

# Evidence-Based Practice Guidelines for the Pediatric Autism Spectrum Disorder Population Utilizing the AIDEN Acronym

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## Abstract

**Background:** Children with autism spectrum disorder (ASD) experience significant challenges in their interactions with healthcare providers in a clinical setting. This is due to issues with communication, social interaction, and sensory sensitivities to anesthetic treatment during premedication or preoperative environments. It is important to maintain and update the current standards of care for children with ASD while utilizing evidence-guided strategies to provide a pre-operative assessment effectively.

**Problem:** The pre-operative assessment is a critical component that renders impact throughout the surgical experience with the purpose of risk stratification, preparation of altering the normal physiology of the patient, and emergence from anesthesia. A lack of facility guidelines on how to tailor the anesthetic approach to this patient population leaves a potential margin of error that could endanger the expected outcome of the patient undergoing surgery and contribute to a vastly growing healthcare disparity.

**Purpose:** The purpose of this project is to examine existing contemporary literature on anesthesia preoperative care of the ASD population, with a focus on evaluating the current standards of care in place, and the utilization of new evidence-based guidelines to improve the quality of care.

- Develop EBP guidelines
- Develop a comprehensive plan to implement these guidelines
- Develop a plan to monitor/measure the guidelines efficacy
- Develop a plan to adjust the guidelines if outcomes are less than desirable

## Introduction

### Identification of the Clinical Problem

- 1 in 54 children are affected by ASD
- Children with ASD have an increased rate of hospital contact, likely to require sedation and anesthesia
- The peri operative environment poses challenge to daily routine , sensitivities to sensory input, and communicative difficulties
- With an increasing, prevalent population, requiring the care of anesthesia personnel to endure both routine and complex procedures, best-practices is an area of concern

### Significance of the Problem to Anesthesia

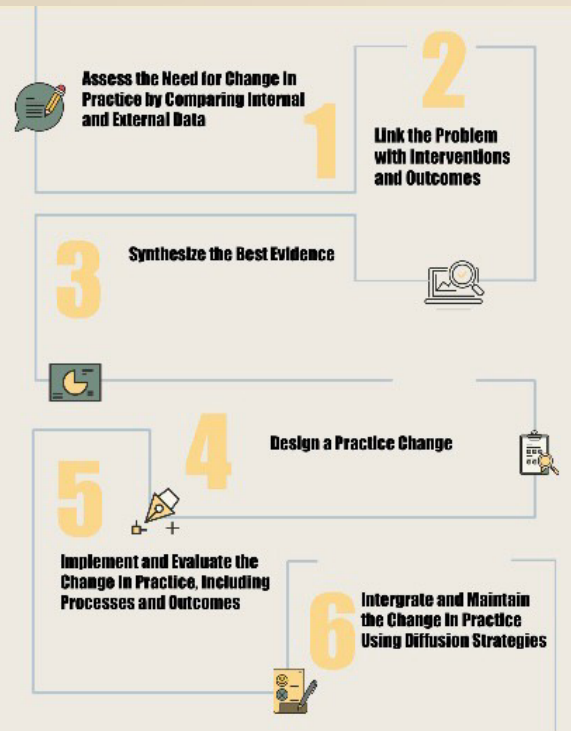
- A proper preoperative assessment is beneficial in risk stratification, optimizing a patient’s health, and developing an anesthetic plan. As a standard of care, as implemented by our governing body the AANA, Standard II was designed and enforced in effective care delivery.
- The existing barriers to providing an effective pre-operative assessment pertains to lack of education and training
- Poses significant risk including potential injury to the child, staff, and the inability to complete necessary procedures

## Problem Statement

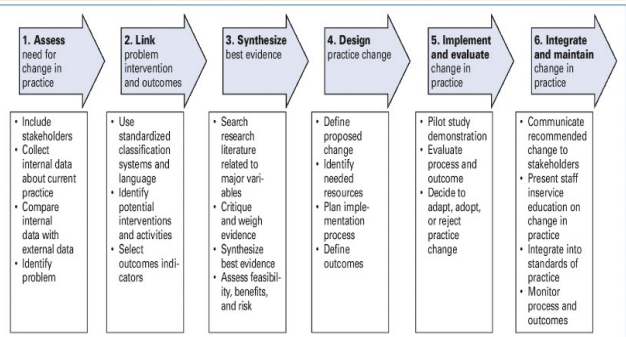
### PICOT Question

- In the pediatric patient diagnosed with ASD (P), would the development and implementation of new evidence-based practice guidelines (I), compared to the traditional approach (C), affect compliance with pre-operative assessment, patient anxiety, the use of pre-operative anxiolytics, and patient/family satisfaction (O), at three, six, and 12-month, intervals?

## Project Description



## Theoretical Framework



Russwurm and Larrabee Model for Evidence-Based Practice (Russwurm & Larrabee, 1999)



## The Aiden Acronym

- A: Acknowledge and Assess
- I: Interdisciplinary Approach
- D: Do Not Disturb
- E: Educate Staff
- N: Necessity of Anxiolytics

## Implementation

- A 4-hour, in-person educational seminar
- Aiden Acronym Epic flag accompanied by wrist bands
- Child Life – Specialists severity index measuring during pre-operative walk through
- Identify trained specialty roles termed “puzzle solvers” with an identifying puzzle badge pin
- Schedule as first case of the day

## Outcome Analysis Plan

- A comparison of data between pre-intervention and post-intervention is necessary to evaluate the efficiency of the new evidence-based “AIDEN” acronym
- Use of pre-operative anxiolytics
- Patient/Family surveys
- Staff surveys
- Amount of pediatric ASD population encounters at the facility

## Project Timeline

- Application to facility IRB May of 2023
- Educational Seminar Completed by December of 2023
- Initiation January 2024
- July 2024 (6-month interval)
- January 2025 (12-month interval)

## Conclusion

- Best practice guidelines are not the standard of care at an urban level-one pediatric trauma hospital.
- A reliable, evidence-based approach is necessary to provide safe, quality care to patients with ASD.

## References



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