

# Demographicsmuskmg

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## Demographics Information

Study Subject ID

\_\_\_\_\_  
(Example: PYA1, or RUP2. The first letter will be either P (Prospective) or R (Retrospective). The next two letters are center codes that have been assigned to you, for example YA for Yale. The No. is the subject No. at your site. Please make a note of this No. in relationship to you patient's ID No., so you can identify the patient. Also, if your patient has multiple TPE series, please make sure that you use the same Study subject ID No.)

Center ID

- Cleveland Clinic (CC)
- CHOP (CH)
- CNMC (CN)
- Columbia (CO)
- Mayo (MA)
- New York Blood Center (NY)
- U Minn (UM)
- U Penn (UP)
- U Michigan (MI)
- Virginia Commonwealth University (VC)
- Yale (YA)

Gender

- Female
- Male
- Undifferentiated
- Unknown

Ethnicity

- Hispanic or Latino
- Not Hispanic or Latino

Race

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Unknown or mixed

(Study participants should self-report race, with race being asked about after ethnicity. Check all that apply.)

What is the subject's age at the first Study TPE

\_\_\_\_\_  
(Record age of the subject in years. Ex: 39 or 45.)

Age (years) at initial MUSK-MG diagnosis

\_\_\_\_\_  
(Record age of the subject in years. Ex: 39 or 45.)

Year of the first study TPE performed/Started

- 2017  
 2016  
 2015  
 2014  
 2013  
 2012  
 2011  
 2010  
 2009  
 2008  
 2007  
 2006  
 2005  
 2004  
 2003  
 2002  
 2001  
 2000

(Year of the first TPE procedure performed for this TPE session)

Prior non-registered TPE

- Yes  
 No

(If there are prior TPE sessions that you are aware, but you do not intend to report to the registry or the TPE were performed prior to 2000, please check yes for this field, and give a brief summary of the prior TPEs such as roughly when, what for, the estimated No., outcome, and source of the information such as per chart, per patient, per family, etc..)

Notes for prior non-registered TPE

\_\_\_\_\_  
 (If there are prior TPE session that you are aware, but you do not intend to report to the registry or the TPE were performed prior to 2000, please give a brief summary of the prior TPEs such as roughly when, what for, the estimated No., outcome, and source of the information such as per chart, per patient, per family, etc..)

Study Enrollment Date

\_\_\_\_\_  
 (Please enter the date that you start to work on this case, so you can obtain a summary for IRB reporting)

What is the date of complete reporting?

\_\_\_\_\_  
 ((Please enter the date of your completion of this case.))

Study notes

\_\_\_\_\_  
 ((Please use this field to leave notes for your own use or notes for the registry committee)

# Tpe Session Info Musk Mg

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## TPE Session Information Please provide summary for this TPE session

What TPE series is this?

- 1  
 2  
 3  
 4  
 5  
 6  
 7  
 8  
 9  
 10  
 >10, please enter No. below  
 (This refers to a series of TPE treatments)

Total Series No. if >10, otherwise leave it blank

\_\_\_\_\_

Date of first TPE in this TPE series/session

\_\_\_\_\_

(Date for the first TPE for this TPE series or session)

Date of last TPE in this TPE series/session

\_\_\_\_\_

Weight (Kg)

\_\_\_\_\_

Height (cm)

\_\_\_\_\_

Diagnostic Criteria

- Positive Acetylcholine Receptor Antibody  
 Positive Anti-MuSK Antibody  
 Positive Edrophonium tests  
 Positive Electromyography  
 Positive Single Fiber EMG

Clinical symptoms/information at Onset (before the start of first TPE of this series)

- None  
 Diplopia  
 Ptosis  
 Dysarthria  
 Dysphagia  
 Limb weakness  
 Shortness of breath  
 intubation

Treatment summary

- Steroid resistant add on  
 Steroid + TPE combination treatment de novo  
 Maintenance  
 Others

Treatment summary notes

\_\_\_\_\_

Clinical status assessment (from pre-TPE baseline to within 10 days post last TPE)

- 1-No improvement  
 2-Mild improvement (slight but definite change and with no impact on the daily function)  
 3-Moderate improvement (obvious improvement that impacts daily function)  
 4-Marked improvement (significant difference from Pre-first TPE baseline with major functional daily improvement)  
 5-full recovery from Pre-first TPE baseline

Did patient relapse after this TPE series/session?

- Yes
- No

If patient relapsed after this TPE series/session, age (yrs) at relapsed:

\_\_\_\_\_

If patient relapsed after this TPE series/session, months lapsed since last TPE:

\_\_\_\_\_

Meds/treatment tried prior to start of TPE

- None
- Mestinon (Pyridostigmine)
- Prednisone;
- Methylprednisolone
- Hydrocortisone
- IVIG
- Rituximab
- Imuran
- Cyclosporine
- Azathioprine
- Mycophenolate mofetil
- Thymectomy

Meds/treatment while on TPE

- None
- Mestinon (Pyridostigmine)
- Prednisone;
- Methylprednisolone
- Hydrocortisone
- IVIG
- Rituximab
- Imuran
- Cyclosporine
- Azathioprine
- Mycophenolate mofetil
- Thymectomy

Meds/treatment on within 10 days post TPE

- None
- Mestinon (Pyridostigmine)
- Prednisone;
- Methylprednisolone
- Hydrocortisone
- IVIG
- Rituximab
- Imuran
- Cyclosporine
- Azathioprine
- Mycophenolate mofetil
- Thymectomy

Meds/treatment on within 30 days post TPE

- None
- Mestinon (Pyridostigmine)
- Prednisone;
- Methylprednisolone
- Hydrocortisone
- IVIG
- Rituximab
- Imuran
- Cyclosporine
- Azathioprine
- Mycophenolate mofetil
- Thymectomy

Meds/treatment on within 60 days post TPE

- None
- Mestinon (Pyridostigmine)
- Prednisone;
- Methylprednisolone
- Hydrocortisone
- IVIG
- Rituximab
- Imuran
- Cyclosporine
- Azathioprine
- Mycophenolate mofetil
- Thymectomy

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**Meds- status assessment, please assess status from pre\_TPE baseline to within 10 days post last TPE**

	No change	Decreased	Stopped	Increased	Added
Mestinon (Pyridostigmine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prednisone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methylprednisolone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydrocortisone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IVIG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rituximab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Imuran	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclosporine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Azathioprine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mycophenolate mofetil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**Meds-status assessment, please assess status from pre\_TPE baseline to within 30 days post last TPE**

	No Change	Decreased	Stopped	Increased	Added
Mestinon (Pyridostigmine)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prednisone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Methylprednisolone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrocortisone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IVIG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rituximab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Imuran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cyclosporine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Azathioprine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mycophenolate mofetil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Meds-status assessment, please assess status from pre\_TPE baseline to within 60 days post last TPE**

	No Change	Decreased	Stopped	Increased	Added
Mestinon (Pyridostigmine)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prednisone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Methylprednisolone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrocortisone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IVIG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rituximab	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Imuran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cyclosporine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Azathioprine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mycophenolate mofetil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Replacement solution predominantly used

- 5% albumin
- Plasma protein fraction/plasmanate
- FFP
- Plasma >24 hrs thawed
- Normal Saline
- Hetastarch
- Others

If solution other than albumin/plasmanate was used was it because of:

- Possible coagulopathy
- It is standard protocol at my institution
- Availability of primary product
- Patient preference
- Possible transfusion reaction
- Other

If Other, please explain:

\_\_\_\_\_

Volume of exchange (average):

- < 1 plasma volume
- 1.0-1.25
- 1.26 -1.50
- 1.51-1.75
- 1.76-2.00
- 2.01-3.0
- >3.0

Frequency of exchange

- Daily
- Every other day including weekends
- Every other day, not including weekends
- Once a week
- Twice a week
- Weekly
- Every other week
- Every three weeks
- Monthly
- Every two months
- Other

Others, please detail

\_\_\_\_\_

Notes for TPE session

\_\_\_\_\_

# Tpe Procedure Informationmuskmg

Start date of this TPE Procedure

\_\_\_\_\_  
(, please enter 1:00 am)

Global Neurological Assessment (baseline or since last TPE)

- Baseline-First TPE
- 1-No improvement
- 2-Mild improvement (slight but definite change and with no impact on the daily function)
- 3-Moderate improvement (obvious improvement that impacts daily function)
- 4-Marked improvement (significant difference from Pre-first TPE baseline with major functional daily improvement)
- 5-full recovery from Pre-first TPE baseline (Comparing to pre-first TPE baseline)

Plasma Volume Exchanged for This TPE Procedure

- < 0.75 plasma volume
- 0.76-0.99
- 1.0-1.25
- 1.26 -1.50
- 1.51-1.75
- 1.75-2.00
- 2.10-2.50
- >2.5
- Others  
(Plasma volume (No. exchanged), such as 1, 1.5, 2))

Notes for Volume exchanged

\_\_\_\_\_  
(If you answered "others" on the above question, please specify here)

Fluid Balance

- 100%
- 105%
- 110%
- 95%
- Others: Please type in notes

Notes for Fluid balance

\_\_\_\_\_  
(If you answered "others" on the above question, please specify here)

Replacement Fluid 1

- 5% albumin
- Plasma protein fraction/plasmanate
- FFP
- Plasma >24 hrs thawed
- Normal Saline
- Hetastarch
- Others  
(If your fluid is not listed, please use replacement fluid 3)

Notes for Replacement Fluid 1

\_\_\_\_\_  
(If you answered "others" on the above question, please specify here)

Replacement Fluid 1 Volume (ml)

\_\_\_\_\_  
(mL)

Replacement Fluid 2

- 5% albumin
- Plasma protein fraction/plasmanate
- FFP
- Plasma >24 hrs thawed
- Normal Saline
- Hetastarch
- Others  
(plasma, 5% albumin, etc.)

Notes for Replacement Fluid 2

\_\_\_\_\_  
(If you answered "others" on the above question,  
please specify here)

Replacement Fluid 2 Volume (mL)

\_\_\_\_\_  
(mL)

Replacement Fluid 3

- 5% albumin
- Plasma protein fraction/plasmanate
- FFP
- Plasma >24 hrs thawed
- Normal Saline
- Hetastarch
- Others  
(plasma, 5% albumin, etc.)

Replacement 3 notes

\_\_\_\_\_  
(If you answered "others" on the above question,  
please specify here)

Replacement Fluid 3 Volume (ml)

\_\_\_\_\_  
(mL)

Access

- Peripheral access
- IJ central line
- SC central line
- Femoral line
- Permacath
- Fistula
- Others

Access notes

\_\_\_\_\_  
(If access type is not listed, please specify)

Hct, point of care (may also be from non POCT instrument)

\_\_\_\_\_

Anticoagulant used for TPE

- ACD-A
- ACD/Heparin
- Heparin
- Others

Anticoagulant notes

\_\_\_\_\_  
(If anticoagulant is not listed, please specify)

Calcium replacement

- Add Ca into replacement fluid
- i.v. Ca continuous infusion
- p.o. Ca
- i.v. and p.o. Ca
- None
- Others, please specify in notes



Ca replacement notes

(If you answered "others" on the above question, please specify here)

Potassium Replacement

- Yes
- No

Magnesium Replacement

- Yes
- No

RBC priming performed

- Yes
- No

Rinsed performed

- none
  - partial
  - full
- (also known as rinse back)

BPsystolic pre

\_\_\_\_\_

BPdiastolic, pre

\_\_\_\_\_

HR pre

\_\_\_\_\_

Temp (F), pre

\_\_\_\_\_

Temp (C), pre

\_\_\_\_\_

O2 Sat % pre

\_\_\_\_\_

Oxygen Treatment, pre

- RA
- 2L, face mask
- 4L, face mask
- Mechanic Ventilation
- Others

Notes for Oxygen treatment, pre

(If you answered "others" on the above question, please specify here)

BPsystolic, post

\_\_\_\_\_

BPdiastolic, post

\_\_\_\_\_

HR, post

\_\_\_\_\_

Temp (F), post

\_\_\_\_\_

Temp (C), post

\_\_\_\_\_

O2 Sat %, post

\_\_\_\_\_

Oxygen, treatment post

- RA
- 2L, face mask
- 4L, face mask
- Mechanic Ventilation
- Others

Notes for Oxygen treatment, post

(If you answered "others" on the above question, please specify here)

Apheresis Adverse event

- yes  
 no  
 others  
 (If answered yes or others, please fill the next two sections)

Please define the imputability and severity of the adverse reaction:

Imputability:

Definitively: The only explanation

Probable: The likelihood is high, but not absolute

Possible: The likelihood is relatively high, but it is also possible not relate to apheresis

Can't rule out: The likelihood is very small, but not impossible

Not related: not related to apheresis

Severity:

None

Mild: no or minor modification of procedure

Moderate: major modification including stopping of procedure

Severe: patient was admitted or received major medical treatment or death

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### Apheresis Adverse Reaction

	Definitive y	Probable	Possible	Can't rule out	Not related	Mild	Moderate	Severe
Vasovagal reaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Citrate toxicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hypovolemia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood no return	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If added others please note here

Transfusion reaction present?

- No  
 Yes, please report in detail  
 Others, please report in detail

Please define type, imputability and severity of transfusion reaction:

Please use CDC definition

[Attachment: "BV-HV-protocol-current.pdf"]

TPE Procedure Notes

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 (Please use this field to write note for yourself or to the registry)

# TPE Labs

Labs during TPE session/series

Date of Lab \_\_\_\_\_

Time to TPE

- 12-24 hrs prior to starting TPE
- < 12 hrs prior to starting TPE
- During TPE
- Within 12 hrs after finishing TPE
- 12-24 hrs after finishing TPE

PT (sec) \_\_\_\_\_

INR \_\_\_\_\_

PTT (sec) \_\_\_\_\_

Fibrinogen (mg/dL) \_\_\_\_\_

Hct (%) \_\_\_\_\_

Hemoglobin (g/dL) \_\_\_\_\_

Platelet (K/microL) \_\_\_\_\_

Albumin (g/dL) \_\_\_\_\_

Total Protein (g/dL) \_\_\_\_\_

Creatinine (mg/dL) \_\_\_\_\_

Ca (mg/dL) \_\_\_\_\_

Mg (mg/dL) \_\_\_\_\_

Phos (mg/dL) \_\_\_\_\_

iCa \_\_\_\_\_

iCa units

- mg/dL
- mmol/L

Notes of Labs if necessary \_\_\_\_\_

# Clinical Assessmentmuskmg

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**MUSK-MG Clinical Assessment** If possible please collect baseline (before current MG attack), during attack (before any treatment as well as before TPE treatment), pre-TPE baseline, during TPE (as many as you can), about 6 month post TPE

Date of MUSK\_MG Clinical Assessment \_\_\_\_\_

Data Type

- Baseline (before current attack)  
 During Attack (pre-medical treatment, as many as you have)  
 Before first TPE for this session (closest one)  
 During TPE (as many as you have)  
 Post TPE within 1 month  
 Post TPE between 1 and 3 months  
 Post TPE between 3 and 6 months

Clinical symptoms/Information

- None  
 Diplopia  
 Ptosis  
 Dysarthria  
 Dysphagia  
 Limb weakness  
 Shortness of breath  
 intubation

Meds/treatment on

- None  
 Mestinon (Pyridostigmine)  
 Prednisone;  
 Methylprednisolone  
 Hydrocortisone  
 IVIG  
 Rituximab  
 Imuran  
 Cyclosporine  
 Azathioprine  
 Mycophenolate mofetil  
 Thymectomy

Prednisone dose \_\_\_\_\_

Mestinon dose \_\_\_\_\_

Initial of the person who did data extraction \_\_\_\_\_

Data Source

- Extraction from neurology notes  
 Extraction from clinical notes  
 Own assessment  
 Others

Notes for meds/treatment \_\_\_\_\_

# MUSK-MG Lab Results

**MUSK\_MG Lab results** If possible please collect baseline (before current MG attack), during attack (before any treatment as well as before TPE treatment), pre-TPE baseline, during TPE (as many as you can), about 6 month post TPE

Date of testing \_\_\_\_\_

- Data Type
- Baseline (before current attack)
  - During Attack (pre-medical treatment, as many as you have)
  - Before first TPE for this session (closest one)
  - During TPE (as many as you have)
  - Post TPE within 1 month
  - Post TPE between 1 and 3 months
  - Post TPE between 3 and 6 months

- Time to TPE (only during TPE session)
- 12-24 hrs prior to starting TPE
  - < 12 hrs prior to starting TPE
  - During TPE
  - Within 12 hrs after finishing TPE
  - 12-24 hrs after finishing TPE

Anti-AChR (binding, nmol/L) \_\_\_\_\_

Anti-AChR (blocking, %) \_\_\_\_\_

Anti-AChR (modulating, titer) \_\_\_\_\_

Striated Muscle antibody (titer, eg. >1:40) \_\_\_\_\_

(This is the anti-MUSK antibody results)

Reference laboratory where Achr testing was performed. \_\_\_\_\_

(Please comment on where each testing was performed)

Reference laboratory where anti-MUSK was performed \_\_\_\_\_

Reference laboratory where other Ab testing was performed \_\_\_\_\_

Note of Ab testing, including testing of other types of Ab related to MG \_\_\_\_\_