

Parent Present Induction of Anesthesia in Children with Autism: Parental Preparation

Debby Rannalli, DNP, RN, CPNP-PC and Margaret Brady, PhD, RN, CPNP-PC

Background and Need

- Emotional fragility and potential behavioral difficulties of children with Autism Spectrum Disorder (ASD)
- For the child with ASD the anesthesia experience can provoke panic attacks, tantrums, combative behavior, terror and confusion
- In the spectrum of autism, some children may be non-communicative of words, unable or refusing to take approved pre-op sedation medication and need familiarity such as a parent or caregiver to be close by
- Yet, parents/caregivers who accompany the child to the OR need appropriate preparation to lessen their own anxiety in order to support their child with autism
- This patient population is an area of Family Centered Care not studied in the OR



Research Questions

- Does parent presence during the induction of anesthesia (PPIA) reduce the level of anxiety of children with autism undergoing this procedure?
- Is the educational handout, titled *Parent Present During Induction of Anesthesia (PPIA)*, an effective tool to educate parents about the anesthesia process before the parent goes into the operating room to support their child during anesthesia induction procedure?

Methods

- An exploratory study design was chosen for this pilot study
- Institutional Research Approval was granted by the University and the participating hospital.
- Perceptions of parents/caregivers of children with Autism Spectrum Disorder (ASD) undergoing general anesthesia for dental procedures were solicited
- An education handout describing the induction of anesthesia experience and the role of the parent in the operating room was developed for the study
- Participants completed an 11-item survey, scored on a Likert scale, assessing parent-caregiver and child anxiety level and usefulness of the education handout. Two sample survey questions were:
 - My presence in the operating room helped to lower my child's level of anxiety while he/she was given anesthesia.
 - I feel that I knew what to do in the operating room: like putting on the cover-up, hat and where to stand after reading the handout.

Sample Items on the *Information Sheet for Parents/Caregivers*

- Once you are escorted up to the Pre-operating room (OR) area, your child's anesthesiologist will meet with you and decide about your presence in the OR during the anesthesia initial procedure. The decision depends on many reasons that the anesthesiologists takes into consideration.
- If the anesthesiologist decides you may accompany your child with autism into the OR then you must follow the procedures in this handout.
- During the induction of anesthesia, you may notice the anesthesiologist may use a mask to assist your child's breathing. Again this is a common procedure that is used while your child receives anesthesia.
- Once your child falls asleep the anesthesiologist will notify you that it is time to leave the OR.



Results

- Results were strongly suggestive that parents/caregivers perceived that accompanying their child with autism to the OR for anesthesia induction reduced the child's anxiety
- Twenty-two parents agreed to participate
- The results of the parent's perception to their presence reducing their child's anxiety in a positive query were significant, 5.21 (t(22)=10.361, P<0.001)
- Results to the same questions given in a negative query were also significant 5.05 (t(22)=3.352, p=0.003)
- Parents also reported that the informational handout was effective; p-value for all handout questions was <0.001



Conclusion

It is valuable to have parents accompany their autistic child to the OR for induction of anesthesia when the child refuses or is unable to take the approved pre-op sedation medication

With educational preparation, parental presence reduces the child's anxiety and contributes to a smoother transition to surgery

Nurses can play an important role in providing educational preparation prior to parental presence during anesthesia induction