

## **For Physicians Completing Case Report Forms**

### **ASA Postoperative Visual Loss Registry**

Sponsored by the Committee on Professional Liability, American Society of Anesthesiologists (ASA)

Contents:

- Instructions (3 pages)
- Case Report Registration and Acknowledgement (1 page)
- Primary Case Report Form (7 pages)
- Multiple Procedures Report (4 pages)

For questions, comments, requests for additional case report materials, or to submit cases, contact:

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University of Washington  
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Seattle, WA 98195-6540  
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Telephone: 206-616-2630  
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Please note that we cannot guarantee the confidentiality of any information sent via email.

## Instructions for the ASA Postoperative Visual Loss Registry

**Criteria for Case Reporting:** Cases must meet *all* of the following criteria to be eligible for this study:

1. Visual deficit within 7 days following *non-ophthalmic* surgery
2. Preoperative history and physical or preanesthesia assessment record available for review.
3. Anesthesia record available for review
4. PACU (or postop ICU, as applicable) record available for review
5. Postoperative ophthalmology clinic note or exam available for review

**Exclusion Criteria:** Visual deficit following ophthalmic surgery should *not* be reported. Ophthalmic surgery includes procedures on the optic nerve, retina, uvea, iris, choroid, ciliary body, cornea, conjunctiva, lens, sclera, or chamber of the eye.

**Case Report Submission:** Print legibly or type the requested identifying information for the person submitting the case report. *This information will be separated from the case report form.* It will be used only for creation of a mailing list for contacting participants if necessary. Case report forms should *not* contain names of patients, physicians, hospitals, or any other health care entities. Completed case report forms should be sent to the Registry Coordinating Office:

Karen Posner, Ph.D.  
Department of Anesthesiology and Pain Medicine  
University of Washington  
Box 356540  
Seattle, WA 98195-6540

Questions about submission of case reports or study procedures should be addressed to Dr. Posner at the above address. Dr. Posner can also be contacted by telephone (206-616-2630), FAX (206-543-2958) or electronic mail ([posner@u.washington.edu](mailto:posner@u.washington.edu)). Please note that we cannot guarantee the confidentiality of any information sent via e-mail.

**Confidentiality of Case Reports:** Each case report will have a unique *coded* study identifier for the purpose of detecting duplicate submission of case reports; this coded study ID will not enable the research team to identify the source of the case report or persons or institutions involved in the case. Do *NOT* include identifying information (names of patients, care providers, hospitals, etc.) on the case report.

**IRB (Human Subjects) Review:** The procedures for coordination of the ASA Postoperative Visual Loss Registry have been reviewed and approved by the University of Washington Human Subjects Review Committee. This approval includes collection of cases submitted without identification of patients or health care providers involved in the cases. The University of Washington IRB does not require individual sites that release health information to obtain IRB

review and approval because the release of health information does not engage those institutions in this research activity.

If you have any questions or need assistance, contact the Dr. Posner at the Registry Coordinating Office (see above for contact information).

**HIPPA:** The University of Washington IRB has issued a waiver of HIPAA authorization for the disclosure and use of protected health information for this research study. However, it is your responsibility to see if the Privacy Board at your institution will need to issue their own waiver of HIPAA authorization, or if they will require you to obtain authorization from the patient before abstracting information for submission to the ASA Postoperative Visual Loss Registry. If you have any questions or need assistance, contact Dr. Posner at the Registry Coordinating Office (see Page 1 for contact information).

**Coded Study ID:** Create an 8-digit case report identifier using the following algorithm (example below):

1	2	3	4	5	6	7	8
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<u>Digit</u>	<u>Information from Medical Record</u>
1	<u>F</u> irst letter of patient's last name
2-3	<u>M</u> onth of surgery (01-12)
4-5	<u>D</u> ay of birth (01-31)
6-7	<u>L</u> ast 2 letters of hospital city
8	<u>F</u> irst letter of primary care service

### Example of ID Creation

Medical Record Data		Algorithm	Output
Patient Name	<b>Campos</b>	<u>F</u> irst letter of patient's last name	<b>C</b>
Date of Surgery	<b>1/21/99</b>	<u>M</u> onth of surgery (01-12)	<b>01</b>
Date of Birth	<b>7/19/66</b>	<u>D</u> ay of birth (01-31)	<b>19</b>
Hospital City	<b>Seattle</b>	<u>L</u> ast 2 letters of hospital city	<b>LE</b>
Primary Care Service	<b>Oncology</b>	<u>F</u> irst letter of primary care service	<b>O</b>

Case Report ID							
<b>C</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>L</b>	<b>E</b>	<b>O</b>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>

Do *NOT* include any other identifying information (names of patients, care providers, hospitals, etc.) on the case report.

**Instructions for Cases with Multiple Surgical Procedures:** If a patient underwent multiple surgical procedures within 7 days prior to the appearance of visual deficit or without regaining consciousness between procedures (e.g., re-exploration), the primary case report form should be completed for the procedure most likely associated with the visual deficit. Use the [Multiple Procedures Report](#) to provide data for any additional procedures. Be sure to indicate the sequence of the procedure and the total number of procedures on each report.

The study ID from the primary case report form should be used on all multiple procedure reports associated with this patient.

## **Sources of Information for the ASA Postoperative Visual Loss Registry Case Report**

Use any medical records, notes, narrative summaries, consultant reports, risk management or other available documents to complete the case report. The following instructions indicate the portions of the medical record in which the information for each section of the case report will most likely be located. Other sources of information (in addition to those listed) may be used to supplement the medical record in order to complete the case report.

**Part 1 - Patient Information:** Most of this information should be available in the preoperative history and physical or preanesthesia assessment record. Use other records as needed to complete this section.

**Part 2 - Surgery and Anesthesia:** Use the anesthesia record to complete this section. The surgeon's operative report and intraoperative nursing record may contain relevant information and should be consulted for any data that is not available from the anesthesia record.

**Part 3 - Intra-Operative Clinical Course:** Most of this information should be contained in the anesthesia record. Use the surgeon and nurse records as needed.

**Part 4 - Recovery:** This information should be obtained from the PACU record. If edema was present on arrival to the PACU, check the intra-operative anesthesia record for time of onset.

**Part 5 - Complications:** Use ophthalmologist reports for this section, if available. For 5.2 and 5.3 refer to the PACU, ICU and floor nursing notes.

**Part 6 - Narrative Summary:** Please WRITE LEGIBLY or TYPE. Provide a succinct narrative of the events. Specify the sequence of events and details not included elsewhere on the form. Elaborate on symptoms, diagnoses, and theories regarding the cause of this patient's postoperative visual deficit.

**Multiple Procedures Report:** Be sure to insert the coded case report identifier used on the primary case report form on each multiple procedures report for this patient. Do *not* create a new coded ID.

If the patient underwent multiple surgical procedures within 7 days prior to the appearance of symptoms of postoperative visual deficit, or if the patient did not regain consciousness between procedures, complete the primary case report form for the procedure that was most likely to be causally related to the postoperative visual deficit. If causation cannot be determined, complete the primary case report form for the last surgical procedure prior to the development of symptoms of visual deficit. Use the Multiple Procedures Report to provide information for the other procedures that may be relevant to the development of any postoperative visual deficit. The Multiple Procedures Report consists of duplicate copies of sections 2-4 of the primary case report form (surgery and anesthesia, intra-operative clinical course, and recovery).

For each Multiple Procedures Report, indicate the total number of procedures being reported for this patient and the sequence of the procedure reported on each form (e.g., procedure 1 of 3 total procedures).

## ASA Postoperative Visual Loss Registry Case Report Registration and Acknowledgement

When your case is received by the ASA Postoperative Visual Loss Registry Coordinating Center, this sheet will be detached from the case so that it will *not be possible to identify the source of any individual case report*. This identifying information will be used to acknowledge receipt of the report and to create a mailing list of reporters for future communication.

Your Name: \_\_\_\_\_

If Professional status:  Anesthesiologist                       CRNA  
 Ophthalmologist                       Risk Manager  
 Surgeon (specialty) \_\_\_\_\_  
 Other (specify): \_\_\_\_\_

Your Hospital (optional): \_\_\_\_\_

Complete Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Some states require institutional review for retrospective use of medical records without patient consent. It is your responsibility to obtain any required Institutional Review Board (IRB) or Privacy Board approval if necessary in your location. Check the category that applies to your submission of case reports:

- IRB or Privacy Board approval for use of medical record data is *not* required at my location.
- IRB or Privacy Board approval for use of medical record data was obtained locally.

**Return this sheet with completed case report to:**

Karen Posner, Ph.D.  
Department of Anesthesiology  
University of Washington  
Box 356540  
Seattle, WA 98195-6540

## ASA Postoperative Visual Loss Primary Case Report Form

**Case Report ID:**

**IMPORTANT: See instructions for creating a coded study ID**

Form Completed By:  Anesthesiologist  Surgeon  Ophthalmologist  Risk Manager  Other \_\_\_\_\_

**PART 1**

**PATIENT INFORMATION**

1.1 Age (Years) \_\_\_\_\_

1.2 Sex  Male  
 Female

1.3 Height \_\_\_\_\_ inches

1.4 Weight \_\_\_\_\_ lbs. or \_\_\_\_\_ kgs.

1.5 Was patient obese?  No  
 Yes  
 Unknown

1.6 ASA Physical Status  ①  ②  ③  ④  ⑤  Unknown

Emergency  No  
 Yes

**Patient Medical History and Underlying Disease Status**

1.7 Diabetes  No  
 Yes ➔ Insulin Dependent?  No  
 Yes

1.8 Smoking  No  
 Yes ➔ Pack Years \_\_\_\_\_  
Last Smoked \_\_\_\_ / \_\_\_\_  
Month/ Year

1.9 Hypertension  No  
 Yes ➔ Treatment  None  
 Medical Treatment Specify \_\_\_\_\_  
  
Control of BP  Uncontrolled (*no treatment or no response to treatment*)  
 Moderate Control (*responded to treatment but target BP not attained*)  
 Good Control (*normal BP with treatment*)

1.10 Coronary Artery Disease  None  
 Mild  
 Severe ] ➔ Revascularized?  No  
 PTCA  
 CABG

1.11 Previous MI  No  
 Yes ➔ Date (most recent) \_\_\_\_\_

1.12 Cerebrovascular Disease  No  
 Yes ➔ Carotid Endarterectomy  No  Yes  
Previous CVA/Stroke  No  Yes  
TIA  No  Yes

1.13 Specify any other significant medical history: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1.14 Current medications (list): \_\_\_\_\_  
\_\_\_\_\_

1.15 Previous surgeries: \_\_\_\_\_  
\_\_\_\_\_

1.16 Preoperative Status:

Blood Pressure: \_\_\_\_\_

Hematocrit: \_\_\_\_\_

Cholesterol: \_\_\_\_\_ HDL \_\_\_\_\_ LDL

Vision

- Normal (no defects)
- Corrective lenses
- Cataracts

- Current
  - Removed

- Macular degeneration
- Glaucoma

Specify intraocular pressure \_\_\_\_\_

- History of other visual deficits or eye injury (specify): \_\_\_\_\_

**PART 2**

**SURGERY AND ANESTHESIA**

***DO NOT REPORT OPHTHALMIC SURGERY CASES***

If multiple surgical procedures will be reported for this patient, check here:  This is procedure # \_\_\_ of \_\_\_ total procedures  
For visual deficit following multiple surgical procedures, complete this [Primary Case Report Form](#) for the procedure most likely associated with the injury and a [Multiple Procedures Report](#) for each additional procedure.

2.1 Surgical Procedure: \_\_\_\_\_

If spinal fusion: # fusions \_\_\_\_\_  
# revisions \_\_\_\_\_  
# levels \_\_\_\_\_

If laminectomy: # levels \_\_\_\_\_

2.2 Date of Surgery: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

2.3 Anesthesia Start Time: \_\_\_\_\_

2.5 Anesthesia End Time: \_\_\_\_\_

2.4 Surgery Start Time (incision): \_\_\_\_\_

2.6 Surgery End Time (closure): \_\_\_\_\_

2.7 Intraoperative Airway Management:

- Endotracheal tube
- Nasotracheal tube
- Laryngeal mask
- Face mask
- Tracheotomy
- None

**2.8 Intraoperative Monitors:**

- BP cuff
- EKG
- Temperature
- Pulse Oximeter
- Nerve Stimulator
- Capnograph
- Bispectral Index (BIS)
- Inhalation Agent Analyzer
- Arterial Catheter
- Central Venous Pressure Catheter (CVP)
- Pulmonary Artery Catheter
- EEG
- Other (specify): \_\_\_\_\_

**2.9 Surgical Position:**

- Supine
- Lateral ➔ 
 Left side down or  Right side down
- Lithotomy
- Prone ⬇

Duration of prone position: \_\_\_\_\_ minutes

Type of body frame (include brand if known):  Soft support rolls under hips & shoulders  
 \_\_\_\_\_  Stryker  Wilson  Knee-chest position

Type of headrest (include brand if known):  Donut  Gel  Tongs  
 \_\_\_\_\_  Foam Pad  Horseshoe

Face position:  Straight down  Left side down  Right side down

Head repositioned during surgery?  No  Yes (Describe: \_\_\_\_\_)

Eyes taped?  No  Yes

Eyes checked regularly during case?  30 minutes  Every hour  
 None  Other \_\_\_\_\_

Specify additional padding or protective measures: \_\_\_\_\_

**2.10 For any surgical position, specify any tilt:**

- Head up (above the heart): ➔ Degree of tilt: \_\_\_\_\_
- Flat (head at same level as heart)
- Head down (head lower than heart) ➔ 
 Duration of head down: \_\_\_\_\_ minutes  
 Vertical distance between level of head and heart: \_\_\_\_\_ cm  
 Vertical distance between level of head and surgical site: \_\_\_\_\_ cm

**2.11 Primary Anesthetic Technique for Surgery:**

- General anesthesia only
- Combined general plus regional
- Regional only
- MAC with sedation

**2.12 Premedication: Specify all medications active or administered prior to induction of anesthesia. INCLUDE both surgical and anesthesia drugs (antibiotics, sedatives, fluids, etc).**

<u>Drug Name</u>	<u>Dose</u>	<u>Time of Administration</u>	<u>Rate &amp; Duration if Infusion</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Anesthesia Agents**

**2.13 General Anesthesia Induction Agents, Dose, Route of Administration:**

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**2.14 Regional Anesthesia Technique**

- Block type:     None (*skip to section 2.16*)  
                   Thoracic epidural  
                   Lumbar epidural  
                   Spinal  
                   Other (specify): \_\_\_\_\_

**2.15 Regional Anesthesia Agents, Doses:**

Agent: \_\_\_\_\_  
Test dose: \_\_\_\_\_  
Definitive dose: \_\_\_\_\_  
or Infusion rate: \_\_\_\_\_

**2.16 List ALL drugs and fluids administered during maintenance of anesthesia (including inhalation agents). Include drugs administered by surgeons (including local infiltration and immunosuppressants) and technicians (bypass):**

<u>Drug or Fluid Name</u>	<u>Dose</u>	<u>Time of Administration</u>	<u>Rate &amp; Duration if Infusion</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total volume of IV fluids (crystalloids, colloids): \_\_\_\_\_ cc

**2.17 Was cyclosporine given?**     No  
                                                   Yes    ➔    Dose \_\_\_\_\_ Time of administration \_\_\_\_\_

**2.18 Surgical field irrigation**     None     Saline     Glycine     Other \_\_\_\_\_

**3.1 Was controlled hypotension used?**

No (Skip to section 3.2)

Yes ➔

Technique:	<input type="radio"/> Deep inhalation anesthesia
	<input type="radio"/> Hypotensive drug (specify): _____
	<input type="radio"/> Infusion rate _____
	<input type="radio"/> Intermittent doses _____
Target blood pressure:	
mean	_____
systolic	_____

**3.2 Intraoperative blood pressure**

Preoperative blood pressure (baseline) \_\_\_\_\_ mean \_\_\_\_\_

Lowest intraoperative systolic blood pressure \_\_\_\_\_

Lowest intraoperative mean blood pressure \_\_\_\_\_

Duration of lowest blood pressure \_\_\_\_\_ minutes

Did mean or systolic blood pressure drop:

20% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

40% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

50% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

> 50% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

**3.3 Was cardiopulmonary bypass used?**

No

Yes ➔

Duration of bypass	_____ minutes
Cross-clamp time	_____ minutes
Pre-bypass rhythm	_____
Post-bypass rhythm	_____

**3.4 Blood and Fluid Loss**

Estimated blood loss \_\_\_\_\_

Lowest recorded Hct/Hgb (intraoperative) \_\_\_\_\_ time \_\_\_\_\_

Lowest recorded Hct/Hgb within last hour before wound closure \_\_\_\_\_ time: \_\_\_\_\_

Did Hgb drop below 8.0g/dl?  No  Yes ➔ Duration \_\_\_\_\_ minutes

Blood products administered intraoperatively:

Whole blood \_\_\_\_\_ cc

Packed cells \_\_\_\_\_ cc

Other blood products (specify type and volume) \_\_\_\_\_ cc

Total intraoperative urine output: \_\_\_\_\_ cc

**3.5 Intraoperative Body Temperature**

Did temperature drop below 35°C ?

No

Yes ➔

Lowest intraoperative temperature	_____ °C
Duration of temperature below 35°C	_____ minutes

**3.6 Adverse Intraoperative Events**

Cardiac arrest  No  Yes ➔ duration \_\_\_\_\_ minutes

Cardiogenic shock  No  Yes ➔ duration \_\_\_\_\_ minutes

Seizures(s)  No  Yes ➔ # \_\_\_\_\_ duration \_\_\_\_\_

Direct trauma to eye  No  Yes ➔ describe \_\_\_\_\_

Hemorrhage into orbit  No  Yes

Other relevant events: \_\_\_\_\_

**PART 4**

**RECOVERY**

**4.1 Facial Edema**

Indicate severity for each side of face

	Left Side				Right Side			
	None	Mild	Moderate	Severe	None	Mild	Moderate	Severe
Generalized (puffy face; persistent indentation of skin following pressure)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelids edematous or periorbital edema	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital cyanosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital inflammation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital bruising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheeks edematous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Patient able to open his/her eyes?

	Left	Right
Not At All	<input type="radio"/>	<input type="radio"/>
Partially	<input type="radio"/>	<input type="radio"/>
Fully	<input type="radio"/>	<input type="radio"/>

Time facial edema first noticed: \_\_\_\_\_  
 Time facial edema began to resolve: \_\_\_\_\_  
 Time facial edema completely resolved: \_\_\_\_\_

**4.2 Airway Edema**

- None (Skip to section 4.3)
- Mild
- Moderate
- Severe

	Yes	No
Absence of air leak around endotracheal tube?	<input type="radio"/>	<input type="radio"/>
Endotracheal tube left in place?	<input type="radio"/>	<input type="radio"/>
Airway obstruction after extubation?	<input type="radio"/>	<input type="radio"/>
Reintubation after extubation?	<input type="radio"/>	<input type="radio"/>

Methods used to assess severity of airway edema: \_\_\_\_\_

**4.3 When did blood pressure return to preoperative baseline?** date \_\_\_\_\_ time \_\_\_\_\_

**4.4 When did Hgb return to preoperative baseline?** date \_\_\_\_\_ time \_\_\_\_\_

**4.5 When did patient reach recovery criteria (Aldrete  $\geq$  8)?** \_\_\_\_\_

**PART 5**

**COMPLICATIONS**

**5.1 Symptoms**

- Decreased visual acuity  R  L  Both
- Decreased field of vision  R  L  Both
- Loss of vision  R  L  Both
- Other \_\_\_\_\_  R  L  Both

**5.2 Location of patient when symptoms were first noted**

- PACU
- ICU
- Ward/Floor

**5.3 When were symptoms first noted?**

date \_\_\_\_\_ time \_\_\_\_\_

**5.4 Findings on fundus exam:** \_\_\_\_\_

**5.5 Lesion:** \_\_\_\_\_

**5.6 Treatment:** \_\_\_\_\_

**5.7 Final visual evaluation:** date \_\_\_\_\_

Fundus \_\_\_\_\_

Field of vision \_\_\_\_\_

Acuity \_\_\_\_\_

**5.8 Prognosis:**  Full recovery  Partial improvement  No improvement anticipated

**5.9 Final diagnosis (type of lesion and cause):** \_\_\_\_\_

\_\_\_\_\_



## ASA Postoperative Visual Loss Multiple Procedures Report

**Insert Coded ID from the Primary Case Report Here: \_\_\_\_\_**

If the patient underwent multiple surgical procedures within 7 days prior to the appearance of a visual deficit, or if the patient did not regain consciousness between procedures, complete the Primary Case Report Form for the procedure most likely causing the injury and complete a copy of this supplemental report for each additional surgical procedure.

Procedure # \_\_\_\_\_ of \_\_\_\_\_ total procedures within 7 days of visual deficit.

ASA Physician Status for this procedure: ① ② ③ ④ ⑤  Unknown      Emergency?  No  Yes

### MULTIPLE PROCEDURE PART 2: SURGERY AND ANESTHESIA

2.1 Surgical Procedure: \_\_\_\_\_

If spinal fusion: # fusions \_\_\_\_\_      If laminectomy: # levels \_\_\_\_\_  
 # revisions \_\_\_\_\_  
 # levels \_\_\_\_\_

2.2 Date of Surgery: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

2.3 Anesthesia Start Time: \_\_\_\_\_

2.5 Anesthesia End Time: \_\_\_\_\_

2.4 Surgery Start Time (incision): \_\_\_\_\_

2.6 Surgery End Time (closure): \_\_\_\_\_

2.7 Intraoperative Airway Management:       Endotracheal tube       Face mask  
 Nasotracheal tube       Laryngeal mask  
 Tracheotomy       None

2.8 Intraoperative Monitors:

BP cuff       Inhalation Agent Analyzer  
 EKG       Arterial Catheter  
 Temperature       Central Venous Pressure Catheter (CVP)  
 Pulse Oximeter       Pulmonary Artery Catheter  
 Nerve Stimulator       EEG  
 Capnograph       Other (specify): \_\_\_\_\_  
 Bispectral Index (BIS)

2.9 Surgical Position:  Supine

Lateral      ➔  Left side down or  Right side down

Lithotomy

Prone      ↓

Duration of prone position: \_\_\_\_\_ minutes  
 Type of body frame (include brand if known):  Soft support rolls under hips & shoulders  
 \_\_\_\_\_  Stryker  Wilson  Knee-chest position  
 Type of headrest (include brand if known):  Donut  Gel  Tongs  
 \_\_\_\_\_  Foam Pad  Horseshoe  
 Face position:  Straight down  Left side down  Right side down  
 Head repositioned during surgery?  No  Yes (Describe: \_\_\_\_\_)  
 Eyes taped?  No  Yes  
 Eyes checked regularly during case?  30 minutes  Every hour  
 None  Other \_\_\_\_\_  
 Specify additional padding or protective measures: \_\_\_\_\_

**2.10 For any surgical position, specify any tilt:**

- Head up (above the heart)      ➡ Degree of tilt: \_\_\_\_\_
- Flat (head at same level as heart)
- Head down (head lower than heart)      ➡

Duration of head down: \_\_\_\_\_ minutes  
Vertical distance between level of head and heart: \_\_\_\_\_ cm  
Vertical distance between level of head and surgical site: \_\_\_\_\_ cm

**2.11 Primary Anesthetic Technique for Surgery:**

- General anesthesia only
- Combined general plus regional
- Regional only
- MAC with sedation

**2.12 Premedication: Specify all medications active or administered prior to induction of anesthesia. INCLUDE both surgical and anesthesia drugs (antibiotics, sedatives, fluids, etc).**

<u>Drug Name</u>	<u>Dose</u>	<u>Time of Administration</u>	<u>Rate &amp; Duration if Infusion</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**Anesthesia Agents**

**2.13 General Anesthesia Induction Agents, Dose, Route of Administration:**

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**2.14 Regional Anesthesia Technique**

- Block type:
- None (*skip to section 2.16*)
  - Thoracic epidural
  - Lumbar epidural
  - Spinal
  - Other (specify): \_\_\_\_\_

**2.15 Regional Anesthesia Agents, Doses:**

Agent: \_\_\_\_\_  
Test dose: \_\_\_\_\_  
Definitive dose: \_\_\_\_\_  
or Infusion rate: \_\_\_\_\_

2.16 List ALL drugs and fluids administered during maintenance of anesthesia (including inhalation agents). Include drugs administered by surgeons (including local infiltration and immunosuppressants) and technicians (bypass):

<u>Drug or Fluid Name</u>	<u>Dose</u>	<u>Time of Administration</u>	<u>Rate &amp; Duration if Infusion</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total volume of IV fluids (crystalloids, colloids): \_\_\_\_\_ cc

2.17 Was cyclosporine given?  No  
 Yes ➔ Dose \_\_\_\_\_ Time of administration \_\_\_\_\_

2.18 Surgical field irrigation  None  Saline  Glycine  Other \_\_\_\_\_

**MULTIPLE PROCEDURE PART 3: INTRA-OPERATIVE CLINICAL COURSE**

3.1 Was controlled hypotension used?

No (Skip to section 3.2)

Yes ➔

Technique:	<input type="radio"/> Deep inhalation anesthesia
	<input type="radio"/> Hypotensive drug (specify): _____
	<input type="radio"/> Infusion rate _____
	<input type="radio"/> Intermittent doses _____
Target blood pressure:	
mean	_____
systolic	_____

3.2 Intraoperative blood pressure

Preoperative blood pressure (baseline) \_\_\_\_\_ mean \_\_\_\_\_

Lowest intraoperative systolic blood pressure \_\_\_\_\_

Lowest intraoperative mean blood pressure \_\_\_\_\_

Duration of lowest blood pressure \_\_\_\_\_ minutes

Did mean or systolic blood pressure drop:

20% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

40% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

50% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

> 50% below baseline?  No  Yes ➔ \_\_\_\_\_ total duration (minutes)

3.3 Was cardiopulmonary bypass used?

No

Yes ➔

Duration of bypass	_____ minutes
Cross-clamp time	_____ minutes
Pre-bypass rhythm	_____
Post-bypass rhythm	_____

**3.4 Blood and Fluid Loss**

Estimated blood loss \_\_\_\_\_  
 Lowest recorded Hct/Hgb (intraoperative) \_\_\_\_\_ time \_\_\_\_\_  
 Lowest recorded Hct/Hgb within last hour before wound closure \_\_\_\_\_ time: \_\_\_\_\_  
 Did Hgb drop below 8.0g/dl?  No  Yes ➔ Duration \_\_\_\_\_ minutes  
 Blood products administered intraoperatively:  
 Whole blood \_\_\_\_\_ cc  
 Packed cells \_\_\_\_\_ cc  
 Other blood products (specify type and volume) \_\_\_\_\_ cc  
 Total intraoperative urine output: \_\_\_\_\_ cc

**3.5 Intraoperative Body Temperature**

Did temperature drop below 35°C ?  
 No  
 Yes ➔ 

Lowest intraoperative temperature _____ °C
Duration of temperature below 35°C _____ minutes

**3.6 Adverse Intraoperative Events**

Cardiac arrest  No  Yes ➔ duration \_\_\_\_\_ minutes  
 Cardiogenic shock  No  Yes ➔ duration \_\_\_\_\_ minutes  
 Seizures(s)  No  Yes ➔ # \_\_\_\_\_ duration \_\_\_\_\_  
 Direct trauma to eye  No  Yes ➔ describe \_\_\_\_\_  
 Hemorrhage into orbit  No  Yes  
 Other relevant events: \_\_\_\_\_

**MULTIPLE PROCEDURE PART 4: RECOVERY**

**4.1 Facial Edema**

*Indicate severity for each side of face*

	Left Side				Right Side			
	None	Mild	Moderate	Severe	None	Mild	Moderate	Severe
Generalized (puffy face; persistent indentation of skin following pressure)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelids edematous or periorbital edema	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital cyanosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital inflammation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eyelid or periorbital bruising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cheeks edematous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Patient able to open his/her eyes?

	Left	Right	Time facial edema first noticed: _____
Not At All	<input type="radio"/>	<input type="radio"/>	Time facial edema began to resolve: _____
Partially	<input type="radio"/>	<input type="radio"/>	Time facial edema completely resolved _____
Fully	<input type="radio"/>	<input type="radio"/>	

**4.2 Airway Edema**

None *(Skip to section 4.3)*

<input type="radio"/> Mild <input type="radio"/> Moderate <input type="radio"/> Severe	}	➔	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"></td> <td style="width: 20%; text-align: center;">Yes</td> <td style="width: 20%; text-align: center;">No</td> </tr> <tr> <td>Absence of air leak around endotracheal tube?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>Endotracheal tube left in place?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>Airway obstruction after extubation?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> <tr> <td>Reintubation after extubation?</td> <td style="text-align: center;"><input type="radio"/></td> <td style="text-align: center;"><input type="radio"/></td> </tr> </table>		Yes	No	Absence of air leak around endotracheal tube?	<input type="radio"/>	<input type="radio"/>	Endotracheal tube left in place?	<input type="radio"/>	<input type="radio"/>	Airway obstruction after extubation?	<input type="radio"/>	<input type="radio"/>	Reintubation after extubation?	<input type="radio"/>	<input type="radio"/>
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Airway obstruction after extubation?	<input type="radio"/>	<input type="radio"/>																
Reintubation after extubation?	<input type="radio"/>	<input type="radio"/>																

Methods used to assess severity of airway edema: \_\_\_\_\_

**4.3 When did blood pressure return to preoperative baseline?** date \_\_\_\_\_ time \_\_\_\_\_

**4.4 When did Hgb return to preoperative baseline?** date \_\_\_\_\_ time \_\_\_\_\_

**4.5 When did patient reach recovery criteria (Aldrete ≥ 8)?** \_\_\_\_\_