University of Minnesota

Graduate Medical Education

2017-2018
POLICY & PROCEDURE MANUAL

NEUROMUSCULAR MEDICINE FELLOWSHIP

Sponsored by the
Department of Neurology
i. Introduction/Explanation of Manual

This fellowship addendum outlines policies and procedures specific to the Neuromuscular Medicine Fellowship program. Please refer to the Neurology Residency Program Manual for further departmental policies and procedures.

The Neurology Residency Program Policy Manual can be found at:
http://www.neurology.umn.edu/education/home.html

The Institution Policy Manual can be found on the GME website at:
http://Z.UMN.EDU/GMEIM The institutional policy manual is designed to be an umbrella policy manual. Some programs may have policies that are more rigid than the Institution Manual in which case the program policy would be followed. Should a policy in a Program Manual conflict with the Institution Manual, the Institution Manual would take precedence.

ii. Department Mission Statement

The University of Minnesota Neurology Residency Program has continuously graduated Neurology trainees since the 1940s. The program, initially developed under the guidance of Dr. A.B. Baker, the founder of the American Academy of Neurology, continues to provide an outstanding training experience designed to meet equally the needs of the future clinician or academician. The excellence of the training program is one of the highest priorities of the department. Among the significant strengths of the four-year program are the range and the depth of the clinical experience provided at several teaching hospitals, the devotion of the full-time faculty at each of these hospitals to teaching, patient care, and scholarship, and the focus on both clinical and basic research in the midst of a first-rank neuroscience community. The faculty includes over 60 clinical neurologists.

iii. Program Mission Statement

This Neuromuscular Medicine subspecialty fellowship program provides one year of supervised graduate medical education experience with graded and progressive responsibility. Designed to comply with the institutional and ACGME program requirements of accredited fellowships in neuromuscular medicine, the University of Minnesota training program is organized to provide the intellectual environment, formal instruction, peer interaction and broad supervised clinical experience necessary for fellows to master the knowledge, skills and attitudes essential to the practice of neuromuscular medicine, research, or a teaching career in neuromuscular medicine. Central to these goals is the fellows’ attainment, at the level of a practitioner, of the six ACGME core competencies in the areas of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice, as described in Section II. New developmental milestones will be added as required by the ACGME.

Prior to entering this program, trainees must have satisfactorily completed the eligibility conditions defined by the ACGME’s Neuromuscular Medicine Program Requirements, and be board eligible.
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SECTION 1 - STUDENT SERVICES

CAMPUS MAIL

Each trainee has a designated mailbox in the department. Trainees are expected to pick up their mail at least weekly. The address for receiving mail in the department is:

University of Minnesota
Department of Neurology
Attn: [name]
420 Delaware St, S.E., MMC 295
Minneapolis, MN 55455
Administration Fax: 612-525-7950

E-MAIL AND INTERNET ACCESS

Each trainee has been assigned their own University email account prior to the start of their orientation. This account is to be used for all program, department, and University business communications. The use of personal non-University email accounts is not permissible for business communications.

Announcements about important institution and program events or requirements are sent to your official University email account. Trainees are expected to check this account daily.

There are several computers available for use in the fellows’ room. Each has internet access. University email can be accessed via the web-based Gophermail application at www.mail.umn.edu, or via other email software such as Outlook or Thunderbird.

If you choose to forward your University email to your personal email account, you may do so at www.umn.edu/dirtools. After logging in with your x.500, go to “Set email forwarding and auto reply”, then to “Set Email Forwarding”, and check ‘other’. Enter your personal email address, and ‘submit’.

BADGES

All trainees and staff are required to have Academic Health Center badges, and to wear them. Your program coordinator will help you obtain your badge as part of your onboarding process. You will also be required to have badges for every hospital where you rotate and to always wear them when providing patient care.

HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA) TRAINING

Residents are required to complete the University Privacy Training and the Public Jobs: Private Data Security Training. The Academic Health Center has designed training programs which are located at www.myu.umn.edu and are accessed via the trainee’s University of Minnesota x500 Internet password. Once authenticated (“signed in”), go to the “my WORK
LIFE” tab to access the courses. The University provides 90 days to complete your required training. For more information, as your program coordinator to put you in touch with the department’s Privacy & Security Coordinator.

Compliance is mandatory. Failure to complete the required training could result in suspension of your participation at these sites. PLEASE REVIEW THE USE OF INFORMATION TECHNOLOGY RESOURCES STANDARDS BELOW. If you need to review the rest of the HIPAA requirements please visit the website at http://www.ahc.umn.edu/privacy/hipaa/home.html

Using Information Technology Resources Standards

Use of IDs and Passwords

- Do not share the password assigned to you.
- Select an obscure password and change it frequently.
- Understand that you are responsible for all activities on your username/account ID.
- Ensure that others cannot learn your password.
- If you have reason to believe that your username/account ID or password has been compromised, contact your System/Network Administrator immediately.

Use of Information/Data

- Access only accounts, files, and data that are your own, that are publicly available, or to which you have been given authorized access. Secure information that is in your possession.
- Maintain the confidentiality of information classified as private, confidential or data on decedents.
- Use University information for tasks related to job responsibilities and not for personal purposes.
- Never disclose information to which you have access, but for which you do not have ownership, authority, or permission to disclose. Keep your personal information/data current.
- Accurately update your own records through University self-service systems and other processes provided for you.

Use of Software and Hardware

- Use University e-mail, computers, and networks only for legal, authorized purposes. Unauthorized or illegal uses include but are not limited to:
  - Harassment;
  - Destruction of or damage to equipment, software, or data belonging to others;
  - Unauthorized copying of copyrighted materials; or
  - Conducting private business unrelated to University activities.
- Never engage in any activity that might be harmful to systems or to any information/data stored thereon, such as:
  - Creating or propagating viruses;
  - Disrupting services or damaging files; or
  - Making unauthorized or non-approved changes.
- When vacating computer workstations, sign-off or secure the system from unauthorized use.
• Use only legal versions of copyrighted software on University of Minnesota owned computer or network resources, in compliance with vendor license requirements.
• Be aware of any conditions attached to or affecting the provision of University technology services:
  • Consult with the system administrator for any questions about system workload or performance.
  • Refrain from monopolizing systems, overloading systems or networks with excessive data, or wasting computer time, connect time, disk space, printer paper, manuals, or other resources.

Consequences of Violations
Access privileges to the University's information technology resources will not be denied without cause. If in the course of an investigation, it appears necessary to protect the integrity, security, or continued operation of its computers and networks or to protect itself from liability, the University may temporarily deny access to those resources. Alleged policy violations will be referred to appropriate University investigative and disciplinary units. For example, alleged violations by students may be directed to the Student Judicial Affairs office. The University may also refer Women’s Health Special liststed violations of law to appropriate law enforcement agencies. Depending on the nature and severity of the offense, policy violations may result in loss of access privileges, University disciplinary action, and/or criminal prosecution.

PAGERS

The Department of Neurology assigns a pager to each resident and fellow for the duration of their program, at no cost to the trainee. Trainees are required to replace lost pagers at their own expense, and may do so at the Information Desk in the UMMC hospital main lobby. This is also the location for exchanging damaged pagers.

Program coordinators have batteries available.

Trainees are required to have their pagers, and turned on, when they are ‘on call’.

Tuition and Fees

University Tuition and Fees are being waived at this time for residency and fellowship program training. However, any trainees who are enrolled in Graduate School must pay their own tuition and fees.
SECTION 2 - BENEFITS

EXERCISE ROOM

The University of Minnesota Medical Center, Fairview (UMMC) Medical Executive Committee has graciously provided an exercise facility for use by University of Minnesota residents and fellows.

Location:
Room C-496 Mayo Memorial Building
(Locker rooms/showers are located directly across the hall)

Hours:
The facility is open 24 hours a day, 7 days a week

Access Code to Exercise Room and Locker Rooms:

9111 (Please do not share with anyone other than residents and fellows)
The space also includes a small kitchenette area with refrigerator, microwave, coffeemaker and hot/cold water dispenser. If you have any concerns about the facility, call 612-273-7482.

CALL ROOMS

There are call rooms available at both UMMC and HCMC for fellows to use if they are too tired to drive home.

UMMC – on 4th floor of Mayo building, next to C-496 exercise room
   Call 626-6330 for reservations; check-in time 2:00pm to 7:00 am
HCMC – walkin available at R5.302, door code 2354.
   Reserve through Katie Dolan, 873-2595 x4 when need is known in advance

UMMC also has a general resident lounge on the 6th floor, which offers a TV, computer, telephone, and light refreshments (restocked twice a day).

HEALTH BENEFITS

The University of Minnesota is pleased to offer a broad range of benefits to Medical School residents and fellows. The following benefits are administered by the Office of Student Health Benefits, 410 Church Street S.E., N323, Minneapolis, MN 55455. For more information, visit the Office of Student Health Benefits website at www.shb.umn.edu or email umshbo@umn.edu.

Medical Coverage: HealthPartners Residents and Fellows Health Plan - HealthPartners provides the health plan network and claims administration services for University of Minnesota Medical School residents and fellows. HealthPartners gives members access to 650,000 healthcare providers and 6,500 hospitals across the United States. You will have a choice of two plans, Basic or Basic Plus. All residents and fellows are required to enroll
in one of the two plans for at least single coverage, or provide documentation of other comparable health benefit coverage. Medical School residents and fellows who enroll in the University-sponsored HealthPartners plan (and enrolled dependents) are automatically eligible for Continuation of coverage through COBRA at the end of their residency or fellowship.

**Dental Coverage:** Delta Dental
Delta Dental of MN provides dental network and claims administration services for University of Minnesota Medical School residents and fellows. Delta Dental members have access to both PPO and Premier providers. Medical School residents and fellows who enroll in the University-sponsored Delta Dental plan (and enrolled dependents) are automatically eligible for Continuation of care through COBRA at the end of their residency or fellowship.

**Life Insurance:** Minnesota Life
Medical School residents and fellows are automatically enrolled in a $50,000 standard life Minnesota Life insurance policy. Enrollment is no cost to Medical School residents and fellows (the cost is covered by your department). In addition to the standard plan, residents and fellows have the option to purchase voluntary life insurance for themselves or their dependents at low group rates through Minnesota Life. Medical School residents and fellows are automatically eligible for Continuation of life insurance coverage through COBRA at the end of their residency or fellowship.

**Long and Short Term Disability Coverage:** Guardian Life Insurance Company
Medical School residents and fellows are automatically enrolled in a long and short term disability insurance policy. Enrollment is no cost to Medical School residents and fellows (the cost is covered by your department). Guardian offers Medical School residents and fellows up to $10,000 per month of individual coverage. In addition, Guardian offers a Student Loan Payoff benefit effective if you become disabled while you are a resident. Guardian also offers a unique Guaranteed Standard Issue Plan option. Residents and fellows have the option to purchase long term disability coverage that you can take with you upon completion of your residency/fellowship regardless of any pre-existing medical conditions—25-30 percent of residents and fellows would not otherwise qualify for this type of coverage due to pre-existing medical conditions.

**Flexible Spending Accounts**
Medical School residents and fellows are eligible to participate in two types of Flexible Spending Accounts (FSAs), the U of M Health Care Reimbursement Account and the Dependent Care Reimbursement Account. Both programs allow you to pay for related expenses using pre-tax dollars.

**LAUNDRY SERVICE**
Laundering of scrub suits is provided for residents at all sites. Scrubs should be used at the site they were obtained from. Wearing scrubs from different sites is discouraged at some sites and prohibited in others. See site coordinators for information.

**LEAVE POLICIES**
Trainees must give notice, in writing, of intent to use parental leave and other leaves used in conjunction with parental leave (such as a medical leave) to their program director at least four (4) weeks in advance, except under unusual circumstance. **45-60 days in advance preferred.**
Holidays that occur during a leave of absence run concurrent with the leave and are not in addition to the leave.

**Parental Leave**

The resident/fellow (trainee) as defined below must give notice, in writing, of intent to use parental leave and other leaves used in conjunction with parental leave to their program director (and coordinator) at least four (4) weeks in advance, except under unusual circumstances.

Birth mother: A birth mother shall be granted, upon request to the program director, up to six weeks parental (maternity) leave for the birth of a child. The maternity leave may begin at the time requested by the trainee, but no later than six weeks after the birth and no sooner than two weeks before the birth. The leave must be consecutive and without interruption.

Trainees on maternity leave will receive the first two weeks of their leave as paid parental leave. This paid parental may be charged against the trainees’ vacation, or sick allocation. Note: The first two weeks of this paid parental leave covers the required fourteen day wait period before they are eligible to receive the short-term disability benefit, see Office of Student Health Benefits website. [http://www.shb.umn.edu/twincities/residents-fellows-interns/m-residents-fellows-health-plan.htm](http://www.shb.umn.edu/twincities/residents-fellows-interns/m-residents-fellows-health-plan.htm). Department of Neurology program coordinator and the Clinical Neuroscience Administrative Center HR staff will assist with the paperwork details for taking a maternity leave.

Trainees that have vacation available may use it in conjunction with the short-term disability benefit during their maternity leave.

Birth father:
A birth father shall be granted, upon request to the program director, up to two weeks paid parental leave for the birth of a child. The leave may begin at the time requested by the trainee, but no later than six weeks after the birth and no sooner than two weeks before the birth. The leave must be consecutive and without interruption. This paid parental leave may be charged against the trainees’ vacation, or sick allocation.

Registered same sex domestic partner:
Registered same sex domestic partner of someone giving birth shall be granted, upon request to the program director, up to two weeks paid parental leave. The leave may begin at the time requested by the trainee, but no later than six weeks after the birth and no sooner than two weeks before the birth. The leave must be consecutive and without interruption. This paid parental leave may be charged against the trainees’ vacation, sick or PTO allocation.

**Family Medical Leave Act (FMLA)**

Medical Residents/Fellows are eligible to be part of the Family Medical Leave Act (FMLA) if they have worked at the University for at least 12 months (not required to be consecutive) and worked at least 1,250 hours in the 12 months preceding the commencement of the leave. Leave shall not exceed 12 weeks in any 12-month period. The 12-month period is based on an academic year (07/01-06/30). A resident/fellow may qualify for Short-Term and Long-Term Disability benefits, so check those sections also. The Department will review the trainee’s appointment record to verify eligibility for FMLA when there has been a request for a Leave
of Absence. If eligibility has been met, leaves will be entered into the trainee’s record as FMLA. Also see the section on effects of leaves on the duration of training.

Vacation/Sick Leave

The Department of Neurology provides each trainee with three weeks of vacation and one week of sick leave. For all scheduled time off (e.g., vacations, personal business, interviews, conferences, etc) it is the trainee’s responsibility to fill out a Time Away Request Form and submit it to the fellowship coordinator. **Trainee must also inform the faculty and colleagues that would expect them in clinic or on the ward.**

A maximum of two weeks of vacation may be taken at a time. Do not make travel arrangements until you get approval for the time off.

Holidays

The educational requirements and the 24 hour operational needs of the hospital are taken into consideration when scheduling holiday time off. The program coordinator will work with each of the trainees in determining that days off are spread among all trainees. Keep in mind that some hospital sites observe different holidays than the University of Minnesota. Make sure that the VA and HCMC know well in advance (60 days preferred) when you plan to observe a holiday.

The 10 holidays granted to trainees not on call or inpatient service are:

- Independence Day (usually July 4th)
- Labor Day (1st Monday in September)
- Thanksgiving (4th Thursday in November, plus the day after)
- Christmas (two days that float depending on where 12/25 lands during the week)
- New Years (January 1st and sometimes December 31st)
- Martin Luther King day (3rd Monday in January)
- Spring Floating Day (varies, but usually in mid March)
- Memorial Day (last Monday in May)

Jury/Witness Duty

Upon request to the program director, leave is provided to trainees who are subpoenaed to testify before a court or legislative committee concerning the University or the federal or state government.

Jury Duty: Upon request to the program director, leave is provided to trainees who are called to serve on a jury. Trainees do not lose pay when serving on a jury or testifying as described above. The training program and the fellow may write a letter to the court asking that the appointment for jury duty be deferred based on hardship to the trainee and the program. The decision for deferment is made by the court.

Medical Leave

A trainee shall be granted, upon request to the program director, a leave of absence for their serious illness/injury that requires an absence of greater than 14 days. The trainee may qualify for Short-Term and Long-Term Disability benefits. Refer to those sections. The trainee must give notice, in writing, of intent to use medical leave to their program director at least four
weeks in advance, except under unusual circumstances. Trainees are expected to make every effort to find coverage for their call during their absence and must notify their sites of their absence.

Bereavement Leave

Trainees shall be granted, upon the approval of the program director, up to 5 days off to attend the funeral of an immediate family member. Sick or vacation time must be used. Immediate family shall include spouse, cohabiters, registered same sex domestic partners, children, stepchildren, parents, parents of spouse, and the stepparents, grandparents, guardian, grandchildren, brothers, sisters, or wards of the trainee.

Military Leave

Please refer to the Institutional Policy manual for the policy on military leave.

Personal Leave of Absence

Only under unusual circumstances such as a personal or family emergency, will a personal leave of absence be considered. Trainees must give notice, in writing, of intent to use personal leave to the Program Director at least four weeks in advance, except under unusual circumstances. Residents are expected to make every effort to find coverage for their call/night float/shift and must notify their sites of their absence. If a trainee takes a leave, this will be considered when approving future vacation requests (especially when the request is for the same time period as a resident who has not taken a leave). A resident requesting a non-medical personal leave must use all remaining vacation and sick days, if the trainee does not have any PTO time left, they will be required to use unpaid time.

Professional Leave

Fellows may be approved to attend off site conferences. Time away for conferences must be requested and approved in the same manner as other leaves. Hospital coverage must be coordinated among the fellows; not all fellows may be gone at the same time. Check with the program director regarding availability of funds for reimbursing conference travel; funds are not available every year.

Policy on Effect of Leave for Satisfying Completion of Program

Time off beyond any paid leave time defined above must be taken as leave without pay. Any leaves without pay extend the program graduation date.

Professional Liability Insurance

Professional liability insurance is provided by the Regents of the University of Minnesota. The insurance carrier is RUMINCO Limited. Coverage limits are $1,000,000 each claim/$3,000,000 each occurrence and form of insurance is claims made. “Tail” coverage is automatically provided. The policy number is currently RUM-1005-14.
Coverage is in effect only while acting within the scope of your duties as a trainee. Claims arising out of extracurricular professional activities (i.e. moonlighting) are not covered. Coverage is not provided during unpaid leaves of absence.

For further information about this coverage, visit the ‘Resident and Fellow information and Resource Guide’ at [http://www.med.umn.edu/residents-fellows/current-residents-fellows](http://www.med.umn.edu/residents-fellows/current-residents-fellows) and see the ‘Medical Malpractice section.

**MEAL TICKETS/FOOD SERVICE**

Trainees on duty have access to adequate and appropriate food services 24 hours a day at all institutions. HCMC add funds to meal cards based on the number of days rotating at that hospital. The UMMC meal card policy is more restrictive, and based on the number of night/weekend shifts worked.

If you take night or weekend shifts, your Program Coordinator will help you obtain UMMC meal cards, and provide you with a copy of the UMMC policy.

**PARKING SERVICES**

Parking is provided at both UMMC and HCMC at no cost to the trainee. See Katie Dolan for parking arrangements at HCMC, and Pat Bulgerin for parking arrangements at UMMC.

In the event that a UofM parking ramp card is lost, the trainee must visit the Parking Services office at 300 Washington Ave and pay $15 for a replacement card. Parking Services will want to know the number on the lost card – the Program Coordinator has a master list and can help find that number. The trainee must also inform their Program Coordinator of the number on any new cards assigned to them.

All parking cards are the property of the issuing hospital, and must be turned in at the end of the fellowship.

For a nominal fee ($25), UMMC also offers residents/fellows off-hour parking in their patient ramp. To get approved for this parking, visit the UMMC Parking/Security desk in Mayo B340.

**SHUTTLE SERVICE**

**Intercampus**

A Fairview shuttle service is available between the Riverside and University campuses from 5:20 a.m. to 8:30 p.m. See the shuttle schedule near the boarding locations on each campus. The shuttle picks up and drops off at the VCRC circle on East River Rd on the University campus and in the West circle entrance outside Subway restaurant on the Riverside campus.

FALL, SPRING & SUMMER SEMESTERS:

- Monday–Friday (No service during weekends, breaks and holidays.)
- 7:00 am – 5 pm every 15 minutes
- Monday–Friday (Fall and Spring Semester ONLY)
- 5:00 pm – 10 pm every 30 minutes
Clinic and Surgery Center (CSC)
A free M Health shuttle service is available between the hospital lobby door on Harvard Street and the new Clinic and Surgery Center (CSC) clinic building at 909 Fulton St SE. It runs every 5-10 minutes.

STIPENDS and PAY DATES
Trainee stipends are determined centrally by the Graduate Medical Education Council and published each January. For Academic Year 2017-2018, the stipend rate relevant to this fellowship is:

- Level 5 $61,466 annually

The University of Minnesota pays employees on a delayed biweekly pay period basis, with each pay period starting on a Monday and ending on a Sunday. Employees are paid every other Wednesday, 10 days after the end of the pay period.

Trainees will receive paychecks in one of two ways: a paper paycheck or Direct Deposit. Paper checks are mailed to each fellow’s home address.

Whether receiving a paper paycheck or Direct Deposit, fellows can view their pay statements online, through the MyU website.

Direct Deposit is very strongly encouraged and can be submitted or updated by visiting the My Pay tab of the ‘MyU’ website (www.myu.umn.edu, x500 login required.) At the bottom of the page are links for direct deposit set up, viewing pay statements, declaring W-4 tax information, etc.

VISA SPONSORSHIP
The J-1 alien physician visa sponsored by ECFMG is the preferred visa status for foreign national trainees in all UMN graduate medical education programs; therefore, the neuromuscular medicine fellowship in the Department of Neurology sponsors only J-1 visas.

WORKERS’ COMPENSATION
The University is committed to providing trainees with comprehensive medical care for on-the-job injuries. Under Minnesota statute, Medical trainees are considered employees of the University of Minnesota for Workers’ Compensation insurance purposes. When a trainee is injured during training, they must take immediate steps to report injury to the University. The University cannot pay bills for trainee treatment unless an injury report is on file. The Medical Resident/Fellow must complete the following steps in case of a work related injury:

1. Report any work related injury to your Supervisor on the day or shift that it occurs. You must complete an Injury Report form at the rotation site where the injury occurred and follow the sites protocolfor the specific injury (e.g. needle sticks, surgical injuries, etc.).
2. You MUST also complete and sign a University of Minnesota “Employee Incident Report” as soon as possible following the injury. To obtain the Employee Incident
Report form contact your Program Coordinator. Complete the form and return to your coordinator for forwarding to Workers’ Compensation. Also forward any medical bills that you have received regarding the injury. The University of Minnesota Workers’ Compensation Department will review for payment.

**NEEDLE STICKS AND BLOOD BORNE PATHOGEN EXPOSURE (BBPE) MANAGEMENT**

**24 Hour Help Line: 612-339-3663**

Quick Steps – What to Do First!
1. Clean it.
2. Get treated.
3. ID the source patient.
4. Report it. Contact the faculty on service. (ALSO within 24 hours contact your Program Coordinator to obtain an Employee Incident Report).
5. Get a follow-up exam.
   Contact Occupational & Environmental Medicine at 952-883-6999.

**IMPORTANT: The Centers of Disease Control and Prevention recommend that the exposed person seek treatment within 1-2 hours after initial exposure.**

Note: If you are a resident/fellow, it is your responsibility to learn facility-specific exposure protocols when you begin your rotation. Please see employee health at your facility to learn procedures.

The detailed steps to manage an exposure are on the Occupational Health and Safety website, as well information on the Bloodborne Pathogen Training Program.

If you are on rotation at one of our major affiliated sites, their Occupational Health and Safety (OHS) offices are available to help you during their regular business hours.

After you have completed the steps listed above, please make sure that a First Report of Injury (FROI) form is completed within 8 business hours (1 work day). This is required by the Department of Labor and Industry and is also necessary to pay the bills that are incurred as a result of the injury.

The preferred method of completing a First Report of Injury (FROI) form is via the on-line e-FROI. In order to access the e-FROI, you must log-in with the employee ID or the x500 of the injured party. The e-FROI guides you through the process of completing the required information. Upon submission, the completed e-FROI goes directly to Sedgwick Claims Management and Peggy Handt, your area contact, at 612-624-6019. Be sure to choose "Twin Cities All Other" in the drop-down for the campus in the e-FROI.

If the e-FROI is not available for accessing online, it is possible that the system is temporarily down; instead, you can submit a fillable First Report of Injury (FROI) form. Complete all required information in the fillable FROI, save as a PDF, and email the completed FROI to 211@sedgwickcms.com.

If you print off the FROI and complete it manually, fax the completed form directly to Sedgwick Claims Management (SCM) at 952-826-3785.
You should hear from an adjuster at Sedgwick Claims Management (SCM) within 3 business days of submission of the completed e-FROI. If you do not hear from SCM within 3 business days, contact Peggy Handt at 612-624-6019 to make sure that your e-FROI was received at Sedgwick.

A Supervisor Incident Investigation Report is also required and must be completed within 24 business hours (3 work days). This form can be found at: http://policy.umn.edu/Policies/hr/Benefits/WORKERSCOMP.html. It is located under "forms/instructions". Fax the completed form directly to Sedgwick Claims Management at 952-826-3785.

Further instructions can be found in the Reporting Workers Compensation Related Injuries policy on the Uwide Policy Library.

If you receive a bill as a result of the injury, please retain the bill and fax it to Sedgwick Claims Management at 952-826-3785.

**If you receive initial treatment for a BBPE at a training site Employee Health Office or Emergency Room, please identify yourself as a UM resident/fellow.**

**The cost of testing the source patient is the responsibility of the site at which the needlestick/blood borne pathogen exposure occurred.**

SECTION 3 - INSTITUTION RESPONSIBILITIES


SECTION 4 - DISCIPLINARY AND GRIEVANCE PROCEDURES

SECTION 5 - GENERAL POLICIES AND PROCEDURES

(Please refer to Institution Policy Manual at http://hub.med.umn.edu/graduate-medical-education/policies-governance/graduate-medical-education-institution-manual for Medical School Policies.)

NEUROMUSCULAR MEDICINE PROGRAM

Overview

1. Neuromuscular Medicine (NMM) is a sub-discipline of neurology that deals with the pathophysiology, genetics, pathology, diagnosis, and treatment of neuromuscular disorders at a level significantly beyond the training and knowledge expected of a general neurologist or child neurologist. The mission of the Neuromuscular Section is to provide core competency standards of training for the evaluation and treatment of patients with neuromuscular disorders; to reduce death and disability for these diseases; and to improve coordination and treatment of patients with neuromuscular disorders.

2. Specialists in NMM possess specialized knowledge in the science, clinical evaluation, and management of disorders of the motor neuron, nerve roots, peripheral nerves, neuromuscular junction and muscle that affect patients of all ages. Specific diseases within NMM include amyotrophic lateral sclerosis, peripheral neuropathies, the muscular dystrophies, inflammatory myopathies, myasthenia gravis and related disorders of neuromuscular transmission, and other less common disorders. Diagnostic procedures relevant to NMM include nerve conduction studies and electromyography, autonomic testing; nerve, muscle, and skin biopsy; genetic testing, nerve and muscle imaging, forearm exercise testing, and immunologic testing. Therapeutic modalities include pharmacologic therapies, immunomodulatory therapies (immunosuppressive drugs, plasmapheresis and IVIg) and rehabilitation of neuromuscular disorders.

3. The practice of NMM is based on a fundamental, detailed knowledge of the anatomy, physiology, and biochemistry of the peripheral nervous system and muscle and requires an interdisciplinary approach involving basic science, epidemiology, clinical neurology, risk factor identification and management, pharmacology, electrophysiology, pathology, neurological critical care, rehabilitation and supportive services, and counseling. The field of NMM is of major importance to all areas of patient care.

Program Goals

The main goal of the training in Neuromuscular Medicine is to provide the resident with the opportunity to develop the expertise necessary to evaluate and manage patients with neuromuscular disorders using specialized procedures and techniques. To that effect, we
intend to develop the trainees through graded autonomy to the level of independent practitioner in the ACGME Competencies and NMM professional societies-approved developmental milestones.

**ACGME COMPETENCIES**
(The ACGME competencies abbreviations are tied to all Goals and Objectives in the NMM rotations, as defined below.)

**Patient Care (PC)**- Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

**Medical Knowledge (MK)**- Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

**Practice-based Learning and Improvement (PBLI)**- Fellows are expected to develop skills and habits to be able to meet the following goals:

- systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; and,
- locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems.

**Interpersonal and Communication Skills (ICS)** - Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

**Professionalism (Prof)** - Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

**Systems-based Practice (SBP)** - Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

It is the intent of the Neuromuscular Medicine training program to develop neurologists and physical medicine rehabilitation specialist into competent neuromuscular specialists. Neurologists / Physiatrists successfully completing the program will be eligible for Neuromuscular Medicine subspecialty certification by the American Board of Psychiatry and Neurology. The objective is to provide residents with the opportunity to develop the expertise necessary to evaluate and manage patients using the procedures and techniques of Neuromuscular Medicine and that all trainees will pass the examination.

Neuromuscular Medicine includes the assessment of selective neurological disorders involving central, peripheral and autonomic nervous systems and muscles. Assessment, monitoring and treatment are involved in electrophysiological testing in combination with clinical evaluation.

**The goals of the training program** include extensive experience in neuromuscular clinical evaluation, rehabilitation, nerve and muscle pathology, motor and sensory conduction studies and diagnostic electromyography. Familiarity with single fiber electromyography, skin pathology and autonomic function is included.

Clinical competence in Neuromuscular Medicine requires:

a. A solid fund of basic clinical knowledge and the ability to maintain it at current levels for a lifetime of continuous education.
b. The ability to perform an adequate history and physical examination
c. The ability to appropriately order and interpret diagnostic tests
d. Adequate technical skills to carry out selected diagnostic procedures
e. Clinical judgment to critically apply the above data to individual patients
f. Attitudes conducive to the practice of neurology, including appropriate interpersonal interactions with patients, professional colleagues and supervisory faculty, and all paramedical personnel
g. Personal integrity
h. Regular, timely attendance at educational activities in the Department of Neurology
i. Timely dictation of test reports and appropriate letters and phone calls to referring physicians
j. Recognition of professional and unprofessional behavior.
k. Controversial issues require direct and immediate participation of the responsible attending supervising physician

Basic neuroscience pertaining to Neuromuscular Medicine includes knowledge of neuroanatomy, neuropharmacology, neurophysiology, neurochemistry and neuropathology in normal and disease states.

The fellow will have the instruction and practical experience to permit him or her to develop diagnostic, procedural, technical, and interventional skills essential to the performance of Neuromuscular Medicine. The experience includes opportunities to observe, evaluate, and manage inpatients and outpatients of all ages with a wide variety of disorders of the nervous system and muscles as well as to learn the effectiveness of the procedures. The opportunity includes experience in clinical diagnosis and accumulation/interpretation of laboratory data relevant to these disorders as part of outpatient and inpatient diagnostic evaluations with good support from pathology, rehabilitation medicine and radiology. Basic clinical knowledge should include the neuromuscular aspects of the following disease processes of the nervous system:

a) Motor neuron disease
b) Myopathy/neuromuscular transmission disorders
c) Peripheral neuropathy
d) Cranial/spinal single and multiple mononeuropathies
e) Polyneuropathy: infectious/inflammatory
f) Inherited neuropathy
g) Polyneuropathy: ischemia/physical agents/toxins
h) Polyneuropathy/systemic disease

Basic and clinical Neuromuscular Medicine topics will be covered during the one year training period through a combination of clinical experience of both inpatient and outpatient, basic and clinical Neuromuscular Medicine conferences, and EMG case conferences.

FELLOWSHIP GOALS AND OBJECTIVES - CORE COMPETENCIES

Trainees will master advanced knowledge and skills regarding neuromuscular disorders including their assessment, monitoring, treatment and prevention using a combination of clinical evaluation, imaging, interventional techniques, and medication.

Attainment of requisite knowledge, skills, and attitudes will prepare trainees to practice neuromuscular medicine, an interdisciplinary specialty that incorporates aspects of
epidemiology, basic science, clinical neurology, neuroimaging, critical care, neuromuscular pathology, muscular dystrophy, neurobehavior, and neurorehabilitation. Neuromuscular Medicine encompasses both inpatient and outpatient practice. NM Dx are serious and life threatening conditions and many patients require life long care. The inpatient consult rotation will include direct and indirect management of inpatients in the Neuromuscular Medicine clinics and service, as well as consultation for NMM inpatients on other clinical services. Patients will be seen in the critical care units, step-down units, rehabilitation units, electrodiagnostic laboratories and medical and/or surgical beds. The subspecialist in Neuromuscular Medicine will be familiar with all of these patient care environments in the context of the ACGME competencies:

1. Competency: Patient Care
   Fellows are expected to provide patient care that is compassionate, appropriate and effective and to provide care that promotes health, prevents illness and addresses the needs of patients. Trainee will be able to evaluate and manage patients with NM and develop an individualized NM treatment program for each patient.

2. Competency: Medical Knowledge
   Fellows are expected to demonstrate knowledge of established and evolving biomedical, clinical and social sciences, as they relate to each patient’s underlying medical conditions and demonstrate the application of their knowledge to patient care and the education of others. Through mastery of the Neuromuscular Medicine core knowledge content, the trainee will be able to manage clinical problems according to generally accepted best practices and evidence based guidelines.

3. Competency: Practice Based Learning and Improvement
   Fellows are expected to be able to use scientific evidence and methods to investigate, evaluate and improve patient care practices. The fellow will be engaged in ongoing quality improvement through the NM program, including assuring compliance with JCAHO and all other standards. Fellow will also participate in the Neurology morbidity and mortality processes.

4. Competency: Interpersonal and Communication Skills
   Fellows are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families and other members of the health care team. Graduates/trainees will be able to discuss the prognosis and risks/benefits of various management strategies in the setting of NM Dx with patients, families and relevant providers. The trainee will also be a teacher to students, other residents, paramedical and physician colleagues.

5. Competency: Professionalism
   While on the Neuromuscular Medicine service, fellows are expected to behave professionally at all times and demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, an understanding and sensitivity to diversity, and a responsible attitude toward their patients, their profession, and society. The fellow will be able to interact effectively with multiple providers, to support and advocate effectively for NMD patients.

6. Competency: Systems Based Practice
   Fellows are expected to demonstrate both an understanding of the contexts and systems in which health care is provided and the ability to apply this knowledge to
improve and optimize healthcare. The fellow will be familiar with the emergency medical system as well as the multiple community services available for individuals with NMD.

FELLOWSHIP GOALS AND OBJECTIVES - EXPERIENCES

There are 6 major longitudinal experiences during the year of training. The initials following each objective refer to the ACGME core competency addressed (PC=patient care, MK=medical knowledge, Prof=professionalism, PBLI=practice-based learning and improvement, SBP=systems-based practice, CS=communication skills).

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I. NEUROMUSCULAR MEDICINE ROTATION

Objectives and Goals: Fellows will demonstrate knowledge about established and evolving neuroscience that would be critical to the practice of Neuromuscular Medicine in the inpatient and outpatient settings. This includes initiation of and participation in research projects.

A. Fellows will demonstrate knowledge, familiarity, clinical care and research application of:

1. The theoretical basis for clinical interventions used in Neuromuscular Medicine (MK, PC)
2. Major disorders, including: (MK, PC)
   - amyotrophic lateral sclerosis,
   - Neuropathies,
   - neuromuscular junction disorders,
   - Myasthenia gravis and
   - Lambert–Eaton syndrome
   - Muscular dystrophies
   - inflammatory myopathies,
   - other myopathic disorders.
3. Pathophysiology of major Neuromuscular Medicine disorders and familiarity with the
scientific basis of neurological diseases, including: (MK, PC)
   a) neuroanatomy
   b) neuropathology
   c) neurochemistry
   d) neurophysiology
   e) neuropharmacology
   f) neuroimmunology/neurovirology
   g) neurogenetics/molecular neurology and neuroepidemology
   h) neuroimaging
   j) neurological rehabilitation
   k) issues related to neuromuscular disorders

4. Gross and microscopic specimens taken from the normal nervous system and from patients with major neuromuscular disorders

B. Fellows will demonstrate the knowledge, ability and skills to: (MK, PC, Prof, ICS)

1. Perform and document a comprehensive NMM history and examination.
2. Create differential NMM diagnoses
3. Develop and maintain the technical skills to:
   a) identify and describe abnormalities seen in common neuromuscular disorders on radiographic testing
   b) evaluate the application and relevance of investigative procedures and interpretation in the diagnosis of neurologic disease, including the following:
      i. motor and sensory nerve conduction studies
      ii. electromyography
      iii. evoked potentials
      iv. nerve pathology
      v. muscle pathology
      vi. cutaneous nerve fiber pathology
      vii. CSF analysis
      viii. quantitative sensory testing
      ix. interpret neuromuscular genetic testing
      x. radiographic studies as outlined above
4. To recognize and treat major neuromuscular disorders

C. Fellows will maintain and apply an investigatory and analytic thinking approach to clinical situations, to be demonstrated by optimal clinical care of patients; teaching residents and other professionals; formal presentations at conferences; self-initiated independent learning. (MK, PC, ICS, Prof, SBP, PBLI)

D. Fellows will be able to provide patient care that is compassionate, appropriate and effective for the treatment of neuromuscular disorders. (MK, PC)

Fellows will demonstrate knowledge, familiarity and application of:
1. Interpretation and NCS, EMG and muscle, nerve and skin biopsies. (MK, PC, ICS, Prof, SBP, PBLI)
2. Available treatment methods for the major Neuromuscular Medicine disorders and the evidence which supports their use (MK, PC, ICS, Prof, SBP, PBLI)
3. Preventive interventions used in Neuromuscular Medicine (MK, PC, ICS, Prof, SBP, PBLI)

Fellows will:
4. Become strong advocates for the patient’s best interests (MK, PC, ICS, Prof, SBP, PBLI)
5. Strive to provide quality care within available resources (MK, PC, ICS, Prof, SBP, PBLI)
6. Be sensitive to patient’s cultural differences and confidentiality and consent issues (MK, PC, ICS, Prof, SBP, PBLI)
7. Gain familiarity with demographic, social, financial and other factors that impact neuromuscular patients and the services and systems that address them, enabling fellows to (MK, PC, Prof, SBP):
   a. Effectively discuss patient status and prognosis with family members and designated others,
   b. Recognize the impact of health insurance and payment mechanisms on available rehabilitative services and work with other team members to provide optimal care,
   c. Develop an appreciation for the impact of culture and demographic factors on health status and use of health care services in neuromuscular patients and their families.

Demonstrated by:

Clinical care of patients; teaching residents and other professionals; formal presentations at conferences; self-initiated independent learning; direct observation by faculty during clinics and on clinic rotations; case conferences; chart review with supervisors.

E. Fellows will demonstrate the knowledge, skills and attitudes necessary to develop and maintain appropriate interpersonal relationships and to communicate effectively with patients, families, colleagues and the public.

Fellows will demonstrate knowledge, skills and attitudes of:

1. Interviewing techniques (MK, PC, ICS, Prof, SBP, PBLI)
2. Communication techniques (MK, PC, ICS, Prof, SBP, PBLI)
3. Serving as an effective consultant to other medical specialists and community agencies. (MK, PC, ICS, Prof, SBP, PBLI)
4. Communicating effectively with patients and their families (MK, PC, ICS, Prof, SBP, PBLI)
5. Maintaining an attitude of respect for others, even those with differing points of view (MK, PC, ICS, Prof, SBP, PBLI)
6. Exhibiting culturally sensitive, professional, ethically sound behavior in all patient
and professional interactions (MK, PC, ICS, Prof, SBP, PBLI)

7. Maintaining an attitude of interdisciplinary collaboration (MK, PC, ICS, Prof, SBP, PBLI)

Demonstrated by:

Chart documentation; direct observation; teaching others; professional relationships; formal presentations; independent learning; seeking feedback on communication and performance

F. Fellows will demonstrate knowledge, skills and attitudes necessary to initiate self-directed and independent learning. Fellows will keep abreast of current information and practices relevant to Neuromuscular Medicine.

Fellows will demonstrate knowledge, application and familiarity of:

1. Research methodology, including critical assessment of professional journal articles (MK, PC, ICS, Prof, SBP, PBLI)
2. Principles of evidence-based medicine (MK, PC, ICS, Prof, SBP, PBLI)
3. Awareness to available information technologies and the ability to assess them (MK, PC, ICS, Prof, SBP, PBLI)

Fellows will be able to:

1. Demonstrate the ability to obtain, interpret and evaluate up-to-date information from the scientific and practice literature to assist in the quality care of patients (MK, PC, ICS, Prof, SBP, PBLI)
2. Demonstrate the ability to effectively use information technology, including internet-based searches and literature databases (e.g., Medline) (MK, PC, ICS, Prof, SBP, PBLI).
3. Assess the generalizability or applicability of research findings to patients in relation to their socio-demographic and clinical characteristics (MK, PC, ICS, Prof, SBP, PBLI).
4. Develop and Maintain an attitude of inquiry and scholarship, recognizing the need for life long learning (MK, PC, ICS, Prof, SBP, PBLI)
5. Maintain openness and flexibility in treatment approaches with patients, assimilating new knowledge in patient care practices (MK, PC, ICS, Prof, SBP, PBLI)

Fellows will:

1. Demonstrate the knowledge, skills and attitudes necessary to practice professionally responsible, ethical and compassionate care in Neuromuscular Medicine. (MK, PC, ICS, Prof, SBP, PBLI).
2. Provide continuity of care including appropriate consultation, transfer or termination of patients (clinic rotation)
3. Demonstrate appreciation of end-of-life care and issues regarding provision for or withholding of care
4. Promote the highest standards of medical healthcare to the public and
participate in the review of the professional conduct of his or her colleagues
5. Maintain an attitude of inquiry and scholarship, recognizing the need for lifelong learning.
6. Become sensitive to how patient care practices and related actions impact component units of health care delivery
7. Apply Systems-based approaches for controlling health care costs and allocating resources.
8. Advocate for patients within a variety of systems

Demonstrated by:

Self-directed inquiry guiding clinical care of patients; formal presentations which include literature review; teaching others

Other activities on the Neuromuscular Medicine Rotation:

1. Discuss with the attending physician, interpret and dictate neuromuscular consultations on the day of service
2. Edit dictated reports on the following day for attending physician review
3. Organize muscle and nerve biopsy conferences on a rotational basis
4. Present EMG neuromuscular topics on a rotational basis
5. Participate in Journal Club
6. Prepare for participation in the U of M Course in Neuromuscular Disease
7. Give one case presentation per year
8. Participate in neuromuscular lectures to neurology residents
9. Reading suggestions:

   Amato and Russell:  *Neuromuscular Disorders*
   Engel and Franzini-Armstrong: *Myology*
   Dyck and Thomas: *Peripheral Neuropathy*
   Mendell, Kissel and Cornblath: *Diagnosis and Management of Peripheral Nerve Disorders*
   Mitsumoto, Przdebski, Gordon: *Amyotrophic Lateral Sclerosis*
   Engel: *Myasthenia Gravis and Myasthenic Disorders*
   Dumitriu and Amato: *Electrodiagnostic Medicine*
   Brown and Bolton: *Clinical Electromyography*
   Levin and Luders: *Comprehensive Neuromuscular Medicine*
   Preston and Shapiro: *Electromyography and Neuromuscular Disorders*
   Dubowitz: *Muscle Biopsy: a practical approach*
   Oh: *Color Atlas of Nerve Biopsy Pathology*
   Brumback and Leech: *Color Atlas of Muscle Histochemistry*

- Neuromuscular Diseases, General

- **Muscle Pathology**
  Dubowitz V. Muscle Pathology: A Practical Approach. 2nd Ed. Baillière Tindall, 1985

- **Nerve Pathology**

- **Electrodiagnosis**
  Oh, S. Clinical Electromyography. 2nd Ed. Williams & Wilkins, 1993

- **Disorders of Peripheral Nerve**
  Griffin J, Low P, Poduslo J. Peripheral Neuropathy. 3rd Ed. W.B. Saunders Co., 1993

- **Disorders of Muscle**

**Demonstrated by:**

Self-directed inquiry guiding clinical care of patients; formal presentations which include literature review; teaching others

| II. ELECTROMYOGRAPHY/NERVE CONDUCTION ROTATION |

**Goals and Objectives:**

The fellow will be able to
1. Understand the peripheral nervous system neuroanatomy (MK, PC).  
2. Understand the indications for and limitations of electrodiagnostic testing (PC, MK, PBL, SBP)  
3. Perform and interpret nerve conduction studies (PC, MK)  
4. Perform and interpret nerve conduction studies and needle electromyography (PC, MK, PBL)  
5. Perform patient evaluation and develop treatment plans for patient with epilepsy (PC, MK)  
6. Conduct appropriate evaluation of patients with neuromuscular diseases/symptoms (PC, MK, CS)  
7. Formulate and implement appropriate treatment plans for patients with neuromuscular diseases (PC, MK, CS)  
8. Perform and interpret autonomic testing and understand the role of these tests in the evaluation and management of patients with autonomic symptoms (PC, MK)  
9. Effectively communicate complex and difficult diagnoses and information to patients and their families (PC, CS)  
10. Understand the role of hospice and palliative medicine in the care of patients with degenerative and terminal conditions (PC, MK, SBP)  
11. Work effectively with members of a multi-specialty and multi-disciplinary treatment team (PC, SBP, Prof)  
12. Communicate effectively in written and verbal communications with referring providers (PC, MK, SBP, CS).  
13. To learn how to interview, examine, test, diagnose, and treat patients with neuromuscular-related complaints. (MK, PC)  
14. To provide exposure to electrodiagnostic studies, diagnosis, evaluation and treatment of neuromuscular disorders in adults and children. (MK)  
15. Under attending supervision, to perform and interpret at least 200 electrodiagnostic evaluations. (MK)  
16. Every electrodiagnostic study has to be reviewed and staffed with an attending physician. (PBL)  
17. Every patient seen in the clinic has to be discussed and staffed with an attending physician. (PC, PBL)  
18. The fellows will be able to communicate effectively with patients, technologists and referring physicians. (C)  
19. The fellows will show evidence of initiative in self-education. (MK, SBP)  
20. The fellows will demonstrate professionalism by following up on results and further tests in a timely fashion. (P, C)  
21. Improve skills in coordinating care: this would include providing continuous care via telephone or taking responsibility for test interpretation between visits. Fellows will also learn to provide patient education and access appropriate social services to improve quality of life for their patients. (SBP, P)
22. Improve ability to understand and accept diversity in cultures, lifestyles and coping strategies among their patients, and learn to communicate within the patient’s mode of understanding, with a focus on improving overall quality of life. (C, PC)

### III. MUSCLE, NERVE AND SKIN PATHOLOGY ROTATION

**Objectives and Goals:** Fellows will demonstrate knowledge about established and evolving neuroscience that would be critical to the practice of muscle, nerve and skin biopsy.

**A. Fellows will demonstrate knowledge of:**
1. The theoretical basis for processing and evaluating muscle, nerve and skin tissues based on comprehensive understanding of basic tissue reactions to a wide variety of neuromuscular disorders
2. Gross and microscopic specimens taken from the normal nervous system and from patients with major neuromuscular disorders

**B. Fellows will demonstrate abilities to:**
1. Use common devices to perform good quality:
   a) muscle, nerve and skin biopsies
   b) tissue preparation, preservation and processing
   c) tissue histopathologic, enzymatic and immunologic studies
2. Perform:
   a) an abbreviated history and physical exam
   b) an interpretation of the tissue pathologic alterations within 24 hours of the biopsy
   c) review the tissue within 48 hours of tissue availability with the neuromuscular specialist
3. To assess major disorders including disorders of the anterior horn cell, root, plexus, nerve, neuromuscular junction and muscle
4. To use NMM pathological methods in the evaluation and treatment of a wide range of diseases

C Fellows will maintain and apply an investigatory and analytic thinking approach to clinical situations, to be demonstrated by optimal clinical care of patients; teaching residents and other professionals; formal presentations at conferences; self-initiated independent learning. (MK, PC, ICS, Prof, SBP, PBLI)

**D. Fellows will be able to provide and demonstrate knowledge, familiarity and application of:**
1. patient care that is compassionate, appropriate and effective for the treatment of neuromuscular disorders. (MK, PC)
2. interpretation and NCS, EMG and muscle, nerve and skin biopsies. (MK, PC, ICS, Prof, SBP, PBLI)
3. available treatment methods for the major Neuromuscular Medicine disorders and the evidence which supports their use (MK, PC, ICS, Prof, SBP, PBLI)
4. preventive interventions used in Neuromuscular Medicine (MK, PC, ICS, Prof, SBP, PBLI)
5. Strong advocacy for the patient’s best interests (MK, PC, ICS, Prof, SBP, PBLI)
6. Quality care within available resources (MK, PC, ICS, Prof, SBP, PBLI)
7. Sensitiveness to patient’s cultural differences and confidentiality and consent issues (MK, PC, ICS, Prof, SBP, PBLI)

**E Fellows will demonstrate the knowledge, skills and attitudes necessary to develop and maintain appropriate interpersonal relationships and to communicate effectively with patients, families, colleagues and the public. (ICS, Prof, SBP, PBLI)**

**F Fellows will demonstrate knowledge, skills and attitudes of:**

6. Interviewing techniques (ICS, Prof, SBP, PBLI)
7. Communication techniques (ICS, Prof, SBP, PBLI)
8. Serving as an effective consultant to other medical specialists and community agencies. (ICS, Prof, SBP, PBLI)
9. Communicating effectively with patients and their families (ICS, Prof, SBP, PBLI)
10. Maintaining an attitude of respect for others, even those with differing points of view (ICS, Prof, SBP, PBLI)
11. Exhibiting culturally sensitive, professional, ethically sound behavior in all patient and professional interactions (ICS, Prof, SBP, PBLI)
12. Maintaining an attitude of interdisciplinary collaboration (ICS, Prof, SBP, PBLI)

**G Fellows will demonstrate the knowledge, skills and attitudes necessary to initiate self-directed and independent learning. Fellows will keep abreast of current information and practices relevant to Neuromuscular Medicine, demonstrating knowledge, application and familiarity of:**

1. Research methodology, including critical assessment of professional journal articles (MK, PC, Prof, PBLI)
2. Principles of evidence-based medicine (MK, PC, Prof, PBLI)
3. Awareness to available information technologies and the ability to assess them (MK, PC, Prof, PBLI)
4. Obtaining, interpreting and evaluating up-to-date information from the scientific and practice literature to assist in the quality care of patients (MK, PC, Prof, PBLI)
5. Effective use of information technology, including internet-based searches and literature databases (e.g., Medline) (MK, PC, Prof, PBLI)

**H. Fellows will:**
1. Demonstrate the knowledge, skills and attitudes necessary to practice professionally responsible, ethical and compassionate care in Neuromuscular Medicine. (MK, PC, Prof, PBLI)
2. Provide continuity of care including appropriate consultation, transfer or termination of patients (clinic rotation) (MK, PC, Prof, PBLI)
3. Demonstrate appreciation of end-of-life care and issues regarding provision for or withholding of care (MK, PC, Prof, SBP)
4. Promote the highest standards of medical healthcare to the public and participate in the review of the professional conduct of his or her colleagues (MK, PC, Prof, SBP)
5. Maintain an attitude of inquiry and scholarship, recognizing the need for lifelong learning. (MK, PC, Prof, SBP)
6. Become sensitive to how patient care practices and related actions impact component units of health care delivery (MK, PC, Prof, SBP)
7. Apply Systems-based approaches for controlling health care costs and allocating resources. (MK, PC, Prof, SBP)
8. Advocate for patients within a variety of systems (MK, PC, Prof, SBP)

Demonstrated by:

Self-directed inquiry guiding clinical care of patients; formal presentations which include literature review; teaching others. Clinical care of patients; teaching residents and other professionals; formal presentations at conferences; self-initiated independent learning; direct observation by faculty during clinics and on clinic rotations; case conferences; chart review with supervisors.

OTHER ACTIVITIES ON THE NMM PATHOLOGY ROTATION:

1. Discuss with the attending physician, interpret and dictate pathology reports within 48 hours of the day of service in light of the clinical presentation
2. Edit dictated reports on the following day for attending physician review
3. Organize muscle and nerve biopsy conferences on a rotational basis
4. Present EMG neuromuscular topics on a rotational basis
5. Participate in Journal Club
6. Prepare for participation in the U of MN Symposium in Neuromuscular Disease
7. Participate in lectures in EMG and nerve conduction studies to neurology residents
8. Read the first 14 chapters in *Comprehensive Neuromuscular Medicine* by Levin and Luders

### IV. REHABILITATION MEDICINE ROTATION

Objectives and Goals:
The fellow will

1. Learn the fundamentals of neurorehabilitation. (MK, PC, ICS, Prof, SBP, PBLI)
2. Gain an appreciation of the recovery process from neuromuscular and other neurological disorders. (MK, PC, ICS, Prof, SBP, PBLI)
3. Become familiar with Post stroke rehabilitation, patients with traumatic brain injury and spinal cord injury as well as neuromuscular disease, Parkinson’s disease, and multiple sclerosis away from the acute inpatient setting. (MK, PC, ICS, Prof, SBP, PBLI)
4. Become familiar with activities of the physical therapist, occupational therapist and the speech therapist in order to learn how rehab actually helps patient recover from their neurologic illnesses. (MK, PC, ICS, Prof, SBP, PBLI)
5. While rotating on neurorehabilitation, the fellow will:
6. Develop familiarity and expertise with a team approach to rehabilitation including an appreciation of the roles of physical therapy, occupational therapy, communication and swallowing services (PC, SBP).
7. Gain expertise in management of cognitive deficits, spasticity, pain, incontinence, and other common complications of NM disease (PC, MK).
8. Become proficient in determining the appropriate rehabilitation venue for NM disease patients (e.g. acute rehabilitation, subacute rehabilitation, skilled care, outpatient rehabilitation) (PC, MK, SBP).

V. NEUROMUSCULAR RESEARCH ELECTIVE ROTATION

The research elective rotation will adhere to the ACGME core competencies described above.

Goals and Objectives: The goals of the NMM Research rotation are guided by the principles of the AAN Research Statement, and strategies of the Department of Neurology.

Learning Activities
Fellows are expected to complete learning activities in order to become competent in at least the following areas:
1. literature study, to ascertain the exact state of knowledge before undertaking new investigation;
2. formulation of hypothesis and specific goals, ensuring that the hypothesis is testable, that the goals are appropriate, and that statistical power is achievable;
3. development of the research plan and the protocol, including study design, importance of appropriate controls in clinical investigation, and recruitment of subjects, ethical considerations, informed consent and protection of privacy, data
collection modes, full description of procedures, and institutional approval of human investigation, where appropriate, and writing a research grant;

4. **data collection**, including preparation of routine data forms;

5. **development of analytic methods or procedural skills**, as required, and particularly the handling of artifacts, missing data, outliers, and statistical inference;

6. **presentation of results**, preferably both oral and written, emphasizing that no investigation is complete until it is reported as a full paper in peer-reviewed journals;

7. **risk–benefit analysis**, regarding both patient (subject) and societal risk–benefit; and

8. **research ethics**, recognition of key concepts in the conduction of responsible research including but not restricted to data acquisition/management and protection, conflicts of interest, publication practices, and authorship and scientific conduct.

**Activities: 3 – 6 months prior to rotation, during and after rotation:**

- Identify potential mentors and meet with them to discuss potential projects
- Obtain review articles and prior publications in areas of potential research to guide investigative directions.
- Meet with other members of potential research team (lab staff, research assistants, etc)
- Identify research mentor and area of research
- Submit name of research mentor and area of research to Chief of Neurology for approval
- Perform literature search on area of research, develop hypothesis and research protocols, in conjunction with mentor
- Submit and obtain protocol and consent form for IRB approval
- Discuss details of implementation of protocol and review any pertinent late breaking data from other relevant investigations (repeat literature review) that may alter protocol design
- Work with other members of research team, learn respective responsibilities of other members and seek guidance from mentor about role in team; become familiar with other research projects being carried out by research team
- Implement protocol (data collection)
- Present (in neurology fellows’ research conf) the project’s hypothesis and protocol design
- Implement protocol and complete data collection
- Meet with research mentor (one-on-one) no less then twice per week throughout the rotation to discuss progress of research
- Attend all meetings of research team
you are a part of (and any other relevant conferences, as directed by mentor)
Attend all Neurology, Neurosurgery and Neurosciences research conferences
Meet with Chief of Neuromuscular Medicine no less than monthly to review progress
Complete data collection
Perform data analysis with assistance of mentor and/or data center staff
Prepare AAN, UCNS or American Association of Electrodiagnostic Medicine abstract for submission
End of Rotation or Post-rotation:
Present project at national neurology or internal medicine scientific sessions
Submit research to Division of NMM research section
Outline and write paper with mentor
Submit and revise paper as needed for acceptance to peer reviewed journal or national grant agencies

**Objectives and Competencies**

The fellows will be expected to demonstrate the knowledge, skills and attitudes to:

1. Effectively communicate with patients, ancillary staff, research team members and other participants regarding appropriate, ethical and effective conduct of research (IPC, PBLI,SBP)
2. Develop an understanding of the systems and resources necessary to effectively conduct neuromuscular research (MK, SBP)
3. Critically assess the research literature (MK, IPC,PF)
4. Identify a research problem, critically analyze the relevant literature and formulate a competitive research proposal. (MK, IPC,PF,SBP)
5. Understand the benefits of peer review and constructive criticism during all phases of research. (MK,PF,PBLI,SBP)
6. Formulate a scientific research hypothesis, determine whether it is testable, and describe how to test it. (MK, IPC,PF)
7. Become familiar with research methodologies specific to the individual research project. (MK,PBLI,SBP)
8. Learn the basics of experimental design, including the appropriate use of control groups. (MK, PF, IPC)
9. Understanding and application of the concepts of sample size and statistical power to the design of experiments and interpretation of data. (MK, PF)
10. To collect, organize, and preserve experimental data. (MK, PF)
11. To analyze experimental and observational data objectively and evaluate the quality, impact and limitations of the data (MK, PBLI, IPC, PF)
12. Perform clear organization and presentation of research results (IPC, MK)
13. Learn the strengths and weaknesses of basic, clinical, and health services research techniques. (MK, PF)
14. Lead responsible conduct of research including general issues of scientific integrity as well as issues specific to the individual research product including animal care requirements, protection of privacy, informed consent, and institutional approval of human investigation. (IPC, PF, PBLI, SBP)
15. To evaluate the risks and benefits of a research project from the points of view of the research subjects and society. (MK, IPC, PF, SBP)
16. Become ‘expert’ in a very specific area of neuromuscular medicine (MK, IPC, PF)
17. Obtain new skills which may have application to the future practice of neurology (MK, PBLI, SBP)
18. Learn to work as part of a research ‘team’ (often involving several non-physicians with research expertise) (IPC, PF, SBP)

Content and Methods
Direct research experience under the supervision and guidance of a mentor/faculty neurologist.
2. Informal teaching and project discussion with mentor(s)/faculty neurologists.
3. Self initiative and adherence to timelines

Supervision
1. Supervision is provided by the research mentor, program director and Division Chief, with weekly formal and informal interactions. PD maintains supervision through weekly meetings and contact with research mentor and fellow.
2. Other faculty and senior fellows participate in supervising the research fellow and the outcomes of his/her research as needed.

VI. NEUROGENETICS ROTATION

Objectives and Goals:
The goals of the NMM NEUROGENETICS (NG) rotation are guided by the principles of the AAN, and strategies of the Department of Neurology. The fellow will prepared for independent, unsupervised practice of Neuromuscular Medicine, including NEUROGENETICS assessment and counseling of NM diseases

The goals of the rotation in Neurogenetics are to train the NMM fellows in the diagnosis, management, and genetic counseling of individuals with child and adult-onset neurogenetic disease, including mental retardation and single gene disorders of the population. These goals include to prepare the fellow to develop specialized knowledge in the science, clinical evaluation and clinical management of genetic diseases of the nervous system. This encompasses knowledge of the pathophysiology, pathology, diagnosis, and treatment of these disorders at a level that is significantly beyond the training and knowledge expected of a general neurologist.
The goals of the neurogenetics rotation include:

to facilitate the development of neuromuscular medicine subspecialist with expertise in hereditary diseases of the nervous system.

The fellow will be able to

1. be able to provide diagnoses, counseling and care for patients with neurogenetic disorders,
2. be able to educate other physicians, healthcare personnel, and the public about these disorders.
3. acquire expertise in the evaluation and management of patients with hereditary diseases of the nervous system. This includes:
4. develop skill in the interview and examination of patients and families with neurogenetic diseases.
5. demonstrate knowledge of the differential diagnoses for the various clinical presentations of neurogenetic disorders,
6. demonstrate knowledge of patterns of mendelian inheritance and non-mendelian inheritance.
7. demonstrate the ability to recognize common dysmorphologic syndromes.
8. acquire knowledge of the appropriate laboratory investigations for diagnosis of neurogenetics disorders, including the sensitivity and specificity of DNA-based tests.
9. develop expertise in the management of a subset of inherited disorders of the nervous system such as inherited ataxias, Huntington disease, inherited neuropathies, etc.
10. develop expertise, skills and attitudes required in counseling patients and at-risk individuals regarding penetrance, expressivity, prognosis, and recurrence risk.
11. demonstrate knowledge of legal and ethical issues regarding DNA-based and non-DNA-based genetic testing and counseling.
12. develop a familiar background in the molecular biology, neurophysiology, neuroanatomy, neuropharmacology, and neuropathology of neurogenic conditions.
13. be exposed to and demonstrate familiarity with the clinical presentation, laboratory investigation, management and genetic counseling of a wide-range of neurogenic disorders.
14. become familiar with clinical and/or laboratory research neurogenetic methods and the process of writing manuscripts for publication and grant applications.
15. develop the diagnostic and therapeutic skills necessary to provide care for patients with neurogenic disorders.
16. be able to benefit from opportunities to observe, evaluate, and manage patients with a wide variety of hereditary diseases of the nervous system, include inpatient consultation, outpatient care, and knowledge of support services in pathology, radiology, electrodagnosis and genetic and biochemical laboratory medicine.
17. obtain basic science training, including laboratory experience in molecular, genetic or biochemical aspects of neurogenic diseases or basic mechanisms relevant to those diseases
18. participate in discussion and didactic activities on the molecular biology, neuropathology, neurophysiology, and the clinical diagnosis and management of neurogenic disorders.
19. appropriately perform clinical assignments which will include progressively increasing responsibilities for patient care with direct supervision by the appropriate faculty and/or staff.
20. take an active role in the teaching and training of neurology residents.
GOALS AND OBJECTIVES

Medical Knowledge
On completing the Neurogenetics rotation(s), the fellow is expected to be able to:

1. Demonstrate an understanding of the pathogenesis, clinical manifestations and diagnosis of various neuromuscular disorders, and of specific genetic alterations associated with these.

2. Demonstrate an understanding of the relationship between the nature of these changes and the types of tests used to detect these alterations, the performance of and interpretation of these tests, and their pitfalls.

3. Perform, review, interpret and report tests performed in the laboratory:
   a. Nuclear and mitochondrial DNA mutations, duplications, deletions, and repeat expansions.
   b. SMN1 mutations and copy number alterations.
   c. Next generation sequencing and whole exome sequencing.

Patient Care
1. Understand the clinical implications and limitations of these tests and, when appropriate, communicate these to ordering physicians.

2. Understand the ethical and legal aspects of genetic counseling as they apply to neuromuscular medicine.

3. When relevant, collect clinical information, information from neuropathological evaluation of muscle and nerve, other laboratory data, and integrate this with results of tests performed in the laboratory.

4. When these tests are inadequate to answer relevant clinical questions, help the treating physician identify clinically appropriate tests, laboratories performing such tests, and assist the clinician in interpreting these tests.

Practice based Learning and Improvement
1. Regularly collect and study the relevant literature and demonstrate the ability to critically evaluate and compare published material.

2. Review the literature pertaining to the tests performed in the neurogenetics laboratory.

3. Show an understanding of how newly developing molecular technologies such as microarray technology and high throughput sequencing can impact the diagnosis of mitochondrial disorders and other nervous system disorders.

4. Educate others physicians and allied health professionals about these developments in laboratory meetings and in departmental conferences.

Interpersonal and Communication Skills
During the rotation, fellows must demonstrate interpersonal and communication skills that result in effective information exchange and teaming with other health care providers, laboratory personnel, patients, and patients' families. Towards this end, the fellows will:

1. Develop effective working relationships with professional and technical staff in the neurogenetics laboratory, and outside consultants.

2. Demonstrate effective verbal communication skills when communicating results to clinicians, at the appropriate level for the information being transmitted; convey and explain test results clearly, precisely, and concisely to physicians in direct conversations, or at conferences; communicate effectively with technical personnel when troubleshooting assays, or when managing the laboratory.

3. Develop excellent written skills for communication of complicated results when issuing reports, for the development and implementation of new laboratory policies and procedures, and for presentation of scientific research data, as appropriate.

4. Develop presentation skills that include selection of appropriate presentation materials and visual aids, good oral presentation and mannerisms, and the ability to answer questions effectively.

**Professionalism**

During the rotation, fellows must demonstrate a commitment to professional responsibilities, adherence to highest ethical standards, and respect for all. Towards this, they shall:

1. Demonstrate respect and compassion for the patient and a dedication to patient care.
   a. Treat each sample as belonging to a patient, and not just a number.
   b. Show respect for the confidentiality of all patient information.
   c. Understand the need for and the role of appropriate informed consent prior to genetic testing.

2. Conduct themselves with integrity and honor;
   a. If they identify any errors, or any area where there is a possibility of unreliable results, quickly bring this to the attention of those responsible so errors may be prevented, or corrected immediately.

3. Demonstrate reliability in all assigned activities;
4. Demonstrate perfect attendance at all laboratory activities;
5. Demonstrate completeness in the workup of all cases in the neurogenetics laboratory.
6. Educate other health care professionals in the technical aspects and clinical implications of the various functions of the neurogenetics laboratory.
7. Actively assume responsibility and leadership roles:
   a. Progressively assume greater responsibility in the review of cases and quality control. By the end of the rotation, they should be able to independently interpret all test results produced by the laboratory, identify potential problems and suggest corrective action.
   b. Progressively assume greater responsibility in the evaluation of various aspects of laboratory management.
   c. Progressively assume greater responsibility in the oversight of residents rotating in the lab.

8. Pursue continuing professional growth and educational opportunities.
a. Actively participate in academic conferences
b. Actively seek out and interact with various experts in neurology, neurobiology and neurogenetics in the medical center as appropriate for the cases seen in the neurogenetics laboratory.
c. Actively evaluate cases seen in the neurogenetics laboratory for opportunities for scholarly activities, either case reports and reviews, or new diagnostic approaches.

**Systems Based Practice**

1. Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to call on system resources to provide molecular genetic pathology services that are of optimal value. Towards this the fellows shall, where appropriate:

2. Provide guidance to clinicians and counselors to ensure that testing in the neurogenetics is used and integrated into patient care in an appropriate and cost-efficient manner.

3. Demonstrate knowledge of scientific, legal, and ethical issues relating to neurogenetics testing.
   a. Understand the implications not only to patients, but also their families, of results of molecular genetic tests.
   b. Understand the need for informed consent, and as well as the legal requirement for informed consents in the state of MN.
   c. Monitor the compliance of the laboratory with these requirements in cases that the fellow is involved with.
   d. Demonstrate an understanding of the regulatory issues governing the operations of the laboratory, including CLIA regulations, MN State regulations, CAP implementation of CLIA regulations, and the various guidelines of the Clinical Laboratory and Standards Institute (CLSI) to help laboratories meet these guidelines and provide optimal testing services to patients.

4. Demonstrate knowledge of the impact of neurogenetics management and activities on other health care professionals, organizations, and society.

5. with the laboratory director and other faculty, help clients (patient, physicians, referring laboratories), in the provision of optimal patient care.

6. Practice cost-effective health care and resource allocation that does not compromise quality of care.

7. Be an advocate for quality patient care and contribute to clinician education.

8. Demonstrate the ability to assess, understand, and use the resources, personnel, and health care systems necessary to provide optimal care.


10. Demonstrate the knowledge, skills and attitudes required to evaluate and manage adult neurogenetic diseases such as CMT, inherited ataxias, myotonic dystrophy, Niemann-Pick disease, and muscular dystrophies.

**Objectives:**

1. Fellows will demonstrate knowledge, familiarity, clinical care and research application of:
   a) The theoretical basis for neurogenetic interventions used in neuromuscular
diseases (MK, PC)
b) The neurogenetic basis of major neurological disorders: (MK, PC)
c) Pathophysiology of major neuromuscular disorders of genetic origin and familiarity with the scientific basis of neurogenetic testing and counseling (MK, PC)

4. The fellows will be able to:
1. Perform and document a comprehensive NMM history and examination focusing on neurogenetics. (MK, PC)
2. Create differential NM diagnoses, based on neurogenetic knowledge. (MK, PC)
3. Develop and maintain the technical skills to: (MK, PC, ICS, Prof, SBP, PBLI)
   a) Perform appropriate NM genetic testing and counseling
   b) Identify and describe abnormalities seen in NM disorders using neurogenetics testing
   c) Evaluate the application and relevance of neurogenetic investigative procedures and interpretation in the diagnosis and management of neuromuscular diseases.

5. Fellows will be able to provide patient care that is compassionate, appropriate and effective for the treatment of genetic neuromuscular disorders. (MK, PC)

6. Fellows will demonstrate knowledge, familiarity and application of:
   a. Performance and Interpretation of diagnostic and therapeutic neuromuscular genetics procedures for neuromuscular diseases. (MK, PC, ICS, Prof, SBP, PBLI)
   b. Available neuromuscular genetics testing and counseling methods for the major NM disorders and the evidence which supports their use (MK, PC, ICS, Prof, SBP, PBLI)
   c. Preventive neuromuscular genetics testing and interventions used in Neuromuscular Medicine (MK, PC, ICS, Prof, SBP, PBLI)

7. Fellows will:
   a. Become strong advocates for the patient’s and family’s best interests (MK, PC, ICS, Prof, SBP, PBLI)
   b. Strive to provide quality care within available resources (MK, PC, ICS, Prof, SBP, PBLI)
   c. Be sensitive to patient’s cultural differences and confidentiality and consent issues (MK, PC, ICS, Prof, SBP)

8. The fellows will be expected to demonstrate the knowledge, skills and attitudes to:
1. Effectively communicate with patients, ancillary staff, research team members and other participants regarding appropriate, ethical and effective conduct of neuromuscular genetics research (IPC, PBLI,SBP)
2. Develop an understanding of the systems and resources necessary to effectively conduct neuromuscular genetics research (MK, SBP)
3. Outline and write paper, abstract or presentation with mentor. (IPC, Prof, PBLI, SBP)
<table>
<thead>
<tr>
<th>Function/activity</th>
<th>Beginning</th>
<th>Developing</th>
<th>Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical data collection</td>
<td>independent, with staff supplementation</td>
<td>independent, with staff confirmation</td>
<td>independent, with selective staff confirmation</td>
</tr>
<tr>
<td>Formulation of clinical assessments/plans</td>
<td>jointly with staff</td>
<td>independent, with staff confirmation</td>
<td>independent, with selective staff confirmation</td>
</tr>
<tr>
<td>Communication of recommendations to 1 teams/referring MDs</td>
<td>after discussion with staff</td>
<td>preliminary, independent; final, after discussion with staff</td>
<td>independent, with selective staff confirmation</td>
</tr>
<tr>
<td>Case conference preparation</td>
<td>jointly with staff</td>
<td>independent, with staff confirmation</td>
<td>independent, with selective staff confirmation</td>
</tr>
<tr>
<td>Supervision of students/residents</td>
<td>jointly with staff</td>
<td>independent, with staff review</td>
<td>independent, with selective staff review</td>
</tr>
<tr>
<td>Research</td>
<td>directed background reading, tutored skill development</td>
<td>execution of existing projects with staff oversight</td>
<td>analysis and presentation of results, new project development, independent conduct of research with selective staff review</td>
</tr>
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**CONFERENCES AND JOURNAL CLUB**

Fellows will be offered a unique lecture series appropriate to their level and the goal of training subspecialists in neuromuscular medicine. This will include multiple formats: case-based discussions, didactic lectures, journal club discussions, and morbidity and mortality discussions. The following conferences are available during the various rotations.

1. **Required conferences for all rotations:**

   Neuromuscular Medicine conference  8:00 am Fridays, UMMC, Cases in 12-132 PWB on 1st, 3rd, 5th Fridays
   Pathology cases on 2nd Fri in rm D175 Mayo;
   Journal Club on 4th Fri in rm 12-132 PWB

2. **Recommended:**

   Muscular Dystrophy Center Conference  9:00 am UMMC, twice a month
Clinical Neuroscience Conference
Mayo conference room
7:30am Tuesdays, 12-109 PWB
(when at UMMC)

Neurology Grand Rounds
Noon Fridays, UMMC, Sept-July,
rooms vary

3. Additional available conferences:

Neurology/Neurosurgery/Neuroradiology
11:00am Fridays, HCMC, P5.310
case conference (when at HCMC)

Rehabilitation lecture series
Wednesday AM, UMMC PM&R

Autopsy gross neuropathology conference
11:00am Wed (2nd/4th), Ettinger
Conf Rm, HCMC

Neuropathology gross brain conference
9:30am Tuesdays, UMMC, C-145
Mayo

NMM POLICY FOR SUPERVISION OF FELLOWS

Our Fellowship in Neuromuscular Medicine complies with the University of Minnesota Medical School institutional policies for trainee supervision at each level of the fellowship program. They are applied at all sites, and maintained in the Fellowship Manual.

Our program’s policies are also monitored through periodic department reviews, with institutional oversight through the GMEC internal review process.

The NMM fellows are supported, covered, and supervised by faculty at all times, in all cases, including transfer of responsibilities. The only exception may be due to immediate emergency. There is no in-house call.

Our program supports and encourages effective supervisory behaviors, including:

Setting clear expectations
• When to call
• Situations in which trainees should always call
• How to call –provide accurate pager/phone numbers, available in the departmental directory
• Trainees role in the care of the patient
Creating a safe learning environment
• Reassure the trainee that it is always appropriate to call if uncertain
• Recognize and address uncertainty in the trainee

Being readily available
• Answer pages and phone calls promptly (check current Departmental Directory)
• Planned communication (schedule times for calls)

Balancing supervision with fellow autonomy
• Provide input but don’t take over the case.
• The faculty will monitor the fellows’ function and activity according to the level of responsibility and conditional independence. (See table below.)

Being respectful
• Be patient with the fellow regardless of time of day

Being aware of clinical needs that exceed the ability of the fellow
Recognizing sleep deprivation and fellow impairment.
Faculty immediately support and cover the fellows’ responsibility. The wellbeing of the fellow shall be paramount.

EFFECTIVE FELLOW BEHAVIORS
• Neuromuscular fellow may request the physical presence of an attending at any time and is never to be refused
• Know and follow your program’s policies for when you must always contact a supervisor:

SITUATIONS THAT REQUIRE CONTACTING FACULTY
Each institution has specific requirements listing situations in which a trainee must contact the supervising physician immediately. Examples of these situations are:

In outpatient neurology clinic:
• When patients are behaviorally disordered or threatening
• When there is need for a CODE team activation

When on the inpatient service or on consults:
• Unexpected transfer to ICU or higher level of care
• Unanticipated intubation or ventilator support
• Change in CODE status
• Major neurologic change
• Major medical problem (e.g. cardiac arrest, a CODE, new or rapidly worsening respiratory distress, PE)
• Clinical intervention due to medication or treatment errors
• Development of any new clinical problem requiring an invasive procedure or operation for treatment
• Patient, family, or clinical staff request for attending notification.

• If you are uncertain...call your supervisor
• If a patient has a change in status...call your supervisor
- Present data to supervisor accurately. If you omitted part of the exam let them know
- Provide feedback to supervisor regarding what was helpful

**LEVELS OF SUPERVISION**

Direct—The supervising physician is physically present with the trainee and patient

Indirect—
- With supervision immediately available the supervising physician is physically within the hospital or other site of patient care and is immediately available to provide direct supervision
- With direct supervision available the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by phone and/or other electronic modalities and is available to provide direct supervision

Oversight—The supervising physician is available to provide review of procedures/encounters with feedback provided after the care is delivered

**ABSENCES**

All absences must be communicated as far in advance as possible to the program coordinator, and also to the program director and the patient care team.

Vacation: Each fellow is granted 3 weeks of vacation per academic year (15 business days). No more than two weeks of vacation can be taken at any one time, and must be coordinated with the schedules of the other trainees assigned to your hospital’s patient care team so that only one person is gone at a time. There is no carry-over of vacation from one academic year to the next.

Professional leave: Each fellow may take up to 5 business days of academic/professional leave per year to attend out-of-town conferences, board examinations, or job interviews. Any time beyond that must be taken as vacation time.

Other leaves: See Section 2 for a description of other types of leave available.

**CALL ROOMS**

For those rare occasions when a fellow prefers not to (or should not) return home, call rooms are available.

UMMC – on 4th floor of Mayo building, next to the C-496 exercise room
   Call 626-6330 for reservations; check-in time 2:00 pm to 7:00 am.
HCMC – walk-in available at R5.302, door code 2354.
Reserve through Katie Dolan, 873-2595 x4 when need is known in advance.

VA – The resident/fellow room at the Minneapolis VA is 4B-131.

TRaineE LOUnGE

UMMC has a trainee lounge on the 6th floor, which they stock with bottled water and light
snacks several times a day. Fellows should NOT be using the Physician’s Lounge.

LIFE SUPPORT CERTIFICATION

Upon entering an accredited GME training program, such as the NMM fellowship, all trainees
who have direct contact with patients must be certified in Basic Life Support (BLS).
Certification is typically valid for two years. Once the initial certification expires, the trainee
must take a recertification class.

For those trainees required by the hospital to have BLS or any other life saving certification,
they will be recertified at the teaching hospital’s expense. Contact your fellowship coordinator
or tnelson1@fairview.org to get scheduled for training or re-training.

SECURITY/SAFETY

Security and personal safety measures are provided to trainees at all locations, including but
not limited to parking facilities, on-call quarters, hospital and institutional grounds, and related
clinical facilities (e.g. medical office buildings).

Contact Information:
University of Minnesota Medical Center Security Office: 612-273-4544
University of Minnesota Security Monitor Program: 612-624-WALK

VA Medical Center Security Office: 612-467-2007 / office located on the first floor, in
room 1U-162

Hennepin County Security Office 612-873-2359 / office located at RL150

MEDICAL RECORDS

As part of the onboarding process at each site, every NMM fellow receives logon instructions
for accessing that hospital’s electronic medical records system, and information about what
reference materials are available in print in the clinic area. All NMM fellows also have access
to electronic medical literature databases with search capabilities through the University of
Minnesota’s Biomedical Library.

REFERENCE MATERIALS

All NMM fellows also have access to several electronic sources for reference materials.
UMMC Hospital and CSC Clinics

There is access to the Fairview Medical Library both from hospital/clinic computers and using mobile devices. Visit https://intranet.fairview.org/Resources/Information/MedicalLibrary/S_095521 for details about which applications are available and how to access them with your mobile device.

Bio-Medical Library

All residents and fellows have access to full facilities of the University of Minnesota Bio-Medical Library, which is physically located in Diehl Hall (just south of Phillips Wangensteen). Through the Bio-Medical library website https://hsl.lib.umn.edu/biomed and with an x500 login, hundreds of online journals, textbooks, databases, etc, can be accessed. Reference sites, such as UpToDate, PubMed, ClinicalKey, Micromedex, Ovid Medline and more. And to E-Books and journals such as NEJM, JAMA, Neurology, Lancet, etc. (Some of these are accessible only from hospital computers.)

Library subject specialist Jonathan Koffel, jbkoffel@umn.edu, 612-626-5454, is available for help researching a topic or for tips on using library resources.

Moodle

The fellowship maintains a Moodle site exclusively for the fellows. It currently contains many reference articles and can be customized to increase usefulness. Work through Coordinator Pat Bulgerin for major changes. https://moodle.umn.edu

Others

Other sites, like the American Academy of Neurology website, NIH website, etc, also have news articles, practice guidelines.

LABORATORY/PATHOLOGY/RADIOLOGY SERVICES

Inpatient clinical support services are available on a 24-hour basis at University of Minnesota Medical Center, Hennepin County Medical Center, and the Minneapolis VA Health Care System, to meet reasonable and expected demands, including intravenous services, phlebotomy services, messenger/transporter services, Inpatient Radiology services including laboratory and radiologic information retrieval systems allow prompt access to results.

FACULTY (Neuromuscular Medicine faculty)

UMMC/MHealth:
David Walk
Jeff Allen
Peter Karachunski (site director)
Georgios Manousakis (Program Director)

HCMC:
Adam Loavenbruck (site director)
Sam Maiser
Ezgi Tiryaki

VAMC:
Michael Leffler-McCabe
Gregg Meekins (site director)

DUTY HOURS

Exact hours worked must be reported daily into the web-based RMS reporting system. Fellows are expected to log into the RMS online system and report their duty hours daily. Accurate duty hour reporting is extremely important. Among other uses, your time is used to track compliance with the duty hour limitations set by the ACGME and this institution, and to obtain reimbursement from the hospitals towards your salary and benefits. To this end, it is important to log hours frequently – daily reporting is strongly encouraged. All hours worked and all moonlighting (external and internal) hours must be reported. The combined total of hours worked should not exceed 80 hrs per week except in very unusual circumstances. Fellows will have an average of 1 day off per week, averaged over a 4-week period.

The fellowship coordinator will work with each fellow to ensure that reporting is up-to-date before each monthly cut-off; and that the appropriate activity codes are being used for duties at each site.

Fellows that become aware of recurring duty hours that exceed 80 hours per week, or that do not allow at least 10 hours of rest/personal time overnight, or do not allow at least four days off per month, are encouraged to bring the matter to the attention of not only the fellowship coordinator, but also to the program director, so any issues can be addressed and corrected.

MOONLIGHTING

Fellows interested in moonlighting must discuss it with the Program Director. If moonlighting is approved, a letter will be written formally approving moonlighting. No moonlighting can be performed without an approval letter. All moonlighting hours must be reported via the RMS duty hours, and will be counted towards the 80 hour per week duty hour limit. No moonlighting of any kind is allowed for trainees on a J1 visa.

RESIDENT WELL-BEING

Program directors and teaching staff will be sensitive to the need for timely provision of confidential counseling and psychological support services to fellows. Training situations that consistently produce undesirable stress on fellows or residents will be evaluated and modified.
Details about the support resources available to all residents/fellows can be found on the Graduate Medical Education web site http://www.med.umn.edu/gme/residents/home.html. These include Needle Sticks and Blood Borne Pathogen Exposure Mgmt instructions, a Dispute Resolution Process, Well-Being Tools, a Resident Assistance Program (RAP) at 651-430-3383, and an on-site consultant (Scott Slattery, Ph.D., at 612-626-7196), among others.

READINGS LISTS (BIBLIOGRAPHY)

Reading lists are prepared for various rotations. Fellows are expected to read
Amato and Russell:  Neuromuscular Disorders
Engel and Franzini-Armstrong: Myology
Dyck and Thomas:  Peripheral Neuropathy
Mendell, Kissel and Cornblath: Diagnosis and Management of Peripheral Nerve Disorders
Mitumoto, Przdebski, Gordon: Amyotrophic Lateral Sclerosis
Engel:  Myasthenia Gravis and Myasthenic Disorders
Dimitru and Amato: Electrodiaostic Medicine
Brown and Bolton: Clinical Electromyography
Levin and Luders:  Comprehensive Neuromuscular Medicine
Preston and Shapiro: Electromyography and Neuromuscular Disorders
Dubowitz:  Muscle Biopsy: a practical approach
Oh:  Color Atlas of Nerve Biopsy Pathology
Brumback and Leech: Color Atlas of Muscle Histochemistry

Neuromuscular Diseases, General

Muscle Pathology
Dubowitz V. Muscle Pathology: A Practical Approach. 2nd Ed. Baillière Tindall, 1985

Nerve Pathology

Electrodiagnosis
Oh, S. Clinical Electromyography. 2nd Ed. Williams & Wilkins, 1993
OTHER EDUCATIONAL RESOURCES TO BE USED

Fellows have at their disposal a learning area in the department, which includes several computers, computer-based teaching tools covering neurology, neuroradiology and pathology, and the most frequently used, up-to-date electronic textbooks. The computers provide Medline searches. In addition, fellows have access to the hospital and biomedical libraries, which include a sizeable collection of neurology journals and classic textbooks.

EVALUATION METHODS - FELLOW

Clinical Competency Committee (CCC)

The program director appoints the Clinical Competency Committee (CCC). At a minimum the CCC is composed of 3 members of the program faculty. Others eligible for appointment to the committee include faculty from other programs and non-physician members of the health care team.

There is a written description of the responsibilities of the CCC, which are:

1. Meet formally on a semi-annual basis, and review all fellow evaluations.

2. Prepare and assure the reporting of Neuromuscular milestones evaluations of each fellow semi-annually, so they can be reported to the ACGME.

3. Advise the program director regarding fellow progress, including promotion, remediation, and dismissal. This aspect may necessitate ad-hoc meetings.

Evaluation by faculty, of faculty, of rotations

Each quarter, fellowship faculty are asked to evaluate each fellow’s performance, via evaluations in the New Innovations RMS web-based system.
Also each quarter, fellows are asked to evaluate the program faculty, as well as the various rotations they have completed.

**Semi-annual meeting with PD**

One of the ACGME program requirements is a meeting between each trainee and the program director on a semi-annual basis.

At these meetings, the PD will review each trainee’s ratings and evaluations submitted by himself and other faculty, through the Clinical Competency Committee. A written evaluation summary will be prepared and signed by both the PD and the trainee.

**360 Degree Evaluation**

Semi-annually, there is a semi-annual “360-degree” assessment of the trainees by the clinic and hospital technical and nursing staff, as well as patients.

**Annual Meetings**

Annually, the Program Director completes a slightly more extensive evaluation of each fellow that summarizes their performance during the full year and indicates whether the fellow is ready to assume increased responsibility or whether he/she has demonstrated sufficient competence to enter Neuromuscular Medicine practice without direct supervision. This summary contains reviews and recommendations from the Clinical Competency Committee.

Also annually, fellows and faculty are encouraged to complete confidential written evaluations of the program itself. These are also scheduled and completed through the New Innovations RMS system. Anonymous, aggregated information from all rotation and program evaluations are used in an ACGME required annual, formal, fellowship evaluation meeting (see PEC section below).

**EVALUATION METHODS – PROGRAM**

**Program Evaluation Committee (PEC)**

The program director must appoint the Program Evaluation Committee (PEC). The committee must be composed of at least two program faculty members and should include at least one fellow; must have a written description of its responsibilities; and should participate actively in:

1. planning, developing, implementing, and evaluating educational activities of the program;
2. reviewing and making recommendations for revision of competency-based curriculum goals and objectives;
3. addressing areas of non-compliance with ACGME standards; and,
4. reviewing the program annually using evaluations of faculty, fellows, and others, as specified below.
The program, through the PEC, must document formal, systematic evaluation of the curriculum at least annually, and is responsible for rendering a written and Annual Program Evaluation (APE).

The program must monitor and track each of the following areas:

- fellow performance;
- faculty development; and,
- progress on the previous year’s action plan(s).

The PEC must prepare a written plan of action to document initiatives to improve performance in one or more of the areas listed in above, as well as delineate how they will be measured and monitored. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

Pass rate results from the American Board of Psychiatry and Neurology (ABPN) certifying examination must be used in the evaluation of the educational effectiveness of the program.

- At least 75 percent of the program’s eligible graduates from the preceding five years who take the ABPN certifying examination in neuromuscular medicine for the first time should pass.

- In those programs with fewer than five graduates over the past five years, at least 50 percent of the graduates who take the ABPN certifying examination in neuromuscular medicine for the first time should pass.
SECTION 6 - ADMINISTRATION

(Please refer to Institution Policy Manual at http://www.med.umn.edu/gme/residents/instpolicyman/home.html for Medical School Policies on the following: GME Administration Contact List, GME Administration by Job Duty; GME Organization Chart)

IMPORTANT PHONE NUMBERS

- HCMC Neurology Office-Cheryl Neel (612) 873-2595
- HCMC clinic (612) 873-2515
- UMMC Neurology Office main line (612) 625-9900
- Pat Bulgerin (Fellowship Coordinator) (612) 625-9110
- MHealth Neurology clinic (612) 626-6688
- Neurology clinic fax line (includes refills) (612) 676-5058
- VA Neurology Admin Office – Thomas Krug (612) 467-2047
- VA Neurology clinic front desk (612) 467-5027

FELLOW CONTACT INFORMATION

Fellows are expected to keep both their program coordinator and the University Payroll department informed of any changes to their contact information. Address and phone number changes for Payroll can be completed online by visiting MyU and selecting the My Info tab. Please update your program coordinator via email or in person.

CONFIRMATION OF RECEIPT OF FELLOWSHIP ADDENDUM

All fellows must complete a form indicating that they have received and reviewed the program manual. The form to complete is on the next page.
By signing this document you are confirming that you have received and reviewed your Fellowship Addendum for this academic year. This policy manual contains policies and procedures pertinent to your training program.

This receipt will be kept in your personnel file.

Fellow Name (Please print) ______________________________________________

Fellow Signature
________________________________________________________

Date __________________

Coordinator Initials ________________

Date __________________

Last updated Jun 2017