Clinical Information (form E)

Please complete the survey below.

Thank you!

INSTRUCTIONS:

1. This form is to be filled out by an anesthesiologist or other health care provider however, if you as the patient have the following information please complete the form to the best of your ability.

2. Complete this form each time you suspect a patient may have experienced an adverse metabolic reaction to anesthesia or exercise, possibly related to malignant hyperthermia (MH). Examples: hypercarbia, acidosis, tachycardia, rigidity, hyperkalemia, myoglobinuria, arrhythmias, unexplained fever.

3. Please fill out as soon as patient is stable, preferably within 48 hours of the event.

4. The attending anesthesiologist or other physician should review the completed CLINICAL INFORMATION survey.

5. If you do not know the patient's name or do not have the consent from the patient, you don't have to fill out the PARTICIPANT INFORMATION surveys. You are allowed to complete merely CLINICAL INFORMATION surveys.

6. If a patient wishes to be registered by name, they may contact the Registry directly by referring his/her case ID of AMRA event.

7. For FULMINANT MH cases refer the patient for a blood test that assesses genetic risk of MH. This may also help diagnose MH susceptibility in other family members.

8. In the case of fatal, fulminant MH, muscle should examined by the autopsy pathologist for genetic defects related to MH and the patient's next of kin should consider calling the MH Registry.

9. Please download the completed form at end of survey for your records.

HEALTHCARE PROVIDER CONTACT INFORMATION
(to be completed by the anesthesiologist/physician/CRNA)

You have completed ... (of Form E - Clinical Information) 10%

E1.1 - Healthcare provider’s first name

E1.2 - Healthcare provider’s last name

E1.3 - Healthcare provider’s middle name
E1.4 - if you are reporting provider, what type of facility?
- Hospital
- Ambulatory Surgical Facility located on hospital campus
- Free-standing ambulatory surgical facility
- Dental Office
- Surgical Office
- Other (specify)

E1.4.1 - If other, please specify

E1.5 - Hospital/facility name:

E1.6 - Is it a VA hospital?
- Yes
- No

E1.7 - Street of provider's location

E1.8 - City of provider's location
E1.9 - State/Province/International country of provider's location

- Alabama
- Alaska
- American Samoa
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Guam
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Marshall Islands
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Palau
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon Territory
<table>
<thead>
<tr>
<th>Field</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>If other, which international country:</td>
<td></td>
</tr>
<tr>
<td>E1.10 - Zip/Postal Code of provider's location</td>
<td></td>
</tr>
<tr>
<td>E1.11 - Country of provider's location</td>
<td>USA, Canada, Mexico, Other (specify)</td>
</tr>
<tr>
<td>E1.11.1 - If other, please specify:</td>
<td></td>
</tr>
<tr>
<td>E1.12 - Office phone number</td>
<td></td>
</tr>
<tr>
<td>E1.13 - Email address</td>
<td></td>
</tr>
</tbody>
</table>
### CLINICAL OVERVIEW

#### You have completed ... (of Form E - Clinical Information)

<table>
<thead>
<tr>
<th>Percentage: 30%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>E2.1 - General anesthetic induction method</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ inhalation</td>
</tr>
<tr>
<td>☐ intravenous</td>
</tr>
<tr>
<td>☐ not applicable</td>
</tr>
<tr>
<td>☐ other (specify)</td>
</tr>
</tbody>
</table>

**E2.1.1 - If other, please specify:**

__________________________________

<table>
<thead>
<tr>
<th>E2.2.yr - Anesthesia induction year</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________________________________</td>
</tr>
<tr>
<td>(for example, 2017)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.2.m - Anesthesia induction month</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________________________________</td>
</tr>
<tr>
<td>(for example, 12)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.2.day - Anesthesia induction day</th>
</tr>
</thead>
<tbody>
<tr>
<td>___________________________________</td>
</tr>
<tr>
<td>(for example, 25)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.2.2 - Anesthesia induction time</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________________________</td>
</tr>
<tr>
<td>(for example, 18:30)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.3.yr - Anesthesia stop year</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(for example, 2017)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.3.m - Anesthesia stop month</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(for example, 12)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.3.d - Anesthesia stop day</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(for example, 25)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.3.2 - Anesthesia stop time</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(for example, 18:30)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.4.1 - Duration of anesthetic medication administration (total hours):</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(hrs (e.g. 3 hrs))</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E2.4.2 - Duration of anesthetic medication administration (additional mins):</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
</tr>
<tr>
<td>(mins)</td>
</tr>
</tbody>
</table>
E2.5.1 - Total anesthesia duration (total hours):
(type in hours only (e.g. 2))

E2.5.2 - Total anesthesia duration (additional mins):
(type in additional minutes only (e.g. 20))

E2.6 - Type(s) of procedure scheduled?
(check all applicable)

- cardiothoracic with bypass
- cardiothoracic without bypass
- dental
- ear, nose, or throat
- eye
- general surgery
- gynecology
- laparoscopic surgery (specify)
- neurosurgery
- obstetrics
- oral surgery
- orthopedic
- plastic surgery
- radiology
- robot-assisted surgery
- thoracic surgery
- thoracoscopic surgery
- transplant (specify type)
- trauma
- urology
- vascular
- other (specify)
- unknown

E2.6.1 - If laparoscopic surgery, please specify:
(e.g. abdominal or pelvic, etc.)

E2.6.2 - If transplant, please specify type:

E2.6.3 - If other, please specify:

E2.7 - Was the procedure an emergency?

- Yes
- No
## ADVERSE METABOLIC REACTION TO ANESTHESIA (AMRA)

You have completed ... (of Form E - Clinical Information)

50%

<table>
<thead>
<tr>
<th>E3.1 - Did the Participant experience an Adverse Metabolic Reaction to Anesthesia?</th>
<th>☐ Yes ☐ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3.2.1 - the year that the patient experienced Adverse Metabolic or Muscular Reaction</td>
<td>(enter year only (e.g. 2017))</td>
</tr>
<tr>
<td>E3.2.2 - the month that the patient experienced Adverse Metabolic or Muscular Reaction</td>
<td>(enter month only (e.g. 12))</td>
</tr>
<tr>
<td>E3.2.3 - the day that the patient experienced Adverse Metabolic or Muscular Reaction</td>
<td>(enter day only (e.g. 25))</td>
</tr>
</tbody>
</table>
E3.5 - State, Province, or country of patient's residence at time of incident

- Alabama
- Alaska
- American Samoa
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Guam
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Marshall Islands
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Palau
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon Territory
If other, which international country: __________________________________________

E3.6 - Hospital at time of incident: __________________________________________

E3.7 - Type of anesthetic prior to AMRA
(check all applicable)

☐ monitored anesthesia care
☐ regional anesthesia
☐ spinal anesthesia
☐ epidural anesthesia
☐ general anesthesia without endotracheal intubation
☐ general anesthesia with endotracheal intubation
☐ general anesthesia with a face mask
☐ general anesthesia with a laryngeal mask airway
☐ tourniquet use

E3.7.1 - If tourniquet used, what's the date and time inflated?

(Do not enter value)

E3.7.1yr - If tourniquet used, what's the year inflated?

(ex警方 - 2017)

E3.7.1mth - If tourniquet used, what's the month inflated?

(ex警方 - December = 12)

E3.7.1day - If tourniquet used, what's the day inflated?

(ex警方 - 25)

E3.7.1tm - If tourniquet used, what's the time inflated?

(2pm = 14:00)

E3.7.2 - If tourniquet used, what's the date and time finally released?

(Do not enter value)

E3.7.2yr - If tourniquet used, what's the year finally released?

(ex警方 - 2017)

E3.7.2mth - If tourniquet used, what's the month finally released?

(ex警方 - December = 12)

E3.7.2day - If tourniquet used, what's the day finally released?

(ex警方 - 25)
E3.7.2tm - If tourniquet used, what's the time finally released? (2pm = 14:00)

E3.8 - Did this adverse reaction occur without exposure to anesthetic?
○ Yes
○ No

E3.8.1 - If yes, please add details:

E3.9 - Was the environment hot when this reaction occurred?
○ Yes
○ No

E3.9.1 - If yes, how hot? (C)

E3.10 - Was any infection present at the time of this reaction?
○ Yes
○ No
○ Unknown

E3.10.1 - If infection was present, what organisms were known to be present? (specify)

E3.11 - Where was the reaction noted to occur?
○ pre-operative holding area
○ in the operating room
○ in the intensive care unit
○ in a remote location (e.g. GI suite, radiology)
○ in the post-anesthesia care unit
○ other (specify)
(choose one)

E3.11.1 - If other, please specify:

E3.12 - After adverse metabolic or muscular reaction was noted, the procedure was:
○ deferred
○ terminated before all scheduled procedures completed
○ completed in spite of reaction
○ not applicable - patient was in transport at time reaction occurred
○ not applicable - patient in recovery or intensive care area at time of reaction
○ not applicable - surgery completed but patient still under anesthesia in OR
CLINICAL IMPRESSION

You have completed ... (of Form E - Clinical Information)

70%

E4.1 - Patient experienced 
(opinion of attending anesthesiologist): 
(check one)

○ adverse metabolic reaction that was not related to MH
○ possible MH - may include masseter spasm (MH diagnostic center referral recommended)
○ fulminant MH - (family counseling, MH diagnostic center referral recommended)
○ other (specify)

E4.1.1 - If other, please specify

__________________________________

E4.2 - Was the patient and his/her family referred to one of the following MH diagnostic centers?

○ Yes
○ No
○ Unknown

E4.2.1 - MH DIAGNOSTIC CENTER DIRECTORY

University of Minnesota
Paul A. Iaizzo, PhD, FHRS
420 Delaware St. SE
B172 Mayo, MMC 195
Minneapolis, MN 55455
Tel: 612-624-7912 (Dr. Iaizzo)
Email: iaizz001@umn.edu

UC Davis MH Biopsy Testing Center
Timothy Tautz, MD, Director
UCDMC Department of Anesthesiology
4150 V St.
PSSB Suite 1200
Sacramento, CA 95817
Tel: 916-734-2432
Email: tjtautz@ucdavis.edu

Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, MD 20814
LCDR Michael Lee, MC USN
CAPT Dale F. Szpisjak MC, USN (back up)
Tel: 301-295-3140
Email: MHLab@usuhs.edu

Toronto General Hospital
Sheila Riazi, MSc, MD, FRCPC
Department of Anesthesia/Pain Mgmt
University Health Network
2 Elizabeth Street, Room E3-323
Toronto, ON M5G 2C4
Canada
Tel: 416-340-3128
Email: Sheila.riazi@uhn.ca

Wake Forest Baptist Medical Center
Joseph Tobin, MD
E4.3 - If referred to a MH diagnostic center, please select which one:

- Wake Forest Baptist Medical Center (Winston-Salem, NC)
- Uniformed Services University of the Health Sciences (Bethesda, MD)
- UC Davis MH Biopsy Testing Center (Davis, CA)
- University of Minnesota (Minneapolis, MN)
- Toronto General Hospital (Toronto, ON)
- Other, please specify below

E4.3.1 - Other MH Diagnostic Center:

__________________________________

E4.4 - Were the patient and the family also referred to MHAUS?

- Yes
- No

PO Box 1069
Sherburne, NY 13460-1069
(1-800-986-4287)

E4.5 - COMMENTS ON PATIENT (Optional):

__________________________________________

Congratulations. You have completed ... (of Form E - Clinical Information) 100%