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Owner	Theodore Walker: Senior Clinical Nurse Specialist
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Moderate Sedation

Historical Number:

POLICY - PAMC/MS 951.140

PURPOSE/SCOPE

This policy applies to the administration of moderate sedation. Providence Alaska Medical Center (PAMC) recognizes the different clinical settings and situations where sedation is administered. Sedation practices throughout the organization are monitored and evaluated by the Department of Anesthesia.

The goal of moderate sedation is to achieve a level of sedation, with or without analgesia, that reduces a patients anxiety and pain so that a diagnostic, therapeutic and/or invasive procedure can be tolerated. The desired effect is that the patient can respond purposefully to verbal commands with or without tactile stimulation, maintain adequate, spontaneous ventilations, protective reflexes and communicate verbally with minimal variation in vital signs. Moderate sedation produces mild depressed level of consciousness, altered level of pain and possible amnesia.

RN and Cath Lab Technologists may not administer medications for deep sedation and will comply with rulings of the Alaska State Board of Nursing. There is a separate policy for deep sedation. They will not administer sedation to adult or pediatric patients with an ASA status of III or higher unless the physician or other Allied Health Professional privileged by PAMC in procedural sedation is immediately available.

POLICY

In keeping with the philosophy and mission of Providence Health & Services along with the Standards of the American Society of Anesthesiologists (ASA), Providence Alaska Medical Center provides policy surrounding the safe use and administration of Moderate Sedation.

DEFINITIONS/ACRONYMS

Continuum of Depth of Sedation: Definition of General Anesthesia and Levels of Sedation/Analgesia

A. **Minimal Sedation (Anxiolysis)** is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and physical coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.

B. **Moderate Sedation ("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.

C. **Deep Sedation** 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

D. **General Anesthesia** is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation.

E. **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.

F. **Obstructive Sleep Apnea (OSA):** A condition where there is reduced muscle tone in the airway leading to periodic, partial, or complete airway obstruction during sleep.

G. **Immediately Available:** Within the department or has the ability to arrive within 1 to 5 minutes, whichever is less (e.g., Code Blue Team responders).

H.

ASA PS Classification	Definition	Adult Examples, Including, but not Limited to:
ASA I	A normal healthy patient	Healthy, non-smoking, no or minimal alcohol use
ASA II	A patient with mild systemic disease	Mild diseases only without substantive functional limitations. Examples include (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30 <

		BMI < 40), well-controlled DM/HTN, mild lung disease
ASA III	A patient with severe systemic disease	Substantive functional limitations; One or more moderate to severe diseases. Examples include (but not limited to): poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA < 60 weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.
ASA IV	A patient with severe systemic disease that is a constant threat to life	Examples include (but not limited to): recent (< 3 months) MI, CVA, TIA, or CAD/ stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD or ESRD not undergoing regularly scheduled dialysis
ASA V	A moribund patient who is not expected to survive without the operation	Examples include (but not limited to): ruptured abdominal/thoracic aneurysm, massive trauma, intracranial bleed with mass effect, ischemic bowel in the face of significant cardiac pathology or multiple organ/system dysfunction
ASA E	Procedure is deemed to be an emergency	**ASA Physical Status Classification System** ***Developed By:*** *ASA House of Delegates/ Executive Committee* ***Last Amended:*** *October 23, 2019 (original approval: October 15, 2014)*

I. **Sedation Scoring System** Aldrete Score, Modified Aldrete Score for adults or the N-PASS Sedation Scoring for Neonates.

J. **Capnography** - Refers to the comprehensive measurement and display of CO2 (Carbon dioxide) including end tidal inspired CO2 and the CO2 wave form which is referred to as a capnogram. Capnography depicts respiration which includes all three components of respiration: metabolism, transport, and ventilation.

K. **Universal Protocol-** **The three principal components**, per Joint Commission, of the Universal

Protocol include a preprocedure verification, site marking (if applicable), and a time out.

L. **Procedural Time Out:** Includes verifying correct patient using 2 patient identifiers, correct procedure, correct site (marked if applicable), consent matches the procedure, safety precautions reviewed, medications labeled, and, if applicable, antibiotics, radiologic/lab studies, implants, irrigation fluids are available.

M. **Ramsey Score:** A type of sedation scale utilized to establish the desired level of sedation in a quick, safe manner.

SPECIAL CONSIDERATIONS

A. Patients not covered under this policy:
    1. Intubated patients or emergently intubated patients
    2. Patients receiving medication either by direct injection, ingestion or patient controlled analgesia (PCA) for control of pain or anxiety, which is not related to the medical procedure,
    3. Patients receiving IV medication for treatment of seizures or alcohol withdrawal.

B. Parents or legal guardians will be encouraged, when appropriate, to stay with and participate in their child's care, as they feel comfortable before, during and after the procedure.

C. The Sedation Scoring Criteria (Aldrete Score, Modified Aldrete Score or **Ramsey Sedation Scale**) cannot be changed or modified without the approval of the Anesthesia Department.

D. Adverse medication reactions are reported to the pharmacy **and a UOR is completed.**

E. In emergent situations consent is implied.

F. For patients with known or suspected obstructive sleep apnea (OSA), special considerations related to post procedural monitoring and discharge education is recommended due to the residual effects of sedatives and strong analgesics that can further suppress the patients already reduced chemoreceptor respiratory responses to hypoxia and hypercapnia. Although there is not a universally accepted criterion for patient monitoring post sedation, it is recommended that patients with OSA can be monitored longer than a non-OSA patient after receiving the last dose of sedation. As applicable, patients are instructed to wear their CPAP/ BiPAP post discharge.

PROCEDURES

A. **Equipment:** The following procedural and emergency equipment is immediately accessible and available where sedation is performed, including:
    1. A positive pressure oxygen delivery system capable of administering greater than 90% oxygen for at least 60 minutes
    2. A bag valve mask.
    3. Oral and nasal airways in various sizes and appropriate for patient age.
    4. Suction and suction catheters of appropriate size.
    5. Automated non-invasive blood pressure cuff.

6. Cardiac monitor with appropriate size pads.
7. Pulse oximeter with appropriate size probes.
8. Capnography with appropriate nasal cannula or mask adapters.
9. Emergency crash cart, with defibrillator, in the general location where the procedure is being performed.
10. Flashlight
11. Mobile telephone if no other reliable two-way communication is available.
12. Easily accessible reversal agents if applicable

B. **Pre-sedation responsibilities**

1. **Physician** who is prescribing the sedation is responsible for:
    a. Maintaining credentials and competence for moderate sedation,
    b. Assessing the adequacy of equipment and personnel to meet sedation/ anesthesia requirements,
    c. Obtaining informed consent for moderate sedation,
    d. Ordering medications including dose and route of administration, and documenting orders,
    e. Assessing NPO status and employ strategies to prevent aspiration,
    f. Performing a history and physical (H & P) that is completed immediately prior to sedation or between 24 hours and 30 days with an interval note prior to sedation. An H & P includes documentation of:
        i. Allergies and reactions to medications and anesthetics
        ii. Current medications and comorbid conditions
        iii. Indication for moderate procedural sedation
        iv. Airway assessment (Mallampati)
        v. Physical Exam
    g. Assigning ASA status,
    h. Reassessing the patient immediately prior to sedation start
2. **Registered Nurses (RN)** and Cath Lab Technologists, assisting in the sedation are responsible for:
    a. Maintain moderate sedation training in the learning management system provided by Providence Alaska Medical Center,
    b. Current BLS and ACLS, PALS, NRP as appropriate for population served,
    c. Verifying physician's moderate sedation privileges,
    d. Acquiring all monitoring and resuscitation equipment listed above,
    e. Obtaining and labeling of medications ordered by physician,
    f. Ensuring appropriate access for medication administration (e.g.

functioning intravenous line IV),

g. Ensuring reversal medications are available as applicable,

h. Verifying allergies and reactions to medications,

i. Obtaining or verifying a pre-sedation set of vital signs are completed to include- height, weight, temperature, pulse, blood pressure, oxygen saturation, level of consciousness, respirations (adequacy and number), and baseline cardiac rhythm,

j. Documenting pre-sedation Aldrete Score, Modified Aldrete Score or **Ramsey Sedation Scale** ,

k. Completing pre-procedure confirmation,

l. Verifying free and unimpeded access to the patient's chest.

m. Confirming a safe mode of transportation is available for post sedation discharge,

n. Confirming responsible adult caregiver will be with the patient for a minimum of 6 hours following sedation recovery. If adult supervision is not available discuss patient disposition with the physician.

C. **Intra-procedural responsibilities**

1. **Physician** who is prescribing the sedation is responsible for considering Anesthesia consultation for patients with an ASA score of III or higher per ASA airway algorithm.
2. **Registered Nurses (RN)** and/or Cath Lab Technologists, assisting in the sedation are responsible for:

a. The Registered Nurse may administer moderate procedural sedation to an adult patient with an ASA score of I or II, if all the criteria detailed in this policy guidelines are met. The Registered Nurse may NOT administer to adult patients with an ASA score of III or IV unless a CRNA, or Licensed Independent Provider (LIP) credentialed by the facility in moderate procedural sedation, and competent in intubation and airway management is immediately available (Alaska Board of Nursing Advisory Opinion Registered Nurse Administration of Sedating and Anesthetic Agents, 2009).

b. Performing the procedural time out with the MD and patient (when applicable) present,

c. Monitoring the patient in collaboration with the attending physician who is responsible for the care of the patient

i. Vital signs including pulse, respirations (adequacy and number), blood pressure, presence of capnography, oxygen saturation, level of consciousness, and/ or arousability (Sedation Scale such as Ramsey can be utilized) are documented every 5 minutes during the procedure.

ii. Frequent blood pressure measurements in pediatric patients receiving sedation can cause agitation and may be deferred per

physician discretion.

iii. When sedation is being performed by an anesthesiologist or CRNA, intraprocedural medications and vital sign measurements are documented by the anesthesiologist and is considered Monitored Anesthesia Care.

iv. May perform short interruptible tasks, such as opening opening additional suture and tying a gown per AORN Standards and Recommended Practices.

a. It is up to individual departments what constitutes "other tasks" to assess for appropriate staffing requirements

v. The Cath Lab Technologist is considered to be under the direct supervision and observation of the attending physician and may monitor and provide care in this phase however a RN will perform pre and post sedation monitoring, care and teaching,

vi. Documenting any change in patient condition or therapies utilized throughout procedure.

D. **Post-sedation responsibilities**

1. **Physician**: Post- Sedation Documentation
2. **Registered Nurse (RN)**:
    a. Post Sedation Monitoring to include:
        i. Obtain an initial set of vital signs immediately post sedation including pulse, blood pressure, oxygen saturation, level of consciousness, arousability, and respirations (adequacy and number),
        ii. Assignment of Modified Aldrete Score or N-PASS Score in Neonates,
        iii. A surveillance temperature,
        iv. Vital Signs a**nd Aldrete, Modified Aldrete or N-PASS to continue every 5 minutes until patient is arousable to verbal and light tactile stimulation and stable. Then every 15 minutes X 2 and 30 minutes X 1for the first hour, per unit routine, or until patient awake, conversing, and back to baseline Aldrete, Modified Aldrete or N-PASS (once** the N-Pass is back to baseline, the patient may then be discharged from post sedation care).
        v. Then per unit routine or until discharged.
    b. All patients must meet the following criteria prior to patient discharge/ transfer from the post-sedation area:
        i. A minimum of two [2] hours has lapsed after the administration of reversal agents to ensure patients do not become re- sedated after reversal effects have abated.

ii. The duration of monitoring is individualized dependent upon the level of sedation achieved, overall condition of the patient, and the nature of the intervention for which sedation was administered.

iii. OSA patients may need to stay longer than a non OSA patient. The OSA patient is observed in an unstimulated environment as much as possible, to establish the ability to maintain their baseline oxygen level.

iv. Aldrete Score of 9, Modified Aldrete Score of 18 or return to pre-sedation score or upon discretion of sedating physician

c. Transferring Patients:

i. Patient must be transferred in a gurney or crib in accordance to policy/guidelines

ii. Pediatric patient may be carried short distances as condition warrants, upon discretion of the sedating physician

iii. Hand-off communication is given to receiving unit

d. Discharging Patient to Home:

i. The patient and their responsible adult care provider understand all the home instructions, to include but not limited to:

- Procedure post care
- Sedation post care
- Continued risk for respiratory compromise could be up to a week post procedure
- CPAP/BiPAP use, if applicable, is crucial during the first week post procedure

ii. The patient may be discharged once discharge criteria is met. If the discharge criteria is not met, exceptions may be made by the sedating physician or a physician of equal competence.

iii. Discharge Criteria:

- Aldrete > or equal to 9, Modified Aldrete > or equal to 18 or a return to the patients baseline.
- Protective reflexes are intact and the patient exhibits no signs of respiratory distress.
- The patient is not suffering from nausea, vomiting, or dizziness.
- A minimum of 30 minutes has elapsed since the end of the procedure.
- The patient is accompanied by a responsible adult.

iv. The patient will be instructed not to drive, operate any heavy

equipment, or make any important decisions for the next 24 hours after the last dose of sedating agent.

3. RNs/Cath Lab Technologist must complete the HealthStream module for Moderate Sedation (including pre and post tests) prior to initiation of Moderate Sedation practice and annually per Providence Alaska Learning Institute (PALI) schedule.
4. Medical Staff sedation QI processes are utilized to track quality initiatives agreed upon by the Department of Anesthesiology.

REFERENCES

A. **Regulatory and / or Accreditation**
The Joint Commission, Comprehensive Accreditation Manual (Current Ed) CMS guidelines 42CFR582.52

B. **Policy**
Policy PAMC 970.005 - Adverse Drug Reactions Management and Reporting
Policy PAMC 957.006 - Intrahospital Transporting of Patients

C. **Other**
American Society of Anesthesiologists Task Force on Sedation and Analgesia by Non-Anesthesiologists: Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists, Anesthesiology 2002; 96: 1004-17
Alaska Board of Nursing Advisory Opinion Registered Nurse Administration of Sedating and Anesthetic Agents, 2009
HealthStream Moderate Sedation
Up To Date. (current ed.). Postoperative management of adults with obstructive sleep apnea
Perianesthesia Nursing Standards, Practice Recommendations and Interpretive Statements current ed. Practice Recommendation 10- Obstructive Sleep Apnea in the Adult Patient

END OF POLICY

HISTORY: ** NEW ** This policy replaces, in part, PAMC/MS 951.090 "Sedation Policy".

Approval Signatures

Step Description	Approver	Date
Administrative Signature	Carrie Peluso: Chief Nursing Officer	01/2023
	AK QRS: Site Administrator [IC]	12/2022
	Theodore Walker: Clinical Nurse Specialist	12/2022

Standards

No standards are associated with this document