

# Pediatric Sedation Outside of the Operating Room; A Virtual Reality Experience



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# Introduction:

Pediatric procedural sedation outside of the operating room is a complex, yet a fundamental skill necessary for specific medical professionals

The sedation curriculum comprises of management of the airway of pediatric patients, recognizing complications, and understanding the indications, contraindications, and methods for a safe procedure

In our experience, residents having limited exposure during their 2 week rotation, were not adequately trained to manage some rarely used sedatives and life threatening situations.

## Aim:

To prepare the learners for appropriate interventions allowing them to visualize each step for infrequent but high-stakes skills in a simulated environment

## Methods:

Virtual reality offers both an immersive experience as well as a controlled training environment engaging a wide variety of learners rendering it a more fulfilling experience.

Content experts in pediatric sedation developed the outline with learning objectives, assessment tasks, and debriefing for each module with the VR technology using imported 3D footages and images creating educational experience for the learners.

## Content Outline:

1. Recognition and Management of life-threatening complications such as
  - Laryngospasm
  - Chest wall rigidity with Fentanyl use, and
  - Apnea
2. Introduction to Nitrous Oxide in sedation
3. Monitoring during and after sedation

## Project's Impact:

- Virtual Reality (Enduvo) was a practical solution providing self directive, experiential learning
- Simulation based learning with the goal of maintaining patient safety

## Future Directions:

- The curriculum is easy, reproducible and modifiable over time
- This software is invaluable for training rare situations in other specialties
- Opportunity to expand this curriculum for competence training for credentialing of new sedation providers.



# Thank You !

## QUESTIONS?



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