I. Description

Requirements for the management of pediatric patients receiving procedural sedation. This policy is intended to promote high quality patient care during sedation. The policy is not intended as a standard order, or to replace clinical judgment, but shall be considered minimum requirements when sedative medications are used.

II. Rationale

The intent of this policy is to provide a consistent standard of care throughout the Hospitals and Ambulatory Care Clinics for the management of pediatric patients receiving sedation/analgesia when undergoing therapeutic or diagnostic procedures.

III. Policy

A. Exceptions - This policy does not apply to situations in which anesthesia staff is present or to the utilization of sedatives and analgesics for:

1. Management of baseline, non-procedure related pain and/or anxiety, seizures, or physiological symptoms.
2. Pre-medication of patients prior to surgery or chemotherapy.
3. Patients who are intubated and on ventilatory support in the Emergency Department or in an Intensive Care setting.
4. The administration of a single agent for the sole purpose of achieving anxiolysis.

B. Definitions

Definitions of levels of sedation/analgesia are as defined by the American Society of Anesthesiologists Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists.

1. Minimal Sedation (anxiolysis)
   A drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are not.

2. Moderate sedation
   A drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation. No interventions are required to maintain a patent airway, and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

3. Deep sedation/analgesia
   A drug-induced depression of consciousness during which patients cannot be aroused easily but respond purposefully following repeated or noxious stimulation. The ability to independently maintain ventilatory function and a patent airway may be compromised. Cardiovascular function is usually not impaired. A state of deep sedation may be accompanied by partial or complete loss of protective airway reflexes.
4. 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. Anesthetized 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.

Differences between Moderate Sedation and Deep Sedation

<table>
<thead>
<tr>
<th>Moderate Sedation</th>
<th>Deep Sedation</th>
</tr>
</thead>
<tbody>
<tr>
<td>depressed level of consciousness</td>
<td>more significantly depressed level of consciousness</td>
</tr>
<tr>
<td>follows commands</td>
<td>unable to consistently follow commands</td>
</tr>
<tr>
<td>protective reflexes expected to be maintained</td>
<td>protective reflexes can be affected</td>
</tr>
<tr>
<td>vital signs expected to remain stable</td>
<td>vital signs may be labile</td>
</tr>
<tr>
<td>short post-procedure stay</td>
<td>occasional prolonged post-procedure monitoring</td>
</tr>
<tr>
<td>infrequent sedation-related complications</td>
<td>more frequent sedation-related complications</td>
</tr>
</tbody>
</table>

The transition from anxiolysis to moderate sedation to deep sedation, and from deep sedation to general anesthesia is a continuum. This transition can be difficult to predict and must be anticipated whenever sedation is administered. If this transition is not appreciated and appropriate measures not taken, the child's condition can rapidly deteriorate resulting in hypoxemia, hypotension, respiratory arrest, cardiac arrest and even death.

C. Qualifications (See Appendix A)

A qualified practitioner’s order is required for all sedations

A qualified practitioner is a physician or nurse practitioner who has successfully completed all pediatric sedation credentialing requirements and has privileges to administer pediatric sedation outside the operating room.

Sedation providers must successfully complete competency testing during each credentialing and re-credentialing period. Clinical professionals monitoring sedation procedures or administering medications under a privileged physician or nurse practitioner must successfully complete competency testing at least every two years.

Individuals administering sedation shall do so on the order of a qualified physician or nurse practitioner. A resident physician with privileges to administer sedation must be supervised by a qualified attending physician.

A competency-trained registered nurse may administer sedation/analgesia with an order from, and under the supervision of, a qualified physician or nurse practitioner privileged to sedate pediatric patients.
A qualified physician is ultimately responsible for ensuring that appropriate care is provided to the child during all phases of sedation. A qualified physician or nurse practitioner will be designated to be responsible for the sedation, including assessment and monitoring during the pre, intra, and post sedation phases.

D. There must be sufficient numbers of qualified staff present to:

Evaluate the patient, assist with the procedure, provide sedation, monitor, and recover the patient. The person evaluating the response of the patient to sedation must not be the person performing the procedure. The person monitoring the patient must be in constant attendance and be able to initiate and assist with life support measures.

E. Sedation/analgesia is provided in areas where:

Personnel have had competency-based education, training, and experience in evaluating patients before providing sedation, monitoring patients during and after sedation, airway management, CPR, set up of equipment for care and resuscitation, use of necessary medications, ability to manage IV lines and the ability to distinguish lethal arrhythmias.

Sedation may only be performed in treatment areas with appropriate equipment and trained staff

IV. Procedure

A. Emergency Equipment Needed

1. Oxygen delivery system capable of 15liters/min flow rates for greater than 60 min
2. Oxygen saturation monitor and appropriate sized pulse oximeter probe
3. Appropriate sized ambu bag & mask, oral airways, laryngoscope, endotracheal tubes and laryngeal mask airways.
4. Suction
5. Emergency drugs including reversal and resuscitative agents
6. Blood pressure monitoring capability
7. Intravenous line at the option of the responsible physician. In all instances, an individual with the skills to establish intravenous access must be immediately available
8. Continuous EKG monitor and defibrillator with appropriate sized paddles or patches
9. End tidal carbon dioxide monitoring device

B. Monitoring and Documentation

Standard forms for pediatric sedation will be used throughout the hospital system

1. Pre-Procedure
   a. A qualified physician or nurse practitioner will obtain written informed consent from the child's legal guardian and verbal assent (where possible) from the patient prior to the start of the procedure. This consent process must include a detailed discussion of the need for sedation, the risks, benefits and alternatives (if any). No sedation shall be initiated until the consent form is signed, witnessed and placed on the patient's medical record. In the event that the patient's legal guardian is unavailable, appropriate hospital policy must be followed.
b. A qualified physician or nurse practitioner must document a baseline history and physical assessment related to sedation/analgesia on the patient care record as part of the pre-procedure assessment.

The history must include the following:

- age
- drug allergies
- recent or current illness
- major illnesses or congenital defects
- previous hospitalizations, surgeries, sedations and anesthesia
- previous problems with anesthesia/sedation
- current medication use (including opioid and sedative use in the past 24 hours)
- time and type of last enteral intake (i.e. solids, liquids, clears, breast milk)

The assessment must include the following:

- weight in kilograms
- assessment for risk of airway compromise (i.e. dysmorphic facies, tonsillar hypertrophy, history of obstructive sleep apnea or snoring)
- respiratory and cardiovascular status
- ASA status classification score (see Appendix B)
- a brief neurological examination and determination of developmental status
- heart rate, blood pressure, respiratory rate, oxygen saturation, and temperature
- baseline assessment of pain, where appropriate
- baseline sedation score

Note: Pediatric patients should be NPO for solid foods for six hours prior to elective procedures. Children may have clear liquids up to two hours prior to the procedure. Infant formulas are considered as solids and may be consumed up to six hours prior to a procedure. Breast milk may be ingested up to four hours prior to the procedure. These guidelines should be followed regardless of the sedative medication chosen or the route of administration. For urgent and emergent procedures NPO guidelines are at the discretion of the qualified attending physician. These guidelines are consistent with the guidelines developed by the OR policy committee.

C. Intra-Procedure

1. The UNC Hospitals "Time Out" policy must be adhered to for all sedations and documented as part of the patient's permanent medical record.

2. Evaluation of the patient’s response to the drugs is the primary responsibility of the individual giving the drugs and monitoring the patient and must NOT be the person performing the procedure.

3. During the procedure, oxygen saturation, pulse rate and end tidal carbon dioxide level shall be continuously monitored. Blood pressure, pulse rate, respiratory rate, oxygenation saturation and end tidal carbon dioxide level should be monitored and recorded as part of the permanent record to document care. Charting of blood pressure, pulse, oxygen saturation and end tidal carbon dioxide level should be done at a minimum of five-minute intervals and more often if the patient's condition warrants. Continuous EKG monitoring should be performed on all pediatric patients.
The blood pressure monitoring interval may be adjusted during moderate sedations by the individual needs of the patient and clearly documented on the patient's record. It is specifically acknowledged that the stimulus of the inflation of a blood pressure cuff may be undesirable because it may arouse a sleeping child. It is therefore permissible to make the judgment that it will be safe to defer blood pressure measurement in an otherwise stable child when moderate sedation is being performed. In such cases, continuous pulse oximetry, end tidal CO2 monitoring, and visual observation of the child are mandatory.

4. All pediatric patients, unless medically contraindicated, should receive supplemental oxygen throughout the sedation period, regardless of baseline oxygen saturation.

5. Immediate access to support from Anesthesiology, the Pediatric Rapid Response and Pediatric code teams must be available throughout the sedation.

6. At no time shall a sedated patient be left unattended.

D. Post-Procedure

1. Inpatients - Disposition of an inpatient will depend on the status of the patient. Conditions for leaving the procedure area are as follows:
   a. Non-ICU inpatients will be monitored until awake and alert or returned to the pre-sedation level of consciousness. Patients may return to the floor prior to full recovery if special arrangements have been made with the physician and the nursing staff on the floor (See Appendix C). Transportation of a sedated non-ICU inpatient must be performed by an individual capable of maintaining a patent airway and competent to perform CPR. Sedated patients must be transported on a pulse oximeter and with oxygen and an appropriate sized face mask and ambu bag immediately available.
   b. ICU and other critically ill patients may be transported back to critical care areas as soon as the procedure is completed. Full cardiovascular monitoring must be maintained during transport and airway support as needed. A qualified physician and/or registered nurse must be in attendance during transport.
   c. Non-ICU patients should be monitored for at least one hour following any usage of reversal agents regardless of Aldrete score.

2. Outpatients
   a. Monitoring of vital signs and oxygen saturation will be documented every fifteen minutes until the patient's respiration and level of consciousness (awareness of person, place) return to the pre-procedure baseline level and the oxygen saturation returns to the pre-procedure baseline level with the patient breathing room air for at least five minutes. Patients may be sent to non-monitored area or discharged to home, without a physician order, by using the Aldrete Scoring System (Refer to Section III, Discharge Guidelines, this policy and Appendix C)
   b. Patients receiving sedation/analgesia will be kept in a monitored area if:
      i. The patient does not achieve pre-procedure baseline levels of oxygenation when removed from supplemental oxygen for a five-minute period.
      ii. Reversal agents were required. Patients receiving reversal agents should be monitored for at least one-hour prior to discharge, regardless of Aldrete score. Use of reversal agents is discouraged and must never be used to expedite discharge.
iii. The patient required supplemental oxygen prior to receiving sedation medications. These patients must meet pre-procedure baseline levels, prior to being sent to a non-monitored area or discharged to home with a physician order.

Access to support from Anesthesiology, the Pediatric Rapid Response and Pediatric code teams must be readily available throughout the recovery period.

E. Discharge Guidelines

1. Patients should be alert and oriented. Infants and patients whose mental status was altered pre-procedure should have returned to baseline.

   Note: Practitioners must be aware that pediatric patients are at risk for airway obstruction should the head fall forward while the child is secured in a car seat. Parents should be notified of this potential.

2. The Aldrete Scoring System, which may be used without obtaining a physician's order, will be used to determine readiness for discharge. The Aldrete score should be documented on discharge/transfer. The score range is "10" for complete recovery to "0" in comatose patients. Patients may be discharged without physician intervention with of score of "8" or above, provided that activity, respiration, and color on the scale are scored as "2" and circulation and consciousness are scored at "1" or "2". (See Appendix C)

3. In the outpatient setting, a responsible adult should be provided with written instructions regarding post procedure diet, medications, activities, and a phone number to use in case of emergency.

4. Outpatients should be discharged to a responsible adult who assumes responsibility for transport and who has been educated to post-procedure complications and the appropriate reporting mechanism.

F. Consultation in Special Situations

In patients with significant underlying medical conditions (e.g. cardiac, pulmonary, hepatic, or renal disease; pregnancy; drug or alcohol abuse) pre-procedure consultation with an appropriate medical specialist may be helpful.

In patients with significant sedation-related risk factors (e.g., morbid obesity, potentially difficult airway, significant medical history), pre-procedure consultation is required from an intensivist or anesthesiologist.

For severely compromised or medically unstable patients, practitioners who are not trained in the administration of general anesthesia must consult an anesthesiologist or pediatric intensivist.

G. Responsibility and Performance Improvement

1. The Pediatric Sedation Committee is responsible for overseeing the performance improvement process for assessing outcomes in patients receiving moderate/deep sedation.

2. All departments utilizing moderate/deep sedation will be responsible for monitoring continuous quality outcomes in accordance with the standard "Outcome Evaluation" tool and for reporting results quarterly to the Performance Improvement and Patient Safety office. The outcome evaluation tool may be ordered from Central Distribution.
3. Each clinical department shall maintain a log and totals of the numbers and kinds of sedation procedures as well as a record of adverse events. Unusual, unanticipated, or adverse events shall be reported to Risk Management.

4. The Pediatric Sedation Committee will meet quarterly to review outcomes data, and the policy and protocols. Any committee member may call a special meeting at any time if a problem develops that requires urgent review or a change in process.

H. Propofol Deep Sedations

The use of propofol for deep sedations in pediatric patients is considered separately and is outlined in the Pediatric Propofol Policy. (See Appendix D)
APPENDIX A: Requirements for Individual Credentialing

I. Sedation Service (Nurses)
   a. PALS
   b. Team STEPPS
   c. LMS module and test
   d. Patient Simulators

II. Attending, NP, and Fellow MD’s
   a. ICU
      i. PALS, NRP, or NALS
      ii. LMS and Test
   b. Emergency Medicine
      i. PALS (or equivalent program as approved by the UNC Hospitals’ Chief Sedation Officer, Chair of the Department of Emergency Medicine, and Pediatric Sedation Committee)
      ii. LMS and Test
   c. Others (ex Pediatric Cardiologist, Pediatric Hospitalist, Radiologist)
      i. PALS
      ii. Team STEPPS
      iii. LMS
      iv. Patient Simulators

III. Nurses
   a. ICU
      i. PALS, NRP, or NALS
      ii. LMS and test
   b. EM
      i. PALS
      ii. LMS and test
   c. Others* (Pediatric Cath Lab RNs, Pediatric floor RNs, Radiology RNs)
      i. PALS
      ii. Team STEPPS
      iii. LMS module and test
      iv. Patient Simulators

IV. Recertification
   a. Maintain Certification in PALS, NRP, or NALS
   b. Document 20 sedations every 2 years
   c. All adverse events must be reviewed by sedation committee before recertification is granted. The sedation committee may ask for additional training prior to recertification.

*Nurses with a minimum of 3 years of pediatric experience or 1 year of PICU experience may apply for credentials to provide sedation under the guidance of a credentialed physician.

*Residents may take LMS module but cannot provide sedation without a credentialed attending.
APPENDIX B: American Society of Anesthesiology Physical Status Classification

<table>
<thead>
<tr>
<th>Physical Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Normal, healthy patient</td>
</tr>
<tr>
<td>2</td>
<td>A patient with mild systemic disease</td>
</tr>
<tr>
<td>3</td>
<td>A patient with severe systemic disease</td>
</tr>
<tr>
<td>4</td>
<td>A patient with severe systemic disease that is a constant threat to life</td>
</tr>
<tr>
<td>5</td>
<td>A moribund patient who is not expected to survive without the operation/procedure</td>
</tr>
<tr>
<td>6</td>
<td>A declared brain-dead patient whose organs are being removed for donor purposes</td>
</tr>
<tr>
<td>E</td>
<td>Emergency, add E to all emergency patients</td>
</tr>
</tbody>
</table>
APPENDIX C: ALDRETE SCORING SYSTEM AND AROUSAL SCALE

Aldrete Scoring System – May be used without obtaining MD order (circle)

Activity
Voluntary movement of all limbs to command .......................................................2
Voluntary movement of 2 extremities to command .................................................1
Unable to move .................................................................................................0

Respiration
Breathe deeply and cough ....................................................................................2
Dyspnea, hypoventilation ...................................................................................1
Apneic Unable to move .....................................................................................0

Circulation
B/P + 20% of preanesthetic level .........................................................................2
B/P + 20% - 50% of preanesthetic level ...............................................................1
B/P + 50% of preanesthetic level .........................................................................0

Consciousness
Fully awake ........................................................................................................2
Arousable ............................................................................................................1
Unresponsive ......................................................................................................0

Color
Pink ...................................................................................................................2
Pale, dusky, blotchy, jaundice, other .................................................................1
Cyanotic ............................................................................................................0

The score should be documented at discharge/transfer below.
The range is 10 for complete recovery to 0 in comatose patients. Patients may be
discharged without physician intervention with a score of 8, providing that activity,
respiration, and color on the scale are scored as “2” and circulation and consciousness
are scored at “1” or “2”.

Discharge/Transfer Aldrete Score >>

*UNC HOSPITALS AROUSAL SCALE

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Fully awake</td>
</tr>
<tr>
<td>4</td>
<td>Arouses easily</td>
</tr>
<tr>
<td>3</td>
<td>Arouses with tactile stimuli</td>
</tr>
<tr>
<td>2</td>
<td>Arouses to vigorous stimuli</td>
</tr>
<tr>
<td>1</td>
<td>Responsive to painful stimuli</td>
</tr>
<tr>
<td>0</td>
<td>Unresponsive</td>
</tr>
</tbody>
</table>

**Pain Scale (0 – 10), Faces (0 – 5), or describe
Appendix D: Pediatric Propofol Protocol

Purpose:
The purpose of this document is to define the guidelines for the Emergency Department and Pediatric Intensive Care Unit physicians’ administration, monitoring and recovery of pediatric patients receiving propofol for procedural sedation in the Emergency Department and Pediatric Intensive Care Unit.

Characteristics of Propofol:
1) Sedation: Propofol is an intravenously administered sedative-hypnotic agent that causes rapid loss of consciousness with a short recovery time. It is a diisopropylphenol and, as such, is structurally unrelated to other commonly used sedative agents.
2) Analgesia: Propofol is not an analgesic and the use of an additional agent for analgesia may be needed for painful procedures.
3) Amnesia: Complete amnesia is generally seen.
4) Cardiovascular Stability: Transient decreases in systolic blood pressure are often seen. This drop in pressure generally does not result in hemodynamic compromise or cardiovascular instability in patients with normal cardiac reserve.
5) Airway reflexes: Hypoxia, respiratory depression and apnea can be seen with propofol. These effects are usually short lived, and appear to be dose and rate of administration dependent. Respiratory complications can typically be managed by stimulation, airway repositioning, supplemental oxygen administration, and bag-mask ventilation. Intubation is rarely necessary.
6) Anti-emetic properties: Propofol has intrinsic anti-emetic properties.
7) Pharmacodynamics: Hypnosis is generally produced within 40-60 seconds, with the patient returning to consciousness 10-15 minutes following a therapeutic bolus dose.

Potential Side Effects:
   a) Hypotension (17-30%)
   b) Hypoxia (5%)
   c) Upper airway obstruction requiring patient repositioning (3%)
   d) Apnea (0.8%)
   e) Bradycardia, seen with concomitant use of an opioid analgesic (1.2%)
   f) Movement, seen with lower doses (17%)
   g) Pain/burning/stinging at injection site (17.6%) This side effect may be decreased by injecting a small amount of lidocaine, 1mg/kg IV. This dose must be added to the cumulative dose of local anesthetic infiltration to avoid toxicity.
**Patient Selection:**
Hemodynamically stable patients, age 12 months and older, for whom alternative methods of sedation are contraindicated or who would benefit from the extremely short duration of propofol sedation. If there are any concerns about appropriateness of the patient, anesthesia should be consulted for assistance with the sedation. Only patients who are ASA class I or II should be considered for propofol procedural sedation in the Emergency Department. This document does not address patient selection for the use of propofol for intubated patients in the PICU.

**Contraindications:**
1) Age <12 months
2) Respiratory depression (RR<10)
3) Hypoxemia (room air baseline oxygen saturation less than 95%)
4) Hypotension (BP more than 2 standard deviations from age appropriate norms)
5) Cardiovascular disease
6) Pulmonary infection or disease, including upper respiratory infection
7) Abnormal craniofacial or airway anatomy
8) Obesity (BMI >30)
9) History of obstructive sleep apnea (or history of significant snoring)
10) Mitochondrial disease
11) Baseline neurologic impairment that could lead to an increased aspiration risk

**Environmental Requirements / Monitoring:**
1) Suction, oxygen, pulse oximetry, end tidal carbon dioxide and cardiac monitoring (including blood pressure monitoring) at bedside
2) Age appropriate equipment for advanced airway management at bedside
3) Secure IV access established
4) Isotonic IV fluids hanging at bedside
5) **Attending physician present at the bedside throughout the sedation and is responsible for the sedation, not the procedure.**
6) UNC sedation guidelines must be followed:
   a. Physicians providing propofol pediatric procedural sedation must be appropriately privileged by the UNC Hospitals Pediatric Sedation Committee.
   b. Sedation/Analgesia Assessment and Procedure Record must be completed and signed by the attending before medications are given.

**Pre-sedation:**
1) Patients must undergo a pre-sedation assessment in accordance with UNC Hospitals analgesia and sedation policies
2) Written informed consent for deep sedation must be obtained from the patient or legal guardian.
3) Pre-sedation level of consciousness and complete vital signs will be recorded in the medical record prior to administration of propofol.
4) Patients must meet fasting guidelines for elective procedures. This is 6 hrs for solids, (consider 8 hrs for fatty meals), 6 hrs for formula, 4 hrs for breastmilk, and 2 hrs for clear liquids.

**Analgesia:**
For patients requiring analgesia who have not previously received opioid medications or for whom pain control is inadequate prior to initiation of sedation, fentanyl will be administered as follows:
Fentanyl 0.5-1 mcg/kg (to a maximum of 100mcg) will be given as a slow IV infusion over 1-2 minutes, 5 minutes prior to the initiation of propofol sedation. No additional opioids or benzodiazepines may be administered until the patient is fully recovered from the sedation and back at their neurologic baseline due to the increased risk of respiratory depression, apnea and hypotension.
The administration of local anesthetic should be employed when appropriate.

**Propofol Administration:**
**Propofol will be administered by an attending physician.** Nursing staff may NOT administer propofol.
Propofol will be administered as follows:
Propofol 1mg/kg (to a maximum of 50 mg) will be given as a slow IV infusion over 1-2 minutes. Additional doses of 0.5-1mg/kg (but not more than 25mg/dose) may be given if the initial dose does not achieve adequate sedation or if repeated doses are necessary to accomplish a longer procedure. An interval of 2-4 minutes should be allowed between doses to allow for the full effect of each dose to be seen.
Supplemental oxygen at 8-10 liters/min will be administered via face mask throughout the procedure.
If an antiemetic is needed, ondansetron should be used at a dose of 0.16mg/kg IV to a maximum dose of 8mg IV.

**Interactive Monitoring:**
1) **UNC Hospitals Pediatric Sedation guidelines must be strictly followed.**
2) Patient airway and respirations will be directly observed by a licensed health care provider until recovery is well established (UNC Hospitals Arousal Scale of 4 or greater).
3) Drapes must be positioned such that airway and chest motion can be visualized, when possible.
4) Occasional head repositioning may be needed for optimal airway patency.

**Mechanical Monitoring:**
1) **UNC Hospitals Sedation and Analgesia guidelines must be strictly followed.**
2) Continuous pulse oximetry and end tidal carbon dioxide monitoring until recovery is well established.
3) Continuous cardiac monitoring until recovery is well established.
4) Blood pressure measured every 3 minutes until recovery is well established.

**Discharge Criteria:**
1) Strict adherence to UNC Hospitals Sedation and Analgesia Policy discharge criteria.
2) Return to pretreatment level of verbalization and awareness.
3) Return to pretreatment level of neuromuscular activity.

**Discharge Instructions:**
1) Patient must be discharged to the care of a responsible adult.
2) Written post sedation instruction sheet given to caregiver.

**Quality Improvement:**
All cases of propofol sedations will be logged and reported as per UNC Hospitals Pediatric Sedation Policy and will be reviewed as per the UNC Hospitals Pediatric Sedation Committee's protocol.
Training Requirements for non-Anesthesia Attending physicians Administering Propofol in the Emergency Department and Pediatric Intensive Care Unit for Pediatric Procedural Sedations

1) Attendings and fellows from the above areas must apply to receive privileges to administer propofol for pediatric procedural sedation.

2) All physicians administering propofol in the above areas will meet all the credentialing requirements of the UNC Hospitals Pediatric Sedation Committee, including Pediatric Advance Life Support active certification.

2) All physicians administering propofol in the above areas must have pediatric advance airway skills. This includes, but is not limited to, skills in bag mask ventilation, LMA insertion, use of oral and nasal airways and endotracheal intubation. All physicians must also be able to demonstrate the ability to recognize and appropriately intervene when patients have difficulty with oxygenation or ventilation while under sedation.

   a) For physicians who are board certified or board eligible in Pediatric Emergency Medicine, Emergency Medicine, and Pediatric Critical Care the above requirement will have been met during their training. These physicians must document management of 10 pediatric airways in the past 12 months. Physicians who have not managed 10 pediatric airways in the past 12 months may be asked to spend 1 day in the operating rooms with a pediatric anesthesiologist managing pediatric airways.

   b) Physicians who are not board certified or board eligible in the above specialties are required to spend forty hours on the pediatric anesthesia service with a minimum of 5 LMA placements, 10 endotracheal intubations, and 10 bag valve mask ventilations. These physicians will not be privileged to administer propofol until they have completed this 40 hour training period and the division of pediatric anesthesia confirms that these training requirements have been met.

   c.) Active PICU and Pediatric ED fellows who have spent time in the Children’s operating room as part of their training will be deemed skilled in pediatric advance airway management.

3) All physicians administering propofol in the above areas must complete the LMS propofol for pediatric procedural sedation module which reviews the pharmacology and pharmacokinetics of the drug including indications, contraindications, and potential side effects. The Department of Anesthesia will be responsible for this learning module.

4.) Fellows who are granted privileges may only administer propofol for deep sedations with appropriate supervision by an attending physician who has privileges to use propofol for deep sedations in pediatrics.