(Approved by the ASA House of Delegates on October 25, 2005, and amended on October 18, 2006)

The American Society of Anesthesiologists is vitally interested in the safe administration of anesthesia. 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 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 are, in fact, general anesthesia without having the training and experience to recognize this state and respond appropriately.

The intent of this statement is to suggest a framework for granting privileges that will help ensure competence of individuals who administer or supervise the administration of moderate sedation. Only physicians, dentists or podiatrists who are qualified by education, training and licensure to administer moderate sedation should supervise the administration of moderate sedation. This statement can be used by any facility—hospital, ambulatory care or physician's, dentist's or podiatrist's office—in which an internal or external credentialing process is required for administration of sedative and analgesic drugs to establish a level of moderate sedation.

#### REFERENCES

ASA has produced many documents over the years related to the topic addressed by this statement, among them the following:

Guidelines for Delineation of Clinical Privileges in Anesthesiology (Approved by ASA House of Delegates on October 15, 1975, and last amended on October 15, 2003)

Statement on Qualifications of Anesthesia Providers in the Office-Based Setting (Approved by ASA House of Delegates on October 13, 1999, and last affirmed on October 27, 2004)

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

Guidelines for Office-Based Anesthesia and Surgery (Approved by ASA House of Delegates on October 13, 1999, and last affirmed on October 27, 2004)

Guidelines for Ambulatory Anesthesia and Surgery (Approved by ASA House of Delegates on October 11, 1973, and last affirmed on October 15, 2003)

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

AANA-ASA Joint Statement Regarding Propofol Administration (April 14, 2004)

Practice Guidelines for Sedation and Analgesia by Nonanesthesiologists (Approved by ASA House of Delegates on October 25, 1995, and last amended on October 17, 2001)

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 27, 2004)

Practice Guidelines for Preoperative Fasting and the Use of Pharmacologic Agents to Reduce the Risk of Pulmonary Aspiration: Application to Healthy Patients Undergoing Elective Procedures (Approved by ASA House of Delegates on October 21, 1998, and effective January 1, 1999)

The Ad Hoc Committee on Sedation Credentialing Guidelines for Nonanesthesiologists took the contents of the above documents into consideration when developing this statement.

#### DEFINITIONS

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

Nonanesthesiologist Sedation Practitioner: A licensed physician (allopathic or osteopathic), dentist or podiatrist who has not completed postgraduate training in anesthesiology but is specifically trained to personally administer or supervise the administration of moderate sedation.

Supervised Sedation Professional: A licensed registered nurse, advanced practice nurse or physician assistant who is trained to administer medications and monitor patients during moderate sedation under the direct supervision of a nonanesthesiologist sedation practitioner or an anesthesiologist.

**Credentialing**: The process of documenting and reviewing a practitioner's credentials.

**Credentials:** The professional qualifications of a practitioner including education, training, experience and performance.

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**Privileges**: The clinical activities within a health care organization that a practitioner is permitted to perform based on the practitioner's credentials.

**Guidelines:** A set of recommended practices that should be considered but permit discretion by the user as to whether they should be applied under any particular set of circumstances.

#### \* Moderate Sedation: "Moderate

Sedation/Analgesia ("Conscious Sedation") is a druginduced 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."
- \* 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."

#### STATEMENT

The following statement is designed to assist health care organizations develop 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 moderate sedation. (Moderate sedation is also known as "conscious sedation.") The statement is written to apply to every setting in which an internal or external credentialing process is required for granting privileges to administer sedative and analgesic drugs to establish a level of moderate sedation (e.g., hospital, freestanding procedure center, ambulatory surgery center, physician's, dentist's or podiatrist's office, etc.). The statement is not intended nor should it be applied to the granting of privileges to administer deep sedation or general anesthesia.

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

### I. NONANESTHESIOLOGIST SEDATION PRACTITIONERS

Only physicians, dentists or podiatrists who are qualified by education, training and licensure to administer moderate sedation should supervise the administration of moderate sedation. Nonanesthesiologist sedation practitioners may directly supervise patient monitoring and the administration of sedative and analgesic medications supervised sedation professional. Alternatively, they may personally perform these functions, with the proviso that the individual monitoring the patient should be distinct from the individual performing the diagnostic or therapeutic procedure (see ASA Guidelines for Sedation and Analgesia by Nonanesthesiologists).

<sup>\*</sup>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 27, 2004).

#### A. Education and Training

The nonanesthesiologist sedation practitioner who is to supervise or personally administer medications for moderate sedation should have satisfactorily completed a formal training program in: (1) the safe administration of sedative and analgesic drugs used to establish a level of moderate sedation, and (2) rescue of patients who exhibit adverse physiologic consequences of a deeper-than-intended level of sedation. This training may be a part of a recently completed residency or fellowship training (e.g., within two years), or may be a separate educational program. A knowledge-based test may be used to verify the practitioner's understanding of these The following subject areas should be concepts.\*\* included:

- 1. Contents of the following ASA documents that should be understood by practitioners who administer sedative and analgesic drugs to establish a level of moderate sedation:
  - Practice Guidelines for Sedation and Analgesia by Nonanesthesiologists
  - Continuum of Depth of Sedation Definition of General Anesthesia and Levels of Sedation/Analgesia
- 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 moderate sedation.
- 3. Skills for obtaining the patient's medical and performing a physical history examination to assess risks and comorbidities, including assessment of the airway for anatomic and mobility suggestive of potentially characteristics management. difficult airway nonanesthesiologist sedation practitioner should be able to recognize those patients whose medical condition suggests that sedation should be provided by an anesthesia professional.

- 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 (1) the target level of sedation, (2) whether the procedure should be delayed or (3) whether the trachea should be protected by intubation."
- 5. The pharmacology of (1) all sedative and analgesic drugs the practitioner requests privileges to administer to establish a level of moderate sedation, (2) pharmacological antagonists to the sedative and analgesic drugs and (3) vasoactive drugs and antiarrhythmics.
- 6. The benefits and risks of supplemental oxygen.
- 7. Proficiency of airway management with facemask and positive pressure ventilation. This training should include appropriately supervised experience in managing the airways of patients, or qualified instruction on an airway simulator (or both).
- 8. Monitoring of physiologic variables, including the following:
  - a. Blood pressure
  - b. Respiratory rate
  - c. Oxygen saturation by pulse oximetry
  - d. Electrocardiographic monitoring. Education in electrocardiographic (EKG) monitoring should include instruction in the most common arrhythmias seen during sedation and anesthesia, their causes and their potential clinical implications (e.g., hypercapnia), as well as electrocardiographic signs of cardiac ischemia.
  - e. Depth of sedation. The depth of sedation should be based on the ASA definitions of "moderate sedation" and "deep sedation." (See above)
  - f. Capnography—if moderate sedation is to be administered in settings where patients' ventilatory function cannot be directly monitored (e.g., MRI suite).

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<sup>\*\*</sup>The post-test included with the ASA Sedation/Analgesia by Nonanesthesiologists videotape (ASA Document #30503-10PPV) may be considered for this purpose.

- The importance of continuous use of appropriately set audible alarms on physiologic monitoring equipment.
- 10. Documenting the drugs administered, the patient's physiologic condition and the depth of sedation at regular intervals throughout the period of sedation and analgesia, using a graphical, tabular or automated record.
- 11. If moderate sedation is to be administered in a setting where individual(s) with advanced life support skills will not be immediately available (1-5 minutes; e.g., code team), then the nonanesthesiologist sedation practitioner should have advanced life support skills such as those required for American Heart Association certification in Advanced Cardiac Life Support (ACLS). When granting privileges to administer moderate sedation to pediatric patients. nonanesthesiologist sedation practitioner should have advanced life support skills such as those required for certification in Pediatric Advanced Life Support (PALS).

When the practitioner is being granted privileges to administer sedative and analgesic drugs to pediatric patients to establish a level of moderate sedation, the education and training requirements enumerated in #1-9 above should be appropriately tailored to qualify the practitioner to administer sedative and analgesic drugs to pediatric patients.

#### B. Licensure

- 1. The nonanesthesiologist sedation practitioner should have a current active, unrestricted medical, osteopathic, dental or podiatric 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.)
- 2. The nonanesthesiologist sedation practitioner should have a current unrestricted Drug Enforcement Administration (DEA) registration (schedules II-V).

- 3. The credentialing process should require disclosure of any disciplinary action (final judgments) against any medical, osteopathic or podiatric 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. Before granting or renewing privileges to administer or supervise the administration of sedative and analgesic drugs to establish a level of moderate sedation, the health care organization should search for any disciplinary action recorded in the National Practitioner Data Bank (NPDB) and take appropriate action regarding any Adverse Action Reports.

#### C. Practice Pattern

1. Before granting initial privileges administer or supervise administration of sedative and analgesic drugs to establish a level of moderate sedation, a process should be developed to evaluate the practitioner's performance. For recent graduates (e.g., within two years), this may be accomplished through letters of recommendation from directors of residency or fellowship training programs which include moderate sedation as part of the curriculum. For those who have been in practice since completion of their training, this may be accomplished through communication with department heads or supervisors at the institution where the individual holds privileges to administer moderate sedation. Alternatively, the nonanesthesiologist sedation practitioner could be proctored or supervised by a physician, dentist or podiatrist who is currently privileged to administer sedative and analgesic agents to provide moderate sedation. The facility should establish an appropriate number of procedures to be supervised.

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2. Before granting ongoing privileges to administer or supervise administration of sedative and analgesic drugs to establish a level of moderate sedation, a process should be developed to re-evaluate the practitioner's performance at regular intervals. For example, the practitioner's performance could be reviewed by an anesthesiologist or a nonanesthesiologist sedation practitioner who is currently privileged to administer sedative and analgesic agents to provide moderate sedation. The facility should establish an appropriate number of procedures that will be reviewed.

#### D. Performance Improvement

Credentialing in the administration of sedative and analgesic drugs to establish a level of moderate sedation should require active participation in an ongoing process that evaluates the practitioner's clinical performance and patient care outcomes through a formal program of continuous performance improvement.

- 1. The organization in which the practitioner practices should conduct peer review of its clinicians.
- The performance improvement process should assess up-to-date knowledge as well as ongoing competence in the skills outlined in the educational and training requirements described above.
- 3. The performance improvement process should monitor and evaluate patient outcomes and adverse events.

#### II. SUPERVISED SEDATION PROFESSIONAL

#### A. Education and Training

The supervised sedation professional who is granted privileges to administer sedative and analgesic drugs under supervision of a nonanesthesiologist sedation practitioner or anesthesiologist and to monitor patients during moderate sedation can be a registered nurse who has graduated from a qualified school of nursing or a physician assistant who has graduated from an accredited physician assistant program. They may only administer sedative and analgesic medications on the order of an anesthesiologist or nonanesthesiologist

sedation practitioner. They should have satisfactorily completed a formal training program in 1) the safe administration of sedative and analgesic drugs used to establish a level of moderate sedation, 2) use of reversal agents for opioids and benzodiazepines, 3) monitoring of patients' physiologic parameters during sedation, and 4) recognition of abnormalities in monitored variables that require intervention by the nonanesthesiologist sedation practitioner or anesthesiologist. Training should include the following:

- 1. Contents of the following ASA documents:
  - Practice Guidelines for Sedation and Analgesia by Nonanesthesiologists
  - Continuum of Depth of Sedation Definition of General Anesthesia and Levels of Sedation/Analgesia
- The pharmacology of (1) all sedative and analgesic drugs the practitioner requests privileges to administer to establish a level of moderate sedation, and (2) pharmacological antagonists to the sedative and analgesic drugs.
- 3. The benefits and risks of supplemental oxygen.
- 4. Airway management with facemask and positive pressure ventilation.
- 5. Monitoring and recognizing abnormalities of physiologic variables, including the following:
  - a. Blood pressure
  - b. Respiratory rate
  - c. Oxygen saturation by pulse oximetry
  - d. Electrocardiographic monitoring
  - e. Depth of sedation. The depth of sedation should be based on the ASA definitions of "moderate sedation" and "deep sedation." (See above)
  - f. Capnography-if moderate sedation is to be administered in settings where patients' ventilatory function cannot be directly monitored.

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- 6. The importance of continuous use of appropriately set audible alarms on all physiologic monitors.
- 7. Documenting the drugs administered, the patient's physiologic condition and the depth of sedation at regular intervals throughout the period of sedation and analgesia, using a graphical, tabular or automated record.

#### B. Licensure

- 1. The supervised sedation professional should have a current active nursing license or physician assistant license or certification, in the U.S. 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.)
- 2. Before granting or renewing privileges for a supervised sedation professional to administer sedative and analysesic drugs and to monitor patients during moderate sedation, the health care organization should search for any disciplinary action recorded in the National Practitioner Data Bank (NPDB) and take appropriate action regarding any Adverse Action Reports.

#### C. Practice Pattern

1. Before granting ongoing privileges to administer sedative and analysesic drugs to establish a level of moderate sedation, a process should be developed to re-evaluate the supervised sedation professional's performance. The facility should establish performance criteria and an appropriate number of procedures to be reviewed.

#### D. Performance Improvement

Credentialing of supervised sedation professionals in the administration of sedative and analgesic drugs and monitoring patients during moderate sedation should require active participation in an ongoing process that evaluates the health care professional's clinical performance and patient care outcomes through a formal program of continuous performance improvement.

- 1. The organization in which the practitioner practices should conduct peer review of its supervised sedation professionals.
- 2. The performance improvement process should assess up-to-date knowledge as well as ongoing competence in the skills outlined in the educational and training requirements described above.