Supplementary Online Content


eFigure. Survey for human errors in strabismus surgery
eTable. Detection/correction of error and presence of surgical assistants

This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure. Survey for human errors in strabismus surgery. Sample of the paper survey distributed at the American Association for Pediatric Ophthalmology and Strabismus 2011 national meeting.
1. Have you ever operated on the wrong eye, the wrong muscle, or performed the wrong surgery (e.g. resect instead of recess) during strabismus surgery?
   - O YES, as attending surgeon
   - O YES, as assistant surgeon
   - O NO
   
   If NO, skip Questions 2-7 and proceed to Question 8.

2. How many times has this happened during your career as attending surgeon? ________________

3. For your most recent case of wrong eye/muscle/surgery, did you realize the mistake:  
   - O During surgery, while patient was still under general anesthesia
   - O Same day as surgery, but after the case had been completed
   - O Postoperative day 1
   - O Postoperative day 2-7
   - O Greater than postoperative day 7

4. Did you communicate the mistake to the patient/guardian:
   - O I spoke with the guardian or relative while patient was still under general anesthesia
   - O Same day as surgery, after the surgery was completed
   - O Postoperative day 1
   - O Postoperative day 2-7
   - O Greater than postoperative day 7
   - O Not discussed with patient/guardian

5. What correction, if any, was required?
   - O Surgical correction same day, same anesthesia
   - O Surgical correction same day, new anesthesia
   - O Surgical correction within 7 days
   - O Surgical correction between 8-90 days
   - O No surgical correction required

6. Did you perform a time out with your operating room staff prior to your case which resulted in a surgical error?
   - O YES
   - O NO

TEAR-OFF SECTION:

Please turn page over and fill-in bottom portion for a chance to win 1 out of 5 $100 VISA gift cards.
Survey: Errors in Strabismus Surgery
Your responses are ANONYMOUS and CONFIDENTIAL.

7. Who was your assistant during the case which resulted in a surgical error?
   - No assistant
   - Technician or nurse
   - Medical student
   - Ophthalmology resident
   - Ophthalmology fellow
   - Attending ophthalmologist without specialty training in strabismus
   - Attending ophthalmologist with specialty training in strabismus

Please describe your most recent case in greater detail, including what you believe contributed to the error.

____________________________________________________________________
____________________________________________________________________

8. How many operating rooms do you run simultaneously, for which you are the attending surgeon?
   - 1
   - 2
   - > 2

9. How many surgical cases do you perform on a typical operating day?
   - 1
   - 2 – 3
   - 4 – 5
   - 6 – 10
   - > 10

10. How many strabismus surgeries do you perform per year?
    - < 50
    - 51 – 100
    - 101 – 200
    - 201 – 300
    - > 300

11. How many strabismus surgeries have you performed in your career as attending surgeon? (Estimate, or write the average # of surgeries per year x # of years operating. We will calculate the total for you.)

12. What steps do you take to reduce the likelihood of error in strabismus surgery? (Check all that apply.)
    - Examine patient preoperatively on the same day as surgery to confirm deviation
    - Mark the eye muscles and surgery to be done on the patient’s face or on the drape
    - Discuss the surgical plan with an assistant surgeon
    - Post the preoperative exam where it is visible to me in the operating room
    - Post the surgical plan where it is visible during surgery.
    - Other (please describe):

Please tear off bottom portion and turn into red box as you leave the conference room to maintain anonymity.

PLEASE write your email address here if you would: (Circle none, one, or both options.)
(1) Like to enter the drawing for 1 out of 5 $100 VISA gift cards.
(2) Receive preliminary ANONYMOUS and CONFIDENTIAL survey results.
eTable. Detection/correction of error and presence of surgical assistants

<table>
<thead>
<tr>
<th>Factor*</th>
<th>No. (%) of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Detection of Error (n = 173)</strong></td>
<td></td>
</tr>
<tr>
<td>During procedure while patient was under general anesthesia</td>
<td>88 (50.8)</td>
</tr>
<tr>
<td>Same day as procedure but after the case had been completed</td>
<td>38 (21.9)</td>
</tr>
<tr>
<td>Postoperative day 1 or later</td>
<td>16 (9.2)</td>
</tr>
<tr>
<td>No response given</td>
<td>31 (17.9)</td>
</tr>
<tr>
<td><strong>Correction of Error (n = 173)</strong></td>
<td></td>
</tr>
<tr>
<td>During procedure while patient was under original anesthesia</td>
<td>72 (41.6)</td>
</tr>
<tr>
<td>Same day as procedure under new anesthesia</td>
<td>15 (8.7)</td>
</tr>
<tr>
<td>Postoperative day 1 or later</td>
<td>22 (12.7)</td>
</tr>
<tr>
<td>No surgical correction required</td>
<td>33 (19.1)</td>
</tr>
<tr>
<td>No response given</td>
<td>31 (17.9)</td>
</tr>
<tr>
<td><strong>Surgical Assistants (n = 173)</strong></td>
<td></td>
</tr>
<tr>
<td>Nurse or technician</td>
<td>72 (41.6)</td>
</tr>
<tr>
<td>Resident</td>
<td>34 (19.7)</td>
</tr>
<tr>
<td>Attending ophthalmologist with subspecialty training in strabismus</td>
<td>10 (5.8)</td>
</tr>
<tr>
<td>Fellow</td>
<td>9 (5.2)</td>
</tr>
<tr>
<td>No assistant</td>
<td>9 (5.2)</td>
</tr>
<tr>
<td>Medical student</td>
<td>2 (1.2)</td>
</tr>
<tr>
<td>Attending ophthalmologist without subspecialty training in strabismus</td>
<td>2 (1.2)</td>
</tr>
<tr>
<td>No response given</td>
<td>35 (20.2)</td>
</tr>
</tbody>
</table>

* Most cases (24 of 32 [75%]) in which the parent/guardian was not informed of the error required surgical correction, although correction was performed under the same general anesthesia in almost all such cases (22 of 24 [92%]).