

Procedural Sedation Consensus Statement

The immediate availability of interventions including procedural sedation is critical to serving the needs of our patients. Preserving life, restoring health, and alleviating suffering have been fundamental to the practice of nursing and medicine for centuries. We are challenged as health care professionals to provide this care in a manner that meets the Institute of Medicine's **Six Quality Aims** of safe, effective, timely, efficient, equitable, and patient centered care. Patients with emergency medical conditions frequently experience significant treatable pain and anxiety. There is ample evidence to support the routine use of procedural sedation by appropriately trained and credentialed emergency nurses and physicians.

PRINCIPLES FOR PROCEDURAL SEDATION IN EMERGENCY CARE SETTINGS

- **Patients** have a right to expect that:
 - ◆ their survival and recovery will always be top priorities;
 - ◆ their care will be provided in a safe and patient centered manner;
 - ◆ their comfort will be assessed and pain managed in an equitable, timely, and efficient manner;
 - ◆ their care in emergency care settings will be consistent with current medical knowledge and practice;
 - ◆ their emergency caregivers will be appropriately trained and credentialed; and
 - ◆ they will be provided sufficient information, when possible, to allow them to participate in therapeutic decisions and provide informed consent.
- The primary goal of procedural sedation for patients in emergency care settings is to manage pain and anxiety while facilitating immediate interventional procedures.
- The response to sedating medications follows a broad continuum that varies from patient to patient. Care must be customized to both the patient and the clinical situation, and caregivers must be able to recognize and manage potential complications.
- Procedural sedation is safe and effective when performed by appropriately trained, credentialed, and supported emergency nurses and physicians.

We, the undersigned organizations, agree:

1. Medications including, but not limited to, etomidate, propofol, ketamine, fentanyl, and midazolam are utilized by healthcare professionals to facilitate management of a continuum of painful conditions. These extend from simple pain management and maintenance sedation to moderate-deep sedation for painful procedures. Because of the myriad ways these medications might be used, it is best to focus on the goal of the intervention rather than the medication itself.
2. Procedural sedation is defined as a technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patients to tolerate an unpleasant procedure while maintaining cardiorespiratory function. (American College of Emergency Physicians [ACEP] Clinical Policy for Procedural Sedation and Analgesia in the Emergency Department, ***Annals of Emergency Medicine* 2005**)

3. Procedural sedation medications may be administered by a registered nurse (RN) ***in the presence of*** a physician, advanced practice registered nurse, or other health care professional credentialed and privileged for procedural sedation. RNs administering such medications must possess the training and competencies described in item 4 below.
4. Administration of medications for procedural sedation by a RN is a specialized skill that requires specific knowledge and competencies including, but not limited to:
 - a. An understanding of the principles of oxygen delivery, transport and uptake, and respiratory physiology.
 - b. Demonstrated competency in airway management appropriate to the age of the patient including monitoring patient oxygenation and ventilation (e.g. skin color, respiratory rate, pulse oximetry, secondary confirmation of endotracheal tube placement), initiation of resuscitative measures, and utilization of oxygen delivery devices (e.g. nasal cannula, mask, basic airway techniques, oral/nasal airways, bag valve mask).
 - c. Demonstrated knowledge of anatomy, physiology, pharmacology, cardiac dysrhythmia recognition, and complications related to procedural sedation and analgesia.
 - d. Ability to initiate cardiac resuscitation procedures (e.g. CPR, cardioversion, defibrillation)
 - e. Identification and differentiation of the various levels of sedation.
 - f. Demonstrated competence in pre-procedural, procedural, and post-procedural nursing care from the initial patient evaluation to patient discharge (e.g. patient assessment and monitoring, IV fluid administration, medication administration).
 - g. The ability to recognize complications and intervene appropriately.
 - h. Knowledge of the legal/liability ramifications associated with an independently licensed RN administering procedural sedation.
5. Procedural sedation requires the presence of two licensed professionals at the bedside. One licensed professional must be a RN whose competency in procedural sedation has been verified. This RN may administer the medication or monitor the patient and must not be involved in performing the procedure. Health care professionals monitoring the patient undergoing procedural sedation must not have other responsibilities that would compromise their ability to adequately monitor the patient before, during, and after the procedure.
6. Resuscitation equipment and supplies must be age appropriate and readily available for the patient undergoing any procedure. At a minimum, equipment should include oxygen and oxygen delivery devices, suction devices and suction source, cardiac and pulse oximetry monitoring devices, defibrillator, oral/nasal airways, intubation equipment, alternative airways, bag-valve mask device, equipment to allow secondary confirmation of endotracheal tube placement, reversal agents and ACLS medications. (ACEP Guidelines for Equipment and Supplies for Use in Pediatric Patients in the ED, 2000; Alaska Board of Nursing Advisory Opinion on Nurse Administration of Sedating and Anesthetic Agents, 2007)
7. Written policies, procedures, clinical guidelines, and protocols for procedural sedation should be in place in the institution. These policies should be age appropriate and should include, but not be limited to:
 - Equipment and supplies
 - Mandatory education and competency validation
 - Risk management
 - Quality monitoring to include patient outcomes
 - Required documentation

Signed by:

Air & Surface Transport Nurses Association

American Academy of Emergency Medicine

American Association of Critical Care Nurses

American College of Emergency Physicians

American Radiological Nurses Association

American Society for Pain Management Nursing

Emergency Nurses Association

National Association of Children's Hospitals and Related Institutions

2/11/08

ADDENDUM

Procedural Sedation Consensus Statement

Definitions

Advanced Practice Registered Nurse (APRN) is an umbrella term given to a RN who has met advanced educational and clinical practice requirements beyond the two to four years of basic nursing education required of all RNs. APRNs include **nurse practitioners, clinical nurse specialists, nurse anesthetists, and nurse midwives**. Nurse practice acts vary widely among states. They define the scope of practice for APRNs within that particular state. (American Nurses Association [ANA] Nursing Facts, www.nursingworld.org)

Certified Registered Nurse Anesthetists are master's prepared advanced practice nurses who provide anesthetics to patients in every practice setting, and for every type of surgery or procedure. (<http://www.aana.com>)

Credentialing is a term applied to processes used to designate that an individual, program, institution or product have met established standards set by an agent (governmental or non-governmental) recognized as qualified to carry out this task. The standards may be minimal and mandatory or above the minimum and voluntary. Licensure, registration, accreditation, approval, certification, recognition or endorsement may be used to describe different credentialing processes but this terminology is not applied consistently across different settings and countries. Credentials are marks or "stamps" of quality and achievement communicating to employers, payers, and consumers what to expect from a "credentialed" nurse, specialist, course or program of study, institution of higher education, hospital or health service, or healthcare product, technology, or device. Credentials may be periodically renewed as a means of assuring continued quality and they may be withdrawn when standards of competence or behavior are no longer met. (Styles and Affara, 1997, International Council of Nurses Fact Sheet, http://www.icn.ch/matters_credentiaing_print.htm)

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. (American Society of Anesthesiologists [ASA] policy statement on 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 27, 2004)

Dissociative agents/dissociative sedation is described as a "trancelike cataleptic state characterized by profound analgesia and amnesia, with retention of protective airway reflexes, spontaneous respirations, and cardiopulmonary stability. (American College of Emergency Physicians [ACEP] Clinical Policy for Procedural Sedation and Analgesia in the Emergency Department, *Annals of Emergency Medicine* 2005)

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. (ASA policy statement on 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 27, 2004)

Minimal sedation (Anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilatory and cardiovascular functions are unaffected. (ASA policy statement on 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 27, 2004)

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. (ASA policy statement on 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 27, 2004)

Presence as used in the statement *“in the presence of* a physician, advanced practice registered nurse, or other health care professional describes the location of the health care professional” as being physically present at the patient’s bedside or within the confines of the patient’s immediate treatment space.

Privilege is an exceptional or extraordinary right, immunity or exemption belonging to a person in virtue of their office or status. **Clinical privileges** include, as appropriate to the organization, privileges, membership on the medical staff and other circumstances pertaining to the furnishing of medical care under which a physician, dentist or other licensed health care practitioner is permitted to furnish such care by a health plan or by a federal or state agency that either administers or provides payment for the delivery of health care services. (<http://www.oig.hhs.gov/authorities/docs/datacollection.pdf>)

Procedural sedation is defined as the technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardiorespiratory function. (ACEP clinical policy for procedural sedation and analgesia in the emergency department – **Annals of Emergency Medicine 2005**)

Six Quality Aims as defined by the Institute of Medicine are:

- **Safe:** Avoiding injuries to patients from the care that is intended to help them.
- **Effective:** Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit thereby avoiding under use and overuse, respectively.
- **Patient-centered:** Providing care that is respectful of and responsive to individual patients’ preferences, needs, and values and ensuring that patient values guide all clinical decisions.
- **Timely:** Reducing waits and sometimes harmful delays for both those who receive and those who give care.
- **Efficient:** Avoiding waste, including waste of equipment, supplies, ideas, and energy.
- **Equitable:** Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location and socioeconomic status.

(**Crossing the Quality Chasm, IOM Report.** National Academies Press, 2001)

BIBLIOGRAPHY

CLINICAL and ORGANIZATIONAL POSITION STATEMENTS

ACEP Policy Statements. Procedural Sedation in the Emergency Department (2004) and Delivery of Agents for Procedural Sedation and Analgesia by Emergency Nurses (2005).

ACEP Clinical Policy: Procedural Sedation and Analgesia in the Emergency Department. *Ann Emerg Med.* 2005 Feb; 45(2):177-196.

ACEP Clinical Policy: Evidence-Based Approach to Pharmacologic Agents Used in Pediatric Sedation and Analgesia in the Emergency Department. *Ann Emerg Med.* 2004 Oct; 44(4):342-377.

ACEP Guidelines for Equipment and Supplies for Use in Pediatric Patients in the ED (2000). Available at <http://www3.acep.org/practres.aspx?id=29134>

Alaska Board of Nursing Advisory Opinion Nurse Administration of Sedating and Anesthetic Agents (2007). Available at <http://www.dced.state.ak.us/occ/pub/nur1809.pdf>

American Nurses Association (ANA). (1991). Endorsement of position statement on the role of the registered nurse in the management of patients receiving IV conscious sedation for short-term therapeutic, diagnostic, or surgical procedures. Available at www.ana.org/readroom/position/joint/jtsedate.htm

American Society of Anesthesiologists (ASA). (2004). Continuum of depth of sedation: Definition of general anesthesia and levels of sedation/analgesia. Available at <http://www.asahq.org/publicationsAndServices/standards/20.pdf>

ENA Position Statement: Procedural Sedation and Analgesia in the Emergency Department. (2005)

ENA and ACEP Joint Position Statement: Delivery of Agents for Procedural Sedation and Analgesia by Emergency Nurses. (2005)

Institute of Medicine. (2001). *Crossing the Quality Chasm, IOM Report.* National Academies Press.

International Council of Nurses (1997). Styles and Affara, Credentialing Fact Sheet. Available at http://www.icn.ch/matters_credentiaing_print.htm

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). (2005). Comprehensive accreditation manual for hospitals: The official handbook. Oakbrook Terrace, IL.

CLINICAL PRACTICE AND RESEARCH ARTICLES

Anderson JL, Junkins E, Pribble C, Guenther E. Capnography and Depth of Sedation During Propofol Sedation in Children. *Ann Emerg Med.* 2007 Jan; 49(1): 9-13.

Bassett KE, Anderson JL, Pribble CG, Guenther E. Propofol for Procedural Sedation in Children in the Emergency Department. *Ann Emerg Med.* 2003 Dec; 42(6): 773-782.

Burton JH, Bock AJ, Strout TD, Marcolini EG. Etomidate And Midazolam for Reduction of Anterior Shoulder Dislocation: A Randomized, Controlled Trial. **Ann Emerg Med.** 2002 Nov; 40(5): 496-504.

Burton JH, Miner JR, Shipley ER, Strout TD, Becker C, Thode HC. Propofol for Emergency Department Procedural Sedation and Analgesia: A Tale of Three Centers. **Acad Emerg Med.** 2006 Jan; 13(1):24-30.

Campbell SG et al. Procedural Sedation and Analgesia in a Canadian Adult Tertiary Care Emergency Department: A Case Series. **Can J Emerg Med.** 2006 Mar; 8(2):85-93.

Chudnofsky CR et al. A Combination of Midazolam and Ketamine for Procedural Sedation and Analgesia in Adult Emergency Department Patients. **Acad Emerg Med.** 2000 Mar; 7(3): 228-235.

Dickinson R, Singer AJ, Carrion W. Etomidate for Pediatric Sedation Prior to Fracture Reduction. **Acad Emerg Med.** 2001 Jan; 8(1): 74-77.

DiLiddo L, D'Angelo A, Nguyen B, Bailey B, Amre D, Stanciu C. Etomidate Versus Midazolam Procedural Sedation in Pediatric Outpatients: A Randomized Clinical Trial. **Ann Emerg Med.** 2006 Oct; 48(4): 433-440.

Falk J, Zed PJ. Etomidate for Procedural Sedation in the Emergency Department. **Ann Pharm.** 2004 Jul/Aug; 38: 1272-1277.

Frank LR, Strote J, Hauff SR, Bigelow SK, Fay K. Propofol by Infusion Protocol for ED Procedural Sedation. **Am J Emerg Med.** 2006; 24: 599-602.

Godambe SA, Elliot V, Matheny D, Pershad J. Comparison of Propofol/Fentanyl Versus Ketamine/Midazolam for Brief Orthopedic Procedural Sedation in a Pediatric Emergency Department. **Pediatrics.** 2003 Jul; 112(1): 116-123.

Green SM. Research Advances in Procedural Sedation and Analgesia. **Ann Emerg Med.** 2007 Jan; 49(1):31-36.

Green SM, Krauss B. Clinical Practice Guideline for Emergency Department Ketamine Dissociative Sedation in Children. **Ann Emerg Med.** 2004 Nov; 44(5):460-471.

Green SM, Hummel CB, Wittlake WA, Rothrock SG, Hopkins GA, Garrett W. What is the Optimal Dose of Intramuscular Ketamine for Pediatric Sedation? **Acad Emerg Med.** 1999 Jan; 6(1): 21-26.

Guenther E, Pribble CG, Junkins EP, Kadish H, Bassett KE, Nelson DS. Propofol Sedation by Emergency Physicians for Elective Pediatric Outpatient Procedures. **Ann Emerg Med.** 2003 Dec; 42(6): 783-751.

Hunt GS, Spencer MT, Hays DP. Etomidate and Midazolam for Procedural Sedation: Prospective, Randomized Trial. **Am J Emerg Med.** 2005; 23: 299-303.

Miner JR, Biros M, Krieg S, Johnson C, Heegaard W, Plummer D. Randomized Clinical Trial of Propofol versus Methohexital for Procedural Sedation during Fracture and Dislocation Reduction in the Emergency Department. **Acad Emerg Med.** 2003 Sept; 10(9): 931-937.

Miner JR, Danahy M, Moch A, Biros M. Randomized Clinical Trials of Etomidate Versus Propofol for Procedural Sedation in the Emergency Department. **Ann Emerg Med.** 2007 Jan; 49(1): 15-22.

- Miner JR, Martel ML, Meyer M, Reardon R, Biro M. Procedural Sedation of Critically Ill Patients in the Emergency Department. **Acad Emerg Med.** 2005 Feb; 12(2): 124-128.
- Parlak M, Parlak I, Erdur B, Ergin A, Sagioglu. Age Effect on Efficacy and Side Effects of Two Sedation and Analgesia Protocols on Patients Going through Cardioversion: A Randomized Clinical Trial. **Acad Emerg Med.** 2006 May; 13(5): 493-499.
- Roback MG, Wathen JE, MaKenzie T, Bajaj L. A Randomized, Controlled Trial of IV Versus IM Ketamine for Sedation of Pediatric Patients Receiving Emergency Department Orthopedic Procedures. **Ann Emerg Med.** 2006 Nov; 48(5): 605-612.
- Roback MG, Wathen JE, Bajaj L, Bothner JP. Adverse Events Associated with Procedural Sedation and Analgesia in a Pediatric Emergency Department: A Comparison of Common Parenteral Drugs. **Acad Emerg Med.** 2005 Jun; 12(6): 508-513.
- Ruth WJ, Burton JH, Bock AJ. Intravenous Etomidate for Procedural Sedation in Emergency Department Patients. **Acad Emerg Med.** 2001 Jan; 8(1): 13-18.
- Sacchetti A, Senula G, Strickland J, Dubin R. Procedural Sedation in the Community Emergency Department: Initial Results of the ProSCED Registry. **Acad Emerg Med.** 2007 Jan; 14(1): 41-46.
- Taylor D, O'Brien D, Ritchie P, Pasco J, Cameron P. Propofol Versus Midazolam/Fentanyl for Reduction of Anterior Shoulder Dislocation. **Acad Emerg Med.** 2004 Jan; 12(1): 13-19.
- Vinson, Bradbury. Etomidate for Procedural Sedation in Emergency Medicine. **Ann Emerg Med.** 2002 Jun; 39(6): 592-598.
- Willman EV, Andolfatto G. A Prospective Evaluation of "Ketofol" (Ketamine/Propofol Combination) for Procedural Sedation and Analgesia in the Emergency Department. **Ann Emerg Med.** 2007 Jan; 49(1):23-30.
- Zink BJ, Darfler K, Salluzzo RF, Reilly KM. The Efficacy and Safety of Methohexital in the Emergency Department. **Ann Emerg Med.** 1991 Dec; 20(12): 1293-1298.