

**APPENDIX: J**  
**TITLE: NASAL/RECTAL MEDICATION PROCEDURE**

**REVISED: January 28, 2010**

**I. BACKGROUND:**

Intranasal (IN) and Rectal (PR) administration of certain medications are alternatives when traditional vascular access (IV, IO) is not available or not desired. IN and PR administration may also be utilized when other routes (IM, SQ) would take too long to reach peak effects.

IN Midazolam has a slightly slower onset of action and peak effect compared to IV Midazolam, but acts twice as fast and has a 1-3 time higher peak plasma levels than PR and oral Midazolam. Therefore the IN route is preferred over PR for Midazolam.

IN Narcan is preferred over IM or sublingual (SL) Narcan due to the lower risk of needle sticks in a high-risk population. In addition IN Narcan has a predictable and rapid absorption rate faster than IM and comparable to SL. IV access is still the preferred method due to the possible complications with an unrecognized poly-pharm overdose.

**II. EQUIPMENT:**

3 cc slip syringe, injection needle, or vial spike.  
 Lubricant (Lubifax or equivalent) [for rectal use only]  
 Atomizer [for nasal use only]  
 Medication of choice:

- VALIUM (RECTAL)
- VERSED (NASAL)
- NARCAN (NASAL)

**III. INDICATIONS:**

- Status epilepticus without vascular access.

**IV. PROCEDURES:**

**RECTAL ADMINISTRATION:**

- Draw Valium into a syringe (draw only the amount to be administered).  
 \*If subsequent doses are required, use the same Valium ampule with a new syringe/needle. This method is suitable for short-term use.
- **REMOVE THE NEEDLE.**
- Lubricate the syringe.
- **Carefully** insert the syringe (through the anus past the rectal sphincter) -- approximately 3 to 5 cm [Note: Be careful not to inject directly into stool mass as rectal absorption will be poor].
- ADMINISTER THE APPROPRIATE AMOUNT OF VALIUM:
  - a. Up to 8 years of age: 0.5 mg/kg/dose (PRN) every 5 - 10 minutes  
**MAXIMUM DOSAGE: 10 mg**
  - b. 8 years of age and over: 5-10 mg every 5-10 minutes PRN  
**MAXIMUM DOSAGE: 20 mg**
- Monitor for desired effects.

**NASAL ADMINISTRATION**

- Draw medication into a syringe (draw only the amount to be administered).
- **REMOVE THE NEEDLE and attach the Atomizer**
- **Carefully** insert the Atomizer into a naris
- ADMINISTER THE APPROPRIATE AMOUNT OF VERSED:  
Up to 10 years of age: 0.2-0.4 mg/kg (PRN) every 5 minutes  
**MAXIMUM DOSAGE: 5 mg**
- ADMINISTER THE APPROPRIATE AMOUNT OF NARCAN:  
Over 8 years of age: 1-2 mg every 5-10 minutes as needed  
**MAXIMUM DOSAGE: 4 mg**
- Place a gloved finger over the nares to keep the medication in for 1-2 minutes.
- Monitor for desired effects
- Avoid giving more than 2 cc per nares. If required, split the dose between each nares

**Caution: Certain conditions may make nasal administration of a medication ineffective. Epistaxis, excessive mucous, nasal trauma, and septal abnormalities may inhibit absorption. If these conditions are present, alternative routes may be advisable.**