of deep sedation


3.1.2 Continuum of Depth of Sedation; Definition of General Anesthesia and Levels of Sedation/Analgesia (ASA HOD 2004, amended 2009)

3.1.3 Standards for Basic Anesthetic Monitoring (Approved by the ASA House of Delegates on October 21, 1986, and last amended on October 25, 2005)


3.2 Appropriate methods for obtaining informed consent through pre-procedure counseling of patients regarding risks, benefits and alternatives to the administration of sedative and analgesic drugs to establish a level of deep sedation.

3.3 Skills for obtaining the patient’s medical history and performing a physical examination to assess risks and co-morbidities, including assessment of the airway for anatomic and mobility characteristics suggestive of potentially difficult airway management. The non-anesthesiologist sedation practitioner will be able to recognize those patients whose medical condition requires that sedation needs to be provided by an anesthesia professional, such as morbidly obese patients, elderly patients, pregnant patients, patients with severe systemic disease, patients with obstructive sleep apnea, or patients with delayed gastric emptying.

3.4 Assessment of the patient’s risk for aspiration of gastric contents as described in the ASA Practice Guidelines for Preoperative Fasting. In urgent, emergent or other situations where gastric emptying is impaired, the potential for pulmonary aspiration of gastric contents must be considered in determining
3.4.1 The target level of sedation
3.4.2 Whether the procedure should be delayed
3.4.3 Whether the sedation care should be transferred to an anesthesia professional for the delivery of general anesthesia with endotracheal intubation.

3.5 The pharmacology of
3.5.1 All sedative and analgesic drugs the practitioner requests privileges to administer to establish a level of deep sedation
3.5.2 Pharmacological antagonists to the sedative and analgesic drugs
3.5.3 Vasoactive drugs and antiarrhythmics.

3.6 The benefits and risks of supplemental oxygen.

3.7 Recognition of adequacy of ventilatory function: This will include experience with patients whose ventilatory drive is depressed by sedative and analgesic drugs as well as patients whose airways become obstructed during sedation. This will also include the ability to perform capnography and understand the results of such monitoring. Non-anesthesiologist practitioners will demonstrate competency in managing patients during deep sedation, and understanding of the clinical manifestations of general anesthesia so that they can ascertain when a patient has entered a state of general anesthesia and rescue the patient appropriately.

3.8 Proficiency in advanced airway management for rescue: This training will include appropriately supervised experience to demonstrate competency in managing the airways of patients during deep sedation, and airway management using airway models as well as using high-fidelity patient simulators. The non-anesthesiologist practitioner must demonstrate the ability to reliably perform the following:

   3.8.1. Bag-valve-mask ventilation
   3.8.2 Insertion and use of oro- and nasopharyngeal airways
   3.8.3 Insertion and ventilation through a laryngeal mask airway
   3.8.4 Direct laryngoscopy and endotracheal intubation

This will include clinical experience on no less than 35 patients or equivalent simulator experience (See ACGME reference). The facility with oversight by the Director of Anesthesia Services will determine the number of cases needed to demonstrate these competencies, and may increase beyond the minimum recommended.

3.9 Monitoring of physiologic variables, including the following: 3.9.1 Blood pressure.
3.9.2 Respiratory rate.
3.9.3 Oxygen saturation by pulse oximetry with audible variable pitch pulse tone.
3.9.4 Capnographic monitoring. The non-anesthesiologist practitioner shall be familiar with the use and interpretation of capnographic waveforms to determine the adequacy of ventilation during deep sedation.
3.9.5 Electrocardiographic monitoring. Education in electrocardiographic (EKG) monitoring will include instruction in the most common dysrhythmias seen during sedation and anesthesia, their causes and their potential clinical implications (e.g.,
hypercapnia), as well as electrocardiographic signs of cardiac ischemia.
3.9.6 Depth of sedation. The depth of sedation will be based on the ASA definitions of “deep sedation” and “general anesthesia.” (See below).

3.10 The importance of continuous use of appropriately set audible alarms on physiologic monitoring equipment.

3.11 Documenting the drugs administered, the patient’s physiologic condition and the depth of sedation at five-minute intervals throughout the period of sedation and analgesia, using a graphical, tabular or automated record which documents all the monitored parameters including capnographic monitoring.

3.12 The importance of monitoring the patient through the recovery period and the inclusion of specific discharge criteria for the patient receiving sedation.

3.13 Regardless of the availability of a “code team” or the equivalent, the non-anesthesiologist practitioner will have advanced life support skills and current certificate such as those required for Advanced Cardiac Life Support (ACLS). When granting privileges to administer deep sedation to pediatric patients, the non-anesthesiologist practitioner will have advanced life support skills and current certificate such as those required for Pediatric Advanced Life Support (PALS). Initial ACLS and PALS training and subsequent retraining shall be obtained from the American Heart Association or another vendor that includes “hands-on” training and skills demonstration of airway management and automated external defibrillator (AED) use.

3.14 Required participation in a quality assurance system to track adverse outcomes and unusual events including respiratory arrests, use of reversal agents, prolonged sedation in recovery process, larger than expected medication doses, and occurrence of general anesthesia, with oversight by the Director of Anesthesia services or their designee.

3.15 Knowledge of the current CMS Conditions of Participation regulations and their interpretive guidelines pertaining to deep sedation, including requirements for the pre-anesthesia evaluation, anesthesia intra-operative record, and post-anesthesia evaluation. Separate privileging is required for the care of pediatric patients. When the non-anesthesiologist practitioner is granted privileges to administer sedative and analgesic drugs to pediatric patients to establish a level of deep sedation, the education and training requirements enumerated in #1-15 above will be specifically defined to qualify the practitioner to administer sedative and analgesic drugs to pediatric patients.

4. LICENSURE

4.1 The non-anesthesiologist sedation practitioner will have a current active, unrestricted medical, osteopathic, or dental license in the state, district or territory of practice. (Exception: practitioners employed by the federal government may have a current active license in any U.S. state, district or territory.)
4.2 The non-anesthesiologist sedation practitioner will have a current unrestricted Drug Enforcement Administration (DEA) registration (schedules II-V).

4.3 The privileging process will require disclosure of any disciplinary action (final judgments) against any medical, osteopathic or dental license by any state, district or territory of practice and of any sanctions by any federal agency, including Medicare/Medicaid, in the last five years.

4.4 Before granting or renewing privileges to administer or supervise the administration of sedative and analgesic drugs to establish a level of deep sedation, the health care organization shall search for any disciplinary action recorded in the National Practitioner Data Bank (NPDB) and take appropriate action regarding any Adverse Action Reports.

5. PERFORMANCE EVALUATION

5.1 Before granting initial privileges to administer or supervise administration of sedative and analgesic drugs to establish a level of deep sedation, a process will be developed to evaluate the practitioner’s performance and competency. For recent graduates (e.g., within two years), this may be accomplished through letters of recommendation from directors of residency or fellowship training programs that include deep sedation as part of the curriculum. For those who have been in practice since completion of their training, performance evaluation may be accomplished through specific documentation of performance evaluation data transmitted from department heads or supervisors at the institution where the individual previously held privileges to administer deep sedation. Alternatively, the non-anesthesiologist sedation practitioner could be proctored or supervised by a physician or dentist who is currently privileged to administer sedative and analgesic agents to provide deep sedation. The Director of Anesthesia Services with oversight by the facility governing body will determine the number of cases that need to be performed in order to determine independent competency in deep sedation.

5.2 Before granting ongoing privileges to administer or supervise administration of sedative and analgesic drugs to establish a level of deep sedation, a process will be developed to re-evaluate the practitioner’s performance at regular intervals. Re-evaluation of competency in airway management will be part of this performance evaluation. For example, the practitioner’s performance could be reviewed by an anesthesiologist or a non-anesthesiologist sedation practitioner who is currently privileged to administer deep sedation. The facility will establish an appropriate number of procedures that will be reviewed.

6. PERFORMANCE IMPROVEMENT

Privileging in the administration of sedative and analgesic drugs to establish a level of deep sedation will require active participation in an ongoing process that evaluates the practitioner’s clinical performance and patient care outcomes through a formal facility program of continuous performance improvement. The facility’s deep sedation
A performance improvement program will be developed with advice from and with outcome review by the Director of Anesthesia Services.

6.1 The organization in which the practitioner practices will conduct peer review of its clinicians.

6.2 The performance improvement program will assess up-to-date knowledge as well as ongoing competence in the skills outlined in the educational and training requirements described above.

6.3 Continuing medical education in the delivery of anesthesia services is required for renewal of privileges.

6.4 The performance improvement program will monitor and evaluate patient outcomes and adverse or unusual events.

6.5 Any of the following events will be referred to the facility quality assurance committee for evaluation and performance evaluation:
   6.5.1 Unplanned admission
   6.5.2 Cardiac arrest
   6.5.3 Use of reversal agents
   6.5.4 Use of assistance with ventilation requiring bag-valve-mask ventilation or laryngeal or endotracheal airways.
   6.5.5 Prolonged periods of oxygen desaturation (<85% for 3 minutes)
   6.5.6 Failure of the patient to return to 20% of pre-procedure vital signs

7. DEFINITIONS

Anesthesia Professional: An anesthesiologist, anesthesiologist assistant (AA), or certified registered nurse anesthetist (CRNA).

Non-anesthesiologist Sedation Practitioner: A licensed physician (allopathic or osteopathic); or dentist, oral surgeon, or podiatrist who is qualified to administer anesthesia under State law; who has not completed postgraduate training in anesthesiology but is specifically trained to administer personally or to supervise the administration of deep sedation.

Privileges: The clinical activities within a health care organization that a practitioner is permitted to perform.

Privileging: The process of granting permission to perform certain clinical activities based on credentials, experience, and demonstrated performance.

Credentials: The professional qualifications of a practitioner including education, training, experience and performance.
Credentialing: The process of obtaining, verifying, and assessing the qualifications of a practitioner to provide care or services in or for a healthcare organization.

Procedural sedation: The administration of sedative and analgesic drugs for a nonsurgical diagnostic or therapeutic procedure.

Definitions of the continuum of sedation:
* Moderate Sedation: “Moderate Sedation/Analgesia (‘Conscious Sedation’) is 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.”

* Deep Sedation: “Deep Sedation/Analgesia is 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.”

* Rescue: “Rescue of a patient from a deeper level of sedation than intended is an intervention by a practitioner proficient in airway management and advanced life support. The qualified practitioner corrects adverse physiologic consequences of the deeper-than-intended level of sedation (such as hypoventilation, hypoxia and hypotension) and returns the patient to the originally intended level of sedation. It is not appropriate to continue the procedure at an unintended level of sedation.”

* General 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.”

*The definitions marked with an asterisk are extracted verbatim from “Continuum of Depth of Sedation – Definition of General Anesthesia and Levels of Sedation/Analgesia” (Approved by ASA House of Delegates on October 13, 1999, and amended on October 21, 2009).

Expanded definitions of moderate and deep sedation can be found in the CMS Interpretive Guidelines.

8. REFERENCES

The American Society of Anesthesiologists has produced many documents over the years related to the topic addressed by this advisory, among them the following (in alphabetical order):
AANA-ASA Joint Statement Regarding Propofol Administration (April 14, 2004)
Continuum of Depth of Sedation – Definition of General Anesthesia and Levels of Sedation/Analgesia (Approved by ASA House of Delegates on October 13, 1999, and last amended on October 21, 2009).

Distinguishing Monitored Anesthesia Care (“MAC”) from Moderate Sedation/Analgesia (Conscious Sedation). (Approved by the ASA House of Delegates on October 27, 2004 and last amended on October 21, 2009)

Guidelines for Ambulatory Anesthesia and Surgery (Approved by ASA House of Delegates on October 11, 1973, and last amended on October 22, 2008)

Guidelines for Delineation of Clinical Privileges in Anesthesiology (Approved by ASA House of Delegates on October 15, 1975, and last amended on October 22, 2008)

Guidelines for Office-Based Anesthesia and Surgery (Approved by ASA House of Delegates on October 13, 1999, and last affirmed on October 21, 2009)

Guidelines for Ambulatory Anesthesia and Surgery (Approved by ASA House of Delegates on October 13, 1999, and last amended on October 21, 2009)

Outcome Indicators for Office-Based and Ambulatory Surgery (ASA Committee on Ambulatory Surgical Care and Task Force on Office-Based Anesthesia, April 2003)


Standards for Basic Anesthetic Monitoring (Approved by the ASA House of Delegates on October 21, 1986, and last amended on October 20, 2010)

Statement on Granting Privileges for Administration of Moderate Sedation to Practitioners Who Are Not Anesthesia Professionals (Approved by the ASA House of Delegates on October 25, 2005, and last amended on October 18, 2006)

Statement on Qualifications of Anesthesia Providers in the Office-Based Setting (Approved by ASA House of Delegates on October 13, 1999, and last amended on October 21, 2009)

Statement on Safe Use of Propofol (Approved by ASA House of Delegates on October 27, 2004 and amended on October 21, 2009)

In addition the following references may be considered:

ACGME Emergency Medicine residency program guidelines for number of intubations needed:
http://www.acgme.org/acWebsite/RRC_110/110_guidelines.asp#res


Centers for Medicare and Medicaid Services Revisions to Interpretive Guidelines for Hospital Condition of Participation, December 11, 2009.

Inova Health System  
Moderate Sedation Test Answer Sheet

Name: _______________________________________
Hospital ID Number: ____________________________

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| 3 |   | 17|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4 |   | 18|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5 |   | 19|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6 |   | 20|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7 |   | 21|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8 |   | 22|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 9 |   | 23|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|10|   | 24|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|11|   | 25|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|12|   | 26|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|13|   | 27|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|14|   | 28|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|15|   | 29|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

*Please submit completed answer sheet with packet.*
Moderate Sedation Test

Using the IHS Moderate Sedation policy, please answer the following questions.

1. Which population of patients does the IHS Moderate Sedation policy not apply to?
   A. Patients under the care of a palliative service such as Hospice
   B. Patients requiring pain medication post-op
   C. Patients undergoing a procedure that anticipates sedation to eradicate purposeful response to commands
   D. All of the above

2. A patient undergoing moderate sedation should be able to respond purposefully to verbal commands, with no interventions to maintain a patent airway.
   A. True____  B. False____

3. Which of the following is not a goal of Moderate Sedation?
   A. Depression of the patient’s protective reflexes, responds to painful stimuli only
   B. Patient safety
   C. Control of the patient’s behavior during the procedure
   D. Return to the patient’s pre-treatment level of consciousness

4. When selecting Moderate Sedation for a patient, which of the following criteria would automatically warrant a consultation to the Department of Anesthesia?
   A. Stable O2 Sanitation
   B. A personal or family history of Malignant Hyperthermia
   C. No evidence of airway obstruction
   D. No uncontrolled reflux, placing patient at high risk of aspiration

5. Equipment requirements for Moderate Sedation include which of the following?
   A. Oxygen source and administration equipment
   B. Emergency resuscitation equipment
   C. Suction equipment
   D. All of the above
6. Which of the following is a true statement about medication administration in Moderate Sedation?
   A. Medications should be given quickly for quickest effect
   B. Medication dosages are the same for every patient
   C. Medications should be given incrementally with time between the doses to assess effect
   D. Coexisting medical conditions make no difference in medication decisions

7. All adult patients receiving Moderate Sedation require IV access.
   True____   False____

8. The patient receiving moderate sedation is continuously monitored. Documentation is done at 5 minutes intervals. In addition to heart rate, respiratory rate, blood pressure, oxygen saturation and level of consciousness, which of the following should be contained on the patient record?
   A. Start and stop time of the procedure
   B. Medications administered, and patient response
   C. Type of procedure
   D. All of the above

9. A patient evaluation for sedation, including ASA classification, is required to be done by the Medical Staff member prior to sedation by is required.
   A. True____   B. False____

10. All patients requiring pharmacological reversal agents will remain under post-sedation recovery:
    A. 90 min
    B. 60 min
    C. 30min
    D. 120 min

11. Patients being discharged after moderate sedation must meet which of the following criteria in addition to sedation recovery?
    A. Maintenance of pre-sedation mobility
    B. A responsible adult for escort home
C. Given and acknowledge written discharge instructions
D. All of the above

Ruby Smith, an 68-year-old woman, scheduled for a colonoscopy for evaluation of guiac positive stool. Her vital signs are 110/70, Heart rate 85, and respiratory rate 16. Her physician has decided to perform her procedure under moderate sedation.

12. As part of the pre-sedation assessment and patient evaluation conducted by the physician, it is determined Ruby Smith as been NPO approximately 12 hours. What other are required?
   1. Baseline vital signs
   2. A signed consent form for the procedure under moderate sedation
   3. The patient’s allergies and adverse drug reactions
   4. Mental status
   5. Physical exam including auscultation of heart and lungs
   6. Preprocedure diagnosis
   A. 1, 2, 3, 4, 5
   B. 1, 3, 4, 5
   C. 1, 2, 5, 6
   D. 1, 2, 3, 4, 5, 6

13. You are gathering the equipment for the procedure. You would be sure you have which of the following?
   1. Oxygen source and administration equipment
   2. Suction, including catheters and Yankauer tips
   3. Pulse oximetry equipment
   4. ECG monitor
   5. Vital sign equipment
   6. Intravenous equipment
   7. A resuscitation cart
   A. 1, 3, 4, 5
   B. 1, 2, 3, 4, 5, 6, 7
   C. 2, 3, 4, 5, 6, 7
   D. 1, 2, 3, 4, 5, 6
14. Patients under moderate sedation should:
   A. Require respiratory support to maintain a patent airway
   B. Maintain a patent, airway and adequate spontaneous ventilation
   C. Demonstrate impaired cardiovascular function
   D. Respond only to repeated or painful stimulation

15. Which of the following is true concerning the use of narcotics and benzodiazepines?
   A. Narcotics potentiate the effects of the benzodiazepines and the dosage should be reduced
   B. Narcotics slow down the effects of benzodiazepines and the dosage should be increased
   C. Narcotics and benzodiazepines have no affect on each other

16. During the procedure the physician performing the procedure asks the RN monitoring the patient to leave the room to retrieve a piece of equipment. This is allowed under the Moderate Sedation Policy.
   A. True____    B. False____

17. As the colonoscopy on Mrs. Smith proceeds, you notice she has become more agitated. Her respiratory rate drops to 8 breaths/min and becomes irregular, her blood pressure is 80/50, her heart rate is 60, and her oxygen saturation is down to 85%.
   Appropriate actions include all the following except:
   A. Notify the physician performing the procedure immediately
   B. Administer more sedation as needed
   C. Bag-valve mask ventilation
   D. Maintain patient’s airway

18. If the patient’s blood pressure becomes unobtainable all of the above should be done except:
   A. Initiation of Basic Life Support (Check for airway patency, breathing and a pulse)
   B. Call a Code
   C. Wait for the physician to give orders

19. At the completion of Mrs. Smith’s procedure her recovery from moderate sedation begins. Vital signs, pain score are documented:
A. every 30 min for at least 30 mins. post last administration of sedation medication
B. Every 15 min for at least 30 mins. post last administration of sedation medication
C. Every 5 min for at least 30 mins. post last administration of sedation medication

20. This patient’s recovery is completed with Transfer/Discharge criteria are met. Which of the following are part of the criteria?
   A. Stable blood pressure within 20-30 mm/Hg of the pre-procedure value
   B. Heart rate and rhythm within normal range for age and history and within 20-30 points of initial admission
   C. Respirations unlabored between 12-20 or back to preprocedure status
   D. All of the above

21. When evaluating a patient for moderate sedation, the responsible physician must include an airway assessment.
   A. Yes
   B. No

22. A Mallampati exam of 4 indicates that there is no anticipated airway difficulty should the patient require intubation.
   A. True
   B. False

23. Evaluation of Mouth opening, cervical extension and thyromental distance can replace a Mallampati exam.
   A. Yes
   B. No

For questions 24-29, please identify the cardiac rhythm.
25. A. Sinus Tachycardia  
B. Sinus Bradycardia  
C. Normal Sinus Rhythm  
D. Fatal

26. A. Sinus Tachycardia  
B. Sinus Bradycardia  
C. 60-cycle interference  
D. Ventricular fibrillation

27. A. Sinus Tachycardia  
B. Normal Sinus Rhythm  
C. Artifact
D. Ventricular Tachycardia

28.

A. Sinus Bradycardia  
B. Normal Sinus Rhythm  
C. First Degree Heart Block  
D. Junctional Rhythm

29.

A. Sinus Bradycardia  
B. Sinus Tachycardia  
C. Normal Sinus Rhythm  
D. Ventricular Tachycardia
<table>
<thead>
<tr>
<th>MODERATE SEDATION QUALITY REPORTING FORM</th>
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<tbody>
<tr>
<td><strong>Patient Name:</strong></td>
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<tr>
<td><strong>MR #:</strong></td>
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<tr>
<td><strong>DATE:</strong></td>
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**PRE-PROCEDURE ASSESSMENT INCIDATIONS**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>Was necessary <strong>equipment</strong> (include IV, meds, blood products, resuscitation equipment) checked/ready?</td>
<td></td>
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<tr>
<td>Was the <strong>crash cart</strong> checked/ready?</td>
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<tr>
<td>Was pre-procedure <strong>education</strong> provided to the patient?</td>
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<tr>
<td>Were pre-procedure <strong>treatments and services</strong> provided (according to plan of care/protocol)</td>
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<tr>
<td>Was the pre-sedation <strong>assessment and plan of care</strong> signed by the physician?</td>
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<tr>
<td>Were <strong>vital signs, NPO status, level of consciousness, and airway assessment</strong> documented immediately pre-sedation?</td>
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**DURING THE PROCEDURE**

<table>
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<tr>
<th>YES</th>
<th>NO</th>
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<tr>
<td>Were <strong>vital signs</strong> documented during regular intervals?</td>
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**POST-PROCEDURE ASSESSMENT INDICATORS**

<table>
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<tr>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>Were <strong>vital signs</strong> documented immediately post procedure?</td>
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<tr>
<td>Were <strong>vital signs, pain, and level of consciousness</strong> documented during post-procedure period?</td>
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<tr>
<td>Was pain documented using the <strong>pain scale</strong> (0-10)</td>
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<tr>
<td>Were <strong>discharge criteria</strong> met and documented?</td>
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<tr>
<td>Was there documentation that a <strong>responsible adult</strong> accompanied the patient?</td>
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<tr>
<td>Was an individualized <strong>pre and post procedure plan documented</strong>?</td>
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**POST-PROCEDURE AUDIT INDICATORS**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>Was the sedation dose outside of the recommended range?</td>
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<tr>
<td>Did the patient exhibit:</td>
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<tr>
<td>1. <strong>Cardiac arrest</strong>?</td>
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<tr>
<td>2. <strong>O2 saturation &lt; 90% for &gt; 1 minute</strong>?</td>
<td></td>
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<tr>
<td>3. A need for airway support (bag-valve mask)?</td>
<td></td>
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<tr>
<td>4. Respiratory arrest?</td>
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<tr>
<td>5. <strong>Ventricular dysrhythmias or a new/abnormal ECG</strong>?</td>
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<td>6. Tachycardia (&gt;130 for &gt; 5 minutes) or 20% above baseline for &gt; 5 minutes?</td>
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<tr>
<td>7. Bradycardia (&lt;50 for &gt; 5 minutes) or 10% below baseline for &gt; 5 minutes</td>
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<tr>
<td>8. Hypertension (&gt; 20 above baseline systolic BP for &gt; 5 minutes)?</td>
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<tr>
<td>9. Hypotension (&gt; 20% below baseline systolic BP for &gt; 5 minutes)?</td>
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<tr>
<td>10. Pain at a level &gt; 7 for &gt; 15 minutes?</td>
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<tr>
<td>11. <strong>Nausea/vomiting &gt; 90 minutes after procedure</strong>?</td>
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<tr>
<td>12. A need for reversal agents?</td>
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<td>Did the patient have an unplanned admission?</td>
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<tr>
<td>Did the patient require an <strong>RRT of MSET within 90 minutes after the end of the procedure</strong>?</td>
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Inova Health System

Competency Assessment:

Moderate (Conscious) Sedation

Year: ____________

*Employee(S):_____________________________________________________________

Job Title: ___________________________ Department/Unit: ____________________

Competency Statement: This competency is designed to allow the participant to safely care for the patient undergoing moderate sedation

Learning Options: Lecture Education Packet Moderate Sedation Quiz

Competency Verified By:
(Signature)__________________________________________________________________

Reason for Inclusion: High Risk  High Cost  Problem Prone  Low Volume  High Volume

Age Specific Category: Neonatal Pediatric Adolescent Adult Geriatric Not Age Specific

Review Cycle: Entry Quarterly Semi-annual Annual Other (specify)

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<thead>
<tr>
<th>Performance Criteria</th>
<th>Evaluation Method</th>
<th>Date &amp; Initials</th>
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<tbody>
<tr>
<td>1. The participant is able to discuss the definitions for different levels of sedation</td>
<td>Education packet</td>
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<tr>
<td>• Minimal Sedation</td>
<td>Moderate Sedation Quiz</td>
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<tr>
<td>• Moderate Sedation</td>
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<td>• Deep Sedation</td>
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<td>• Anesthesia</td>
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<td>2. The participant is able to identify the criteria for selecting moderate sedation</td>
<td>Education packet</td>
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<td>Moderate Sedation Quiz</td>
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<td>3. The participant is able to identify monitoring requirements for the patient undergoing moderate sedation</td>
<td>Education packet</td>
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<td>Moderate Sedation Quiz</td>
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<td>4. The participant is able to discuss and demonstrate approved</td>
<td>Education packet</td>
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<tr>
<td>medications for moderate sedation including age specific considerations</td>
<td>Moderate Sedation Quiz</td>
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<td>• medication dosage</td>
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<td>• medication administration considerations</td>
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<td>• reversal agents</td>
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5. The participant is able to identify documentation requirements for the patient undergoing moderate sedation. | Education packet  
Moderate Sedation Quiz |

6. The participant is able to discuss the sedation recovery and discharge criteria | Education packet  
Moderate Sedation Quiz |