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.

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)

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 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
E1.10 - Zip/Postal Code of provider's location

E1.11 - Country of provider's location

- USA
- Canada
- Mexico
- Other (specify)

E1.11.1 - If other, please specify:

E1.12 - Office phone number

E1.13 - Email address
### CLINICAL OVERVIEW

E2.1 - General anesthetic induction method  
- inhalation  
- intravenous  
- not applicable  
- other (specify)

E2.1.1 - If other, please specify:  
__________________________________

E2.2.1 - Anesthesia induction date  
(for example, 2017-12-25)

E2.2.2 - Anesthesia induction time  
(for example, 18:30)

E2.3.1 - Anesthesia stop date  
(for example, 2017-12-25)

E2.3.2 - Anesthesia stop time  
(for example, 18:30)

E2.4.1 - Duration of anesthetic medication administration (total hours):  
(hrs (e.g. 3 hrs))

E2.4.2 - Duration of anesthetic medication administration (additional mins):

E2.5.1 - Total anesthesia duration (total hours):  
(hrs (e.g. 3 hrs))

E2.5.2 - Total anesthesia duration (additional mins):

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  
- thoracoscopy 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

E2.8 - Was the procedure performed outside a hospital?
 ○ Yes
 ○ No

E2.8.1 - If yes, which of the following:
 ○ ambulatory surgery center
 ○ office
ADVERSE METABOLIC REACTION TO ANESTHESIA (AMRA)

E3.1 - Did the Participant experience an Adverse Metabolic Reaction to Anesthesia?

☐ Yes
☐ No

E3.2.1 - the year that the patient experienced Adverse Metabolic or Muscular Reaction

(enter year only (e.g. 2017))

E3.2.2 - the month that the patient experienced Adverse Metabolic or Muscular Reaction

(enter month only (e.g. 12))

E3.2.3 - the day that the patient experienced Adverse Metabolic or Muscular Reaction

(enter day only (e.g. 25))

E3.3 - Patient weight at time of incident

__________________________________ (kgs)

E3.4 - Patient height at time of incident

__________________________________ (cms)
E3.5 - State or Province 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
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? (for example, 2017-12-25 18:30)

E3.7.2 - If tourniquet used, what's the date and time finally released? (for example, 2017-12-25 18:30)

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

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)

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
CLINICAL IMPRESSION

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)

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

- Yes
- No

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
Department of Anesthesiology
Medical Center Boulevard
Winston-Salem, NC 27157
Tel: 336-716-4497
Contact: Sherry Meacham
Email: smeacham@wakehealth.edu
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)

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):

__________________________________________