Summary of Pediatric Procedural Sedation: Nightfloat Curriculum

1. Sedation is a continuum, ranging from awake to deep sedation with minimal and moderate sedation in between. The provider can aim for one level of sedation, but has to understand that this is not an exact science and the patient may be a level above or below the intended sedation goal.

2. If the use of a sedative or analgesic is associated with a procedure then it constitutes procedural sedation. Versed for a nasogastric tube, Morphine for a dressing change, Ativan for an MRI.

3. It is very important to titrate the sedation medications to achieve the desired level of consciousness (unconsciousness).

4. Physical assessment of the patient is performed just prior to the sedation event to determine the safety and choice of medications to be used. Just as important is an assessment of the patient's emotional state to estimate the depth of sedation required. Child life specialists can be very helpful in the latter assessment if available for the night team.

5. Discussion with the provider performing the procedure is essential to determine the estimated length of the procedure, the pain associated with the procedure, the amount of movement tolerated by the provider. Once those questions are answered, the sedation/analgesic medications of choice are typically identified. There is always more than one option/choice for sedative/analgesic medications and even the route of administration (Intranasal, oral, intravenous or intramuscular).

6. Informed consent for the sedation should include a discussion of the need for the sedation (referencing the pain and anxiety), an estimate of success in obtaining the sedation level of consciousness options for sedation level (if possible) and the risks associated with each sedation level. An option to refuse or an alternative to sedation (Operating room or no sedation) should be given.

7. Equipment needs for procedural sedation/analgesia: **SOAPME**

    a. **Suction**-functional wall or portable units with Yankauer tips. Test the device before sedating the patient.

    b. **Oxygen**-functional wall or portable tanks with both mask and Ambu-bag available at the bedside. If possible, have both a wall supply for the Ambubag and a portable tank for appropriate face mask, this will avoid confusion during an emergency (is the bag or face mask attached to the supply?).

    c. **Airway**-oral airway of appropriate size should be at the bedside with a provider comfortable with insertion and an Ambu-bag to ventilate/oxygenate. A towel roll to position the child in the chin lift position should be at the bedside.

    d. **Pharmacy**-sedation/analgesic medications and reversal agents (Narcan for Fentanyl (other narcotics) and Flumazenil for Midazolam (other benzodiazepines)) should be at the bedside. Narcan is given at 0.01 mg/kg/dose (max 2mg/dose). Flumazenil is given at 0.01 mg/kg/dose (max 0.2 mg/dose).

e. **Monitoring**-functional pulse oximetry and cardiac/respiratory monitor attached to the patient as per hospital policy.

f. **Equipment**-a code cart should be immediately available (not more than 1 minute away)

8. NPO status is important but if a limb or life is in danger then call the attending of record and/or anesthesia to back you up.

9. Never do a sedation if you are uncomfortable with the patient's ASA status , NPO status or other parameter. Call the supervisory resident, attending or anesthesia for help.

10. While in some situations, locations or institutions performing the sedation and the procedure is acceptable, know your limits, do not multi-task if it is too difficult (playing the game of Twister as you sedate and perform a LP).