Center for Experimental & Learning Enhancement (CEL) CRISSES collaboratively closes with Vanderbilt’s Center for Experimental & Learning Enhancement to foster innovation by integrating cutting-edge simulation technology with the creation of clinical scenarios. CRISSES combines the advanced capabilities of simulation technology with the depth of expertise in clinical training and education. CRISSES is a research and educational facility that provides a realistic and immersive environment for medical professionals to practice and improve their clinical skills.

**Pre-op VR Redesign**

**Current Application**: U-shaped entry for patients and families

**New Design**: Clear, easy command structure and friendly interface

**Benefits**: Reduces patient anxiety and improves patient experience.

**Methods**

- **3D rendering and virtual reality**: Provides a realistic and immersive experience for patients and families.
- **User-centered design principles**: Focuses on the user experience and ensures that the design is intuitive and user-friendly.

**Findings**

- **Increased patient satisfaction**: Patients and families reported higher satisfaction levels with the new design.
- **Decreased anxiety levels**: Patients and families showed lower levels of anxiety when using the new design.

**Conclusion**

The redesign of the pre-op VR significantly improved the patient experience, reduced anxiety levels, and increased overall satisfaction.

**Therapeutic Dose of Morphine**

**Method**

- **Prospective open-label randomized control trial**
- **Recruitment of patients with cancer pain**
- **Randomization to therapeutic or sub-therapeutic doses**

**Findings**

- **Efficacy and safety of morphine**: The therapeutic dose of morphine was found to be effective and safe in treating cancer pain.
- **Adverse effects**: A lower incidence of adverse effects was observed in the therapeutic dose group compared to the sub-therapeutic dose group.

**Conclusion**

The therapeutic dose of morphine is an effective and safe treatment option for cancer pain.

**Simulation-Based Performance Assessment**

**Method**

- **High-fidelity simulation**: Realistic and immersive environment
- **Scenario-based training**: Simulates real-world patient care situations

**Findings**

- **Improved clinical decision-making**: Participants demonstrated improved clinical decision-making skills.
- **Increased teamwork and communication**: Participants showed improved teamwork and communication skills.

**Conclusion**

Simulation-based performance assessment is an effective way to evaluate and improve clinical performance.

**Cognitive Aids to Support Emergency Situations in Pediatric Surgery**

**Method**

- **Retrospective video analysis**: Analyzed clinical decision-making in pediatric surgery emergencies
- **Identification of cognitive aids**: Identified specific cognitive aids used in emergency situations

**Findings**

- **Identification of cognitive aids**: The use of cognitive aids significantly improved clinical decision-making in pediatric surgery emergencies.
- **Enhanced outcomes**: Improved clinical outcomes were observed in cases where cognitive aids were used.

**Conclusion**

Cognitive aids are essential in improving clinical decision-making in pediatric surgery emergencies.