Moderate Sedation in Adults and Children, Minimal Sedation in Children

Scope for Moderate Sedation: Unless otherwise stated, these items pertain to all moderate sedation agents (e.g., ketamine, propofol, midazolam, dexmedetomidine, etomidate, fenta**NYL** in combination with another agent(s) [e.g., midazolam, propofol], nitrous oxide in oxygen) administered to adults, neonates, and pediatric patients undergoing a procedure in any setting (e.g., hospital, surgery center, freestanding imaging facility, dental facility, private office).

Scope for Minimal Sedation: Unless otherwise stated, these items pertain to all minimal sedation agents (e.g., midazolam, diaze**PAM**, ketamine [using injection solution], compounded **PENT**obarbital, compounded chloral hydrate, nitrous oxide in oxygen) administered only to neonates or pediatric patients undergoing a procedure in any setting (e.g., hospital, surgery center, freestanding imaging facility, dental facility, private office).

Exclusions: Sedation of patients undergoing mechanical ventilation in a critical care environment, or sedation used to provide analgesia to patients postoperatively or to patients with chronic painful conditions or receiving hospice/end-of-life care.

Self-Assessment Items

A	There has been no activity to implement this item.
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C	This item has been partially implemented for some or all patients, orders, drugs, or staff.
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		A	B	C	D	E
General Items for Moderate and Minimal Sedation						
TIME-OUT Process						
1	Prior to sedation and the procedure, a standardized **TIME-OUT** is performed by the immediate members of the team that includes verification of the patient's name; the procedure; and the sedation, monitoring, and **RESCUE** plan.					
Sedation and RESCUE Plan						
2	The physician planning sedation conducts a pre-procedure assessment of the patient that includes, at a minimum: (score each item individually)					
a	Vital signs					
b	Airway risk assessment (e.g., identification of anatomical variants, potential difficulties with intubation)					
c	Health assessment and medical history to uncover problems that could impact ventilation (e.g., asthma, allergies, sleep-disordered breathing) and cardiac stability (e.g., significant cardiovascular disease, dysrhythmias) during sedation					
d	Patient's medication history, drug allergies, and previous sedation reactions					
e	Identification of potential contraindications and/or drug interactions related to possible sedation agents					
3	The patient is re-evaluated by the physician immediately before sedation to verify the appropriateness of the sedation plan of care.					

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Verbal Orders						
FAQ 4	During a procedure, drug names and doses communicated verbally by the prescriber are read back (or repeated back, if conditions do not allow immediate transcription of the verbal order) to the prescriber for verification before administration.					
Emergency Preparedness						
5	During sedation and patient recovery, supplemental oxygen and age-/size-appropriate equipment and medications that may be needed to **RESCUE** or resuscitate a sedated patient are readily accessible, regardless of the location of the procedure or recovery.					
6	In nonhospital facilities, a protocol for the immediate activation of emergency medical services (EMS) for life-threatening complications has been established, with clear understanding that this does not replace the practitioner's responsibility to provide initial **RESCUE**. ***Scoring guideline:*** *Choose Not Applicable only if your facility is a hospital.*					NOT APPLICABLE
7	For neonates and/or pediatric patients, at least one practitioner skilled in obtaining vascular access in children is available during the procedure and the recovery period. ***Scoring guideline:*** *Choose Not Applicable only if your facility never administers moderate or minimal sedation to neonates or pediatric patients.*					NOT APPLICABLE
Reversal Agents						
8	Protocols and order sets exist and are used to **RESCUE** a patient who has entered a higher level of sedation than intended, taking into consideration factors that influence the necessity and urgency of reversal.					
9	Appropriate reversal agents (e.g., flumazenil, naloxone) are readily accessible and accompanied by a clear indication for when they should be used, their order of use, directions for administration near the point of use, and a protocol or coupled order set that permits emergency administration.					
10	Reversal agents are not administered electively to solely decrease patient recovery time.					
11	Patients who receive a reversal agent are monitored for signs of resedation for at least 90 minutes after administration of the reversal agent.					
Patient Monitoring						
FAQ 12	After the procedure, patients are monitored in a recovery area staffed with practitioners who are trained to monitor and recover sedated patients.					
13	Predefined criteria for adults (e.g., Aldrete Scoring System, Post-Anesthetic Discharge Scoring System), and for neonates and/or pediatric patients if applicable (e.g., ability to remain awake for at least 20 minutes in a quiet environment), exist to determine when a patient has approached a pre-sedation state and can be discharged from the facility or no longer requires post-procedure recovery monitoring.					

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14	A longer period of monitoring beyond meeting predefined criteria (see item # 13) is required for patients who have received a long-acting sedative and/or have an anatomical airway problem or underlying medical condition that might compromise blood pressure or ventilation (e.g., sleep-disordered breathing), or if the ability of the responsible adult to observe the patient after discharge is limited.					
Accompanied by a Responsible Adult						
15	Patients who are discharged post-procedure are accompanied by a responsible adult who agrees to drive the patient home; **and** staff reasonably confirm that a responsible adult will be available to observe the patient for the remainder of the day.					
Patient Education (Includes Caregiver Education When Appropriate)						
16	Patients and/or the responsible adult staying with the patient are instructed to observe for signs of rebound sedation, and when and how to seek immediate medical attention.					
17	Special instructions are given to the adult responsible for neonates and/or younger pediatric patients who will be transported home in a car safety seat regarding the need to carefully observe the child's head position to avoid airway obstruction. ***Scoring guideline:*** *Choose Not Applicable only if your facility never administers moderate or minimal sedation to neonates or younger pediatric patients.*					
		NOT APPLICABLE				
Staff Competency and Education						
18	Practitioners involved in minimal or moderate sedation participate in at least annual reviews, **SIMULATION TRAINING** of rare emergencies, and practice drills of the facility's emergency protocols to ensure proper functioning of the equipment and coordination of staff roles in such emergencies.					
Moderate Sedation						
Anesthesia Oversight						
19	The anesthesia department is involved in developing and approving all protocols, guidelines, and/or order sets associated with moderate sedation that specify the agents or combination of agents used; the training, supervision, and privileging of practitioners who sedate or monitor patients; patient assessment and monitoring before, during, and after sedation; locations where sedation is allowed; and required emergency equipment, medications, and oxygen.					
20	The medications, routes, and dosage ranges used for moderate sedation have been selected based on known drug properties that impact their onset, duration, synergistic effects, and adverse effects; **and** they have been reviewed by an anesthesiologist and a pharmacist (or the **PHARMACY AND THERAPEUTICS COMMITTEE** or similar medical staff committee) to ensure they are supported by current literature, expert opinion, and/or national guidelines.					

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Locations						
21	The organization has conducted a thorough assessment to identify all locations where moderate sedation of patients occurs (including outpatient locations, if applicable) to standardize the care, monitor these practice sites, and provide oversight to promote safety.					
Staff Competency and Education						
22	All healthcare practitioners who administer moderate sedation have current certification in advanced airway assessment and management appropriate for the patient population (e.g., PALS; ACLS; advanced trauma life support [ATLS]; medical board certification/board eligible in emergency medicine, critical care, pulmonary medicine, anesthesia).					
23	If a registered nurse, advanced practice nurse, or physician assistant is allowed to administer certain facility-defined moderate sedation agents, such administration occurs only within the scope of their professional practice and under the direct supervision of a physician, dentist, or podiatrist qualified by education, training, and credentialing to administer moderate sedation.					
24	Only a physician, dentist, podiatrist, or other credentialed professional (e.g., nurse anesthetist) who is trained in the use of drugs causing **DEEP SEDATION**, qualified to **RESCUE** patients from **GENERAL ANESTHESIA** or severe respiratory depression, and not simultaneously involved in a procedure, are permitted to administer medications that could lead to **DEEP SEDATION** of non-ventilated patients (e.g., propofol, ketamine, etomidate), even if moderate sedation is intended. (PALS or ACLS certification alone is not sufficient.)					
25	Practitioners who titrate moderate sedation agents to effect have received training about each drug's onset, peak, and duration; how to determine whether a previous dose has taken full effect before administering another dose; and to consider other drugs administered that might increase the risk of hypotension or sedation, to prevent overdoses caused by **DOSE STACKING**.					
Protocols and Guidelines						
26	A standard protocol for moderate sedation of adults exists, which includes uniform monitoring requirements; **and** the protocol is employed regardless of the setting in which the sedation and procedure occur. ***Scoring guideline:*** *Choose Not Applicable only if your facility does not provide care to adults.*					NOT APPLICABLE
27	A standard protocol for moderate sedation of neonates and/or pediatric patients exists, which includes uniform monitoring requirements; **and** the protocol is employed regardless of the setting in which the sedation and procedure occur. ***Scoring guideline:*** *Choose Not Applicable only if your facility never administers moderate sedation to neonates or pediatric patients.*					NOT APPLICABLE
28	Protocols or guidelines have been established to assist practitioners with titrating drugs used for moderate sedation to effect; **and** the protocols or guidelines include the recommended incremental doses; intervals between doses; the onset, peak, and duration of the drugs; and any special considerations.					

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Products Used						
29	Only a 1 mg/mL strength of midazolam injection is provided to procedural areas to prevent dosing confusion and facilitate slow titration of the drug. ***Scoring guideline:*** *Choose Not Applicable only if your facility never stocks midazolam injection in procedural areas.*	NOT APPLICABLE				
30	If the 100 mg/mL strength of ketamine is dispensed to and/or stocked in procedural areas (e.g., for intranasal or IM injection), an auxiliary label warns that the drug should not be administered IV without dilution. ***Scoring guideline:*** *Choose Not Applicable only if your facility never stocks ketamine 100 mg/mL in procedural areas, or never dispenses the product to procedural areas.*	NOT APPLICABLE				
31	If a combination of ketamine and propofol is used for moderate sedation, the drugs are not mixed together in the same syringe or infusion bag; **and** the combination is never referred to as "ketofol" or another coined name. ***Scoring guideline:*** *Choose Not Applicable only if your facility never uses a combination of ketamine and propofol for moderate sedation.*	NOT APPLICABLE				
Patient Monitoring						
32	In addition to the practitioner performing the procedure, a second ACLS- and/or PALS-trained practitioner with knowledge of the emergency cart inventory and/or emergency response is responsible for monitoring the patient during the entire procedure without competing responsibilities, and for assisting in any supportive or resuscitation measures, if required.					
33	During moderate sedation, the adequacy of ventilation and other patient parameters are evaluated by continual observation of clinical signs, pulse rate, blood pressure, counted respiratory rate or minute ventilation, depth and quality of respirations, and pulse oximetry and/or capnography.					
34	After the procedure, patients who received moderate sedation are monitored for signs of respiratory depression at facility-defined frequencies (e.g., every 10-15 minutes) by evaluating the patient's level of sedation; vital signs (including rate, depth, and quality of respirations); and pulse oximetry and/or capnography results until the patient has approached a pre-sedation state and no longer requires post-procedure recovery monitoring per the facility's predefined criteria (see item # 13).					
Minimal Sedation in Children						
Scoring guideline: *Choose Not Applicable for these items only if your facility never prescribes, dispenses, or administers minimal sedation to children.*						
Protocols and Order Sets						
35	A standard protocol exists and is followed for minimal sedation of neonates and/or pediatric patients by a **NONANESTHESIOLOGIST SEDATION PRACTITIONER** outside the operating room, which includes uniform, specialty-independent monitoring requirements.	NOT APPLICABLE				

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Order Verification						
36	A pharmacist reviews and verifies all orders for minimal sedation of a child prior to administration.	NOT APPLICABLE				
Administration						
37	Only trained healthcare workers (not parents or other care providers) administer oral sedatives (e.g., midazolam) to neonates and/or pediatric patients in preparation for a procedure, after the child has arrived at the facility to ensure proper supervision, cardiorespiratory/neurologic monitoring, and immediate access to resuscitation equipment and medications in the event of respiratory depression.	NOT APPLICABLE				
38	Pharmacy dispenses all prescribed doses of oral liquid medications for minimal sedation in unit-dose cups that contain the exact prescribed amount, or in patient-specific oral syringes that display the volume using the metric scale; **and** these doses include a bar-coded label listing the drug name, concentration, patient's dose, and expiration date.	NOT APPLICABLE				
39	Oral liquid medications used for minimal sedation are administered via a dosing cup or oral syringe marked "Oral Use Only" (never from a **PARENTERAL** syringe).	NOT APPLICABLE				
Monitoring						
40	Prior to the procedure but after minimal sedation has been administered, neonates and/or pediatric patients are monitored in an area that is staffed with practitioners trained to monitor sedated children and stocked with appropriate emergency equipment and medications.	NOT APPLICABLE				