



## THE DEPARTMENT OF NEUROLOGY

### Medical Student Neurology Clerkship Rotation

#### Orientation Handout

#### Performance Goals and/or Objectives

- 1.) To be able to perform a competent neurological examination
- 2.) To be able to interpret and recognize common neurological signs
- 3.) To be able to evaluate and treat patients with common neurological disorders.
- 4.) To be familiar with the utilization, advantages, and limitation of common neurological investigative methods.

#### NEUROLOGY CLERKSHIP CLINICAL SKILLS

- 1) History and physical Examination
  - a. Required Skill/Task
    - i. Comprehensive history
    - ii. Complete physical examination
    - iii. Complete neurological examination
    - iv. Mini-mental state examination (MMSE)
- 2) Procedures
  - a. Universal precautions
  - b. Lumbar puncture (observed or preformed)

#### RESPONSIBILITIES

- 1) Each student must complete a Patient Roster listing all patients seen and their age and diagnosis as mandated by the Office of the Dean.
- 2) Each student is required to contact his/her attending and/or resident on the rotation he/she is assigned to immediately following orientation (after Neuro Exam lecture). If for any reason you cannot reach your attending or resident, notify Dr. Erin Furr-Stimming (713-500-7033) or Amanda De La Vega 713-500-

7030 (Room 7.005MSB) immediately. Do not wait until after lunch or after running errands or the next day. Please do this immediately. Your contact is waiting to hear from you.

- 3) Each student must attend the following activities:
- a. Wednesday Neurology Lectures,
  - b. Child Neurology Grand Rounds Conference every Friday morning 8am-9am Room 7.037MSB,
  - c. Neurology Grand Rounds every Friday 12noon Room 2.135MSB
  - d. Any lectures your resident and/or faculty ask you to attend. Please provide a written excuse and explanation of absence if you fail to attend these didactic classes.
  - e. If you fail to attend any of the above lectures 5 points will be deducted from your overall grade at the end of the clerkship.
  - f. The students in the following rotations SHOULD be able to attend Morning report (MSB 7.044 M-Th @ 8am) (please let the resident on service know; notes should be done before Morning report)
    - I. Inpatient General Neurology/ Consults; Pediatric Inpatient Neurology; Stroke; MDAnderson; NSGY; LBJ (if no need to be @ LBJ early)
    - II. Students not required to attend: Pediatric Outpatient, St. Luke's; +/- LBJ
- 4) Each student will report for call as assigned by the attending and/or resident and all clinics as assigned by the attending and/or resident.

#### TIME OFF DURING THE THIRD YEAR NEUROLOGY CLERKSHIP ROTATION

- 1) Holiday: Please be aware that the holiday policy for MS III's and IV's is that holidays, other than those in the designated vacation period, are granted at the discretion of the clerkship director. This applies to all holidays, even Thanksgiving and other UTHSC employee holidays. You may well be given holidays, but it is on a clerkship-by-clerkship, and sometimes, team-by-team basis, however, it is up to your clerkship office, not Student Affairs (Pat Caver). Student and residents usually do not get holidays since hospitals do not close.
- 2) Illness: This is a required four-week rotation and all absence due to illness must be documented in writing with an explanation of the absence and the dates of

absence. The school allows two day off as the maximum time off for illness during a required rotation. More than two days off for illness may require the student to make up the time on weekends or in clinic before the final exam.

- 3) The student may only receive permission to reschedule the final exam from Dr. Margaret McNeese.

## Educational Materials and Conferences

Students will be evaluated by their residents and attending physicians at mid rotation for advice regarding any deficiencies in performance. Students will have to perform a complete neurological examination in front of a resident, and the resident to fill out and sign the appropriate form.

Students on the Memorial Hermann Hospital General Neurology service and Memorial-Hermann Hospital Stroke Service may be asked by the chief resident to prepare cases for presentation before the Chief's rounds. Students rotating through child neurology will be expected to give a 30 minute presentation on a topic chosen during their rotation by the attending physician.

## Evaluation of the Student's Performance

The written examination is purchased from the National Board of Medical Examiners. The examination content will be changed monthly. The student's grade for this rotation will be determined from evaluations of the student's performance prepared by the attending faculty and the residents (60%) and the numerical score from the written final examination (40%). Each student will be evaluated on the performance goals and/or objectives previously listed in this handout and the components of the Student Evaluation form. The following are grade designations:

H-Honors	90 or greater
HP-High Pass	less than 89 but greater than 75
P-Pass	less than 74 but greater than 65
MP-Marginal Performance	less than 60 but greater than 64
F-Fail	less than 59 but greater than 0

A grade of "incomplete" may be forwarded to the Registrar's office if a student fails to complete the requirements of the Clerkship as judged by the faculty advisor, Dr. Furr-Stimming. Students given a designation of "Incomplete" will be expected to fulfill the requirements as soon as possible within two weeks of completion of the Clerkship.

### Remediation of Inadequate Performance

- 1) An overall grade of "Marginal Performance" (MP) with a clinical component evaluation of "Pass" and written examination grade of "Fail" will mandate a repeat of two weeks of a clinical rotation on a Neurology Service and a retest of the Neurology Board Exam. The grade may not exceed "Pass".
- 2) An overall grade of "Marginal Performance" (MP) with a clinical component evaluation of "Fail" and a written examination grade of "Pass" or higher will mandate remediation of an additional two weeks on one of the clinical services and a retest of the Neurology Board Exam. The grade may not exceed "Pass".
- 3) An overall grade of "Fail" will mandate repeating the entire four-week Clerkship and oral re-examination as above. The grade for the four weeks of remediation and oral re-examination may not exceed "Pass".

### **Rotations:**

#### **General Neurology** (MHH - Page Resident)

I. Inpatient team—You will see inpatient neurological patients with everything from seizures and headaches, to serious brain and spinal cord lesions. You will follow a max. of 3-4 patients each, and are responsible to write a SOAP note every morning, before MR (morning report @ 8am). If there is an admission during the day, you can start performing and writing a H/P, think of differential diagnosis, and workup for admission. PLEASE ALWAYS discuss with your upper level, since you will present the case to the attending during rounds. Your team will usually be a PGY2 Neurology resident and/or Psych intern rotator.

II. General Neurology Consult team/Super ER team—You will be part of the consult team, seeing consults in hospital from other services, or the ER. You must attend MR for daily

checkout of overnight consults. With new consults: you can start performing and writing a H/P (on consult triplicate forms), think of DDX, and workup recommended. Please ALWAYS discuss plan with upper level. Discuss with resident if/when you have to follow up on old consults.

**LBJ General Hospital** (Page resident) 5656 Kelly 1<sup>st</sup> Floor Clinic

You will be part of the neurology consultation team. Usually consists of one PGY3/4, and students. You should call and design your schedule with your resident. You usually start seeing patients as consults, perform and write H/P, and discuss with resident. You should follow up on consults as organized by your resident. On Tuesdays and Thursday afternoons, there is a *busy* neurology clinic, where you see a patient by yourself, perform and write a focused H/P, and present case to an attending. You will see variety of pathology and cool neuro exam findings.

**UT MD Anderson** - *Kay Hyde (khyde@mdanderson.org)* should have sent you all an email about where to go and what to do your first day. *Denise LaGrone (dlaGrone@mdanderson.org)*  
Department of Trainee & Alumni Affairs - Unit 165 Phone: (713) 563-9531

You are part of the (busy) neurology consultation team, covering all inpatient and ER consults. (Not primary brain tumors). Your team is a PGY3, a PGY2, and you. You will usually be sent to start seeing patients, perform and write H/P (can make a copy to help resident with dictations), discuss ddx and plan with resident. You should know the patient since you will present the case during rounds. You should follow up on old consults as organized by your team.

**Child Neurology** (MHH-Page Resident) - contact person is: **Nikki Thomason** 713-500-7113

I. Inpatient rotation- Your team is covering pediatric consultations from MHCH and pedER. You will be sent to perform/type (there are templates) H/P, discuss ddx and plan, to present during rounds. Discuss with resident the system to follow up on old consults. Follow up notes are also typed. Please forward these notes to your residents, (to sign) who will then forward to the attendings. You will be asked to present a 30min case presentation on a topic selected by the attending, on Friday Pediatric Neurology Grand Rounds.

II. Outpatient rotation—You will be at HPB 10<sup>th</sup> floor Ped. Neuro clinic daily since 8am (check if patients scheduled). You will start seeing patients, perform/write H/P, and present case directly to the attending. Discuss with him/her the plan. You can use one of these cases or others, to present at Ped. Neuro Grand Rounds, Fridays at 8am, if selected to do so. Please contact the resident to divide students to go to Shriner's hospital, and Dr. Butler's 1960clinic.

**St. Lukes Outpatient Neurology** 6624 Fannin #1550 - contact person is : **Pleshette Hawkins(Hawkins@asneuro.com)**

You will be observing in the outpatient setting, with Dr. \_\_\_\_\_. Please try to examine patients and ask questions to the attending. You will be expected to be able to perform a neurologic exam while switching rotations.

Neurosurgery (Amanda this is all yours.... I think they should report to/follow/help the neuro resident on the NSGY rotation...not the surgeons...ask Erin...?)

**Stroke Service** (MHH - Page Stroke Resident) 5<sup>th</sup> floor Jones 713-704-1836

You will be part of the busy team, consisting of a Stroke fellow, a PGY3, PGY2, and you. See below for usual day in the stroke unit and presentations. You will work as a team, to expedite discharges/ disposition (help your resident, we ALL do scut work together). You will carry a max of 4 patients (this means notes in AM). You are expected to pick up the new patients that were admitted overnight, be familiar with the case, re-assess/examine the patient, and present during rounds to the attending. IF there is something abnormal on examination (you pick up a CHANGE in neuro exam): PLEASE Bump it up the next level(resident, fellow or attending); These patients are critical and change neurologically quickly.

Adapted from **STROKE MANUAL: Acute Stroke Care** by Uchino, Pary, Grotta (\$10) for students—See Samantha Merritt by Blue elevators 7<sup>th</sup> floor

Adapted from a handout compiled by Dawn Matherne, ANP.

- See and write notes on all patients before 0900
- All residents (and medical students) on stroke should be available to go to morning report for checkout at 0800 if possible
- New patients admitted before sign out (5pm)previous night need to be seen and have brief SOAP note written prior to rounds the next morning. Overnight admissions already have admit H&P, but patient still needs to be seen and examined, and if possible, there is with small SOAP note with overnight events. This should help the resident/students to be familiar with patient and to be able to present

**0900** Rounds start in the Conference room outside the Stroke Unit on 5 Jones (or in Stroke Unit, in front of PACS to review radiology) -Pt lists need to be made(printed) before rounds (students can do this.); Attendings will need stickers on all new pts for billing purposes.

**1000** Round in Stroke Unit with multidisciplinary team: PM&R/NeuroRehabilitation, PT/OT/ST, Social Work, Case Management.

Students can gather the charts and clipboards on to the rolling cart for rounds.

The resident/students not currently presenting should have extra order sheets to write orders as you go.

**1200 Noon Conference – MANDATORY!!!!** No excuses except a patient emergency.

May be helpful to let nurses in stroke unit and 3Jones know not to page unless an emergency.

**Afternoon** (hopefully rounds are over) Run the list as a team with the fellow, assign everybody to tasks: orders, discharge paperwork, following up on labs/imaging. Usually, fellow will admit new patients, and see all consults. Assign students every day that will work with fellows for new admissions or consults.

### New patient presentations

Age, sex, *brief* stroke risk factors (HTN, DM, lipids, afib, CHF, CAD, old CVA, known vascular dz)

Time of presentation, last seen normal.

Remainder of HPI.

PMH and Meds. (esp. if pt on antiplatelets, coumadin)

Brief Social (tob, Etoh) and brief FH of CVA.

Pertinent exam: initial NIHSS, initial BP, LOC, speech, pupils, gaze, EOM, VFs, facial symmetry, limb strength, sensory, limb ataxia, neglect, brief reflexes and Babinski; carotid bruit.

Brief EC eval and treatment course:

- CT, ICH volume and score (if ICH), *pertinent positive* labs.
- Decision on tpa/novo 7/clinical trials and why/why not, time given.
- Initial idea on stroke etiology (Ischemic: Embolic, thrombotic, thromboembolic, small vessel, lg vessel; Hemorrhagic: HTN, AVM, aneurysm, CVT, other vascular anomalies ).
- If no tpa, loaded with ASA/Plavix or explain why not.
- If bleed, what are serial coag panels, any blood thinners, FFP or platelets given? Novo7?)

### Old patient presentations:

S: One-sentence summary of the above + 24hrs events (if any neuro changes, CT STAT and know what it shows, signs of arrhythmia, CP, respiratory status).

O: Address BP control over 24hrs.

Tmax, other vitals. (including I/Os with cardiac problem. ICP and ventric drainage if ventric patient, FSBG)

Brief current Neuro Exam. (off sedation if possible)

Labs: MRI/A, CTangio or conventional angio, Echo results, Lipids, HgbA1C, Hypercoag labs if ordered, other major lab abnormalities, including infection. Check CXR and UA if ordered

### **A/P: The Most Important Part!!!**

- Stroke location and etiology.
- Secondary stroke prevention. (ASA/Plavix/Aggrenox, anticoagulation, STATIN, ACEI)
- Risk factor modification (lipids, tob, DM).
- BP parameters and meds.
- GI prophylaxis (every pt, every time!!!).
  - Pepcid or Prevacid or IV Protonix.
  - Colace. (bowel prophylaxis)
- DVT prophylaxis (again, every pt, every time!).
  - Lovenox 40 sc qd. (or renal dose)
  - TEDs/SCDs if within 24 hrs of tpa or 48-72 hrs of ICH.
- Do they really need a foley?

Disposition: Home/family factors, insurance factors, rehab potential.

Have fun learning and **STUDY** as much as you can!!!!