

***Pediatric
Sedation
Pocket
Reference***



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Introduction

This reference gives clinical staff information about medications used for procedural sedation in pediatric patients. The information is presented in a concise, condensed format for ease of use. However, it is *not* a complete resource for sedation drug administration, monitoring, and policy. Your institution's policies and procedures for procedural sedation are essential to a child's overall care during sedation.

This guide is recommended for use with the *Pediatric Procedural Sedation* e-learning module (catalog # 318001). You can order this module at www.maxishare.com.

Important clinical notes

This booklet is organized first by route of administration—then in order by suggested use.

- Medication needs to be titrated to the desired effect.

- Be aware of additive effects of combining various drug classes. Consider reducing doses by 25% for each drug when used in combination with other medications.
- Accurate sedation scoring is critical for safe sedation. Staff must always be prepared to respond to a deeper than intended level of sedation.
- Oxygen, suction, monitoring and resuscitative equipment, and medications must be immediately available and operational at all times during procedural sedation and recovery. Airway monitoring and support are critical to safe sedation.



Reminder: The universal rescue maneuver is:

- Mouth opening
 - Jaw thrust maneuver
 - Use of supplemental oxygen while maintaining the patient airway
- Document the sedation procedure according to your institution's documentation or sedation policies and procedures.

Sedation risk assessment

Patients at higher risk for procedural sedation include patients with:

- a) Inadequate NPO time (see guidelines on page 8)
- b) Upper airway obstruction (stridor when awake)
- c) Sleep apnea or significant snoring
- d) Mandibular hypoplasia, craniofacial abnormalities, or history of difficult airway during anesthesia or sedation
- e) Active vomiting, delayed gastric emptying
- f) Significant gastro-esophageal reflux, particularly with history of aspiration
- g) Pre-existing significant neurologic dysfunction or depressed consciousness
- h) Hypovolemia, cardiac disease, or other potential for alteration in perfusion
- i) Pneumonia, reactive airway disease, or other disorder of gas exchange or pulmonary mechanics
- j) History of sedation failure

Sedation ***techniques with higher risk*** include:

- a) Deep sedation, regardless of intended depth or drugs administered
- b) Non-elective sedation
- c) Combination drug therapy, particularly opioids and hypnotics
- d) Medications administered in large doses instead of titration
- e) Use of high-potency or ultra short duration drugs with low therapeutic index
- f) Use of opioids for sedation instead of analgesia

AAP guidelines for NPO status before elective procedure

	Solids and Non-clear Liquids*	Clear Liquids
Adults	6–8 hours or after midnight**	2–3 hours
Children > 36 months	6–8 hours	2–3 hours
Children 6–36 months	6 hours	2–3 hours
Infants 0–5 months	4–6 hours	2 hours

* This includes milk, formula, and breast milk (high fat content may delay gastric emptying).

** There are no data to establish whether a 6–8 hour fast is equivalent to an overnight fast before sedation/analgesia.

Documentation and discharge criteria

This should match your institution's policies and procedures.

- Post sedation orders including vital signs must be written. Monitoring will continue at 5-minute intervals until sedation score of ≥ 4 post procedure, and then every 15 minutes until discharge criteria are met.
- Patients are discharged or discontinued from monitoring when all of the following criteria are met:
 - Time of medication maximum/peak effect has passed.
 - The sedation score is 4 or higher.
 - Cardiovascular and airway stability is established at pre-intervention status.
 - Oxygen saturation is at pre-intervention status.
 - Pain is adequately controlled.
 - Nausea/Vomiting is controlled.
 - All post-procedural orders have been completed.
- All moderate and deep sedation documentation is done according to your institution's documentation or sedation policies and procedures.

Sedation score



Reminder: Remember to assess the pain score along with the sedation score.

The rationale for sedation scoring is to guide quantitative assessment of depth of sedation. The following scale is adapted from the Ramsay sedation scale for a wider range of sedation continuum.

	MINIMAL		MODERATE	DEEP		
6	5	4	3	2	1	0
Agitated, anxious, or in pain above baseline	Spontaneously awake without stimulus; may exhibit anxiety	Drowsy but easily arouses to consciousness to light tactile or verbal/tactile stimulus	Arouses to consciousness with moderate tactile or loud verbal stimulus	Arouses slowly to consciousness with sustained painful tactile stimulus	Arouses, but not to consciousness, with painful stimulus	Unresponsive to painful stimulus