Perioperative Tools to Increase Compliance and Reduce Anxiety in Children with Autism Spectrum Disorders

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Purpose

- To develop a plan for increased compliance and anxiety reduction with perioperative care among children with Autism Spectrum Disorders (ASD)
Significance

- 1 in 68 U.S. children have ASD
- 51 children with ASD required anesthesia in July
- Children at risk for:
  - ↑ anxiety
  - ↑ behavioral problems
  - ↓ cooperation during perioperative period
- Parents and staff ↑ risk for stress/dissatisfaction
<table>
<thead>
<tr>
<th>Surveillance Year</th>
<th>Birth Year</th>
<th>Number of ADDM Sites Reporting</th>
<th>Prevalence per 1,000 Children (Range)</th>
<th>This is about 1 in X children...</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1992</td>
<td>6</td>
<td>6.7 (4.3 – 9.9)</td>
<td>1 in 150</td>
</tr>
<tr>
<td>2002</td>
<td>1994</td>
<td>14</td>
<td>6.6 (8.3 – 10.6)</td>
<td>1 in 150</td>
</tr>
<tr>
<td>2004</td>
<td>1996</td>
<td>8</td>
<td>8.0 (4.6 – 9.8)</td>
<td>1 in 125</td>
</tr>
<tr>
<td>2006</td>
<td>1998</td>
<td>11</td>
<td>9.0 (4.2 – 12.1)</td>
<td>1 in 110</td>
</tr>
<tr>
<td>2008</td>
<td>2000</td>
<td>14</td>
<td>11.3 (4.8 – 21.2)</td>
<td>1 in 88</td>
</tr>
<tr>
<td>2010</td>
<td>2002</td>
<td>11</td>
<td>14.7 (14.3 – 15.1)</td>
<td>1 in 68</td>
</tr>
</tbody>
</table>
Methods

- Evidence Based Practice Project
  - Titler’s Iowa Model (2001)
  - Intra-professional team
  - Literature search
    - Terms: Autism Spectrum Disorder, ASD, anxiety, perioperative, children, tools
    - Level of Evidence
      - 2 Level I
      - 1 Level II
      - 5 Level III
      - 3 Level IV
    - Quality of Evidence
      - Grade A
      - Grade B
Outcomes

Parent Questionnaire
• Communication
• Behavior
• Suggestions for my child

Nursing Checklist
• Environmental controls/distraction
• Child Life referral

Preoperative Special Accommodations Questionnaire

<table>
<thead>
<tr>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>My child:</td>
</tr>
<tr>
<td>☐ Speaks in full sentences ☐ Speaks in short phrases</td>
</tr>
<tr>
<td>☐ Speaks 1-2 word responses</td>
</tr>
<tr>
<td>☐ Non-verbal ☐ Uses a communication device</td>
</tr>
</tbody>
</table>

My child communicates best using:
☐ Spoken language ☐ Pictures ☐ Written Words

Preoperative Autism Spectrum Disorder Checklist
☐ Preoperative Special Accommodations Questionnaire completed
☐ Quiet environment provided
☐ Non-essential items removed from preoperative room
☐ Notification of Child Life Specialist
Implications

Nursing Practice

- Improved outcomes
- Implementation
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Cook Children’s Medical Center, Fort Worth, Texas

Purpose
To develop a plan for increased compliance and anxiety reduction with perioperative care among children with Autism Spectrum Disorders (ASD)

Significance
1 in 68 children (1 in 42 boys and 1 in 189 girls) diagnosed with an Autism Spectrum Disorder (ASD)

In July, Fifty one children with an ASD diagnosis required anesthesia for procedures at Cook Children’s Medical Center

Children with ASD may exhibit increased anxiety, behavioral problems, and lack of cooperation during perioperative period

Children with ASD are at increased risk for a frightful perioperative experience and increased stress for patient, family, and staff

Methods
Evidence Based Practice Project

- Evidence-Based Practice Project
- Titler’s Iowa Model (2001)
- Intra-professional team
- Literature search:
  - Terms: Autism Spectrum Disorder (ASD), anxiety, perioperative, children, tools
  - Level of Evidence:
    - 2 Level I
    - 1 Level II
    - 5 Level III
    - 3 Level IV
- Quality of Evidence
  - Grade A
  - Grade B

Outcomes
Evidence-based innovations included new forms and interventional strategies such as use of Rover® cart and unit-specific storyboards for surgical preparation of children with ASD. A preoperative nurse checklist and a parent questionnaire were designed to involve parents, nurses, and Child Life in customized-care planning pre-surgery

Outcomes

- Parent Questionnaire
  - Communication
  - Behavior
  - Suggestions for my child

- Nursing Checklist
  - Environmental controls/distraction
  - Child Life referral

Implications
Incorporation of individualized perioperative support strategies in children with ASD facilitates care and reduces anxiety

Finalization of nursing checklist and parent questionnaire for implementation
References


