# BROWN NEUROLOGY
## BROWN PHYSICIANS, INC.

# RESIDENT HANDBOOK

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# -ROTATIONS-
# WARDS

**Structure**

| | Vascular Red | Vascular Orange | General |
|---|---|---|---|
| **Patient location** | Bridge Bldg 7 (BB7) | Bridge Bldg 7 (BB7) | Main 7B |
| **Workroom location** | Bridge Bldg 7 (BB7) | Bridge Bldg 7 (BB7) | Main 6B |
| **Patient Overflow** | Main 7B followed by 9A | Main 7B followed by 9A | Main 9A |
| **Team members Mon-Thurs** | 1 Red Attending<br>1 PGY2 Neurology Resident<br>1 PGY1 Medicine Intern<br>1 Stroke Fellow (24 weeks) OR 1 PGY4 Neurology Resident (6 months) | 1 Orange Attending<br>1 Stroke Fellow 6 weeks<br>1 APP | 1 General Attending<br>1 PGY2 Neurology Resident<br>1 PGY1 Medicine Intern<br>1 PGY4 Neurology Resident (6 months) |
| **Fri** | 1 Red Attending<br>1 PGY1 Medicine Intern<br>1 Stroke Fellow 24 weeks) OR 1 PGY4 Neurology Resident (6 months). PGY4 will be pulled to cover Fri when stroke fellow is on | 1 Orange Attending<br>1 Stroke Fellow (6 weeks)<br>1 APP | 1 General Attending<br>1 PGY4 Neurology Resident<br>1 PGY1 Medicine Intern |
| **Saturday** | 1 Red Attending<br>1 PGY1 Medicine Intern<br>1 PGY2 Neurology Resident<br>1 Stroke Fellow (30 weeks)<br>1 APP | | 1 General Attending<br>1 PGY1 Medicine Intern<br>1 PGY2 Neurology Resident |
| **Sunday or Holidays** | 1 Red Attending<br>1 PGY1 Medicine Intern<br>1 PGY2 Neurology Resident<br>1 APP | | 1 General Attending<br>1 PGY1 Medicine Intern<br>1 PGY2 Neurology Resident |

**Documentation**

Please use the Epic smartphrase ".NEUROPROGRESS" for writing progress notes on general and vascular neurology wards. If you cannot find it, one of the neuro residents can share it with you. Please use the stroke navigator for discharge summaries on vascular wards.

**Schedule**

- 6am-8am
  - receive **BRIEF** sign-out from nightfloat (neuro resident, APP, Med A)
  - ensure the white board and epic lists are updated
  - The vascular neuro resident divides up admissions from the last 24 hours between red and orange.
  - Clerkship students get no one more than 1 new patient appropriate to their level of training
  - Pre-round by looking though your patient's charts and checking a brief and pertinent neuro exam on all of them. If you don't have time to see all of your patients, prioritize new and sick ones. The PGY2 should do this for all new and sick intern patients
- 8am-8:45am
  - Morning report, APC 568 – Attendance REQUIRED for neuro residents and students
- 9am-9:15am
  - Multidisciplinary rounds. State ONLY the following:
    - working diagnosis
    - need for PT, OT, speech, social work
    - expected discharge day
    - if can be flagged, specify the unit
- 9:15am-11:45am
  - Rounds. If you are not done discussing and seeing all patients there is likely a flow issue. Attendings must excuse you for noon conference. Please discuss with the program director if there are any issues.
- 12pm-1pm
  - Noon Conference, APC 568 – Attendance REQUIRED for neuro residents and students
- 1pm-2:30pm
  - Afternoon work
- 2:30pm-3:30pm
  - Teaching on wards or NCCU conference on Tues and Fris
- 4:30pm
  - Group signout in BB7 work rookm for ALL IN HOUSE RESIDENTS

**Census**

- Intern and APP each cap at 10 patients total; each can take up to 3 <u>new</u> patients per day
- Neurology PGY2 resident is responsible for over-the-cap (OTC) patients

**Signout**

- Both general and vascular wards teams meet the NCCU, peds neuro, and consult residents for group signout at 4:00pm in BB7 workroom

| **Daytime (6am-4:30pm)** | **Vascular Red Resident** | **Vascular Red Intern** | **Vascular Orange APP** | **General Resident** | **General Intern** |
|---|---|---|---|---|---|
| **After hours (4:30pm-6am)** | **Vascular Organge APP till 9pm then night APP** | **Med A** | **Night APP (starts at 7pm)** | **Call Resident till 9pm then nightfloat resident** | **Med A** |

- If there is no APP that night, the vascular neuro resident signs out in the same fashion as the general neuro resident

**Long-term monitoring epilepsy patients (LTM)**

- Most weeks (typically Monday AM), 1-2 patients are directly admitted to the LTM unit on 6B
- A full H&P must be written on admission and progress notes on subsequent days, which cannot be copied from the attending's note.
- These patients are staffed daily with set attendings from the epilepsy group rather than the on service general wards attending
- PGY2 residents will sign these patients out to the neurology on-call resident who will sign out to the nightfloat

**Rotation Expectations**

- Review patient sign out and rotation guide prior to starting
- Make sure to have someone on the team observe you do a neurological exam
- Examine and review vitals, meds, results daily on each of your patients
- You are not expected to do a comprehensive neuro exam every day. It's inefficient and often irrelevant to the patient's chief complaint. a full neuro exam is always done by the admitting neurology resident before you've seen them and should serve as a reference for your own to see if the patient's better or worse the next day. if you're not sure what the most important things to check on someone's exam are, check what was abnormal on the admitting H/P or ask someone on the team

- Both results and assessment/plan should be updated daily. Do no use these sections to include the entire hospital course, that belongs in the hospital course of the discharge summary which you should update frequently to make the discharge process easier
- Run the list with your intern prior to noon conference
- You are not responsible for admitting any patients during the day. If the consult team is busy and the patient being directly admitted to your service from another service or outside hospital, they may ask you to admit the patient
- Patients newly admitted during the day by consult residents are managed by the consult team until they are signed out the next morning
- **General ward neurology PGY2 is solely responsible for all LTM patients**
- Use the stroke navigator when on the vascular service
- Check with the attendings regarding need for clinic follow up

**PGY2 Expectations**

- Direct supervision of intern. Review the intern patients' chart as if they were your own. This includes the neurological exam, vitals, labs, overnight events, notes, orders, DVT prophylaxis, diet, need for tele, discharge summaries. Ensure the intern's notes are accurate including discharge summaries prior to the patient leaving. Use your judgement to determine when you can transition from direct to indirect supervision of your intern. This will depend on your own level of comfort and that of your intern. Please let them know when you are comfortable making that transition and to what degree to set expectations. Remember that when an intern makes a mistake, it is because they are not adequately supervised
- You should not supervise the APPs. They will make decisions regarding their patients appropriate to their level of comfort. However be available for questions they may have.
- When the service is busy and the PGY2 is carrying more than 5 over the caps, they should discuss with the chief/fellow about focusing on their own patients while the chief/fellow supervises the intern and is available as a resource to the APPs. In such instances, the PGY2 should get sign out regarding those patients from the chief/fellow at the end of the day to ensure continuity of care
- Have juniors practice presenting patients to you before rounds when time permits

**Chief/Fellow**

- Acts as the attending in that all patients are presented to them, they go over imaging, teach, and lead rounds. You should think of this as **YOUR SERVICE** with the attending guiding you. **If you are not leading rounds most days when you are on service and are acting more like a junior resident, please let the program directors know.**

- When meeting a patient/family, the chief/fellow should acknowledge the presence of the attending to ensure patients know the attending is providing direct supervision
- Remain on the team you are assigned to the entire week, don't go back and forth between general and vascular
- Directly responsible for overseeing the PGY2's management of the intern for the first 2 weeks the PGY2 rotate on the wards. After that, they should be available as a resource to the PGY2 and allow them to act as the intern's supervisor.
- Use your judgement depending on the complexity of the case and how busy the day is to allow the PGY2 to lead part or all of rounds. This should be happening frequently in the second part of the year when you have become experienced leading rounds.
- Ensure the PGY2 makes it to all didactics and support them if emergent clinical care is keeping them from making it to conference
- On Fridays when the PGY4 resiterns, they will have the same role as the PGY2 resident that was on Mon-Thurs.

**Tips**

- While a person is presenting their patients on rounds, another person should be helping them out by putting in orders in real time. This saves time so that all the orders don't have to be put in after rounds
- Case managers are your best friends. Keep them informed and happy to ensure smooth flow of patients.
- Even if you know someone won't be discharged that day when you discuss them at interdisciplinary rounds, let the case managers know when you expect them to be discharged so they can start working on them
- Always discuss use, type, and timing of blood thinners with the attending. Make sure to specify start/stop dates in both the hospital course and the comments section under medication's name in the discharge summary
- Ask yourself if tests need to be done in house or whether they can be done as an outpatient
- Always set expectations regarding length of stay and inpatient treatment goals with patients and families to minimize issues down the road
- Ensure PT/OT evals have been completed and the case managers know their recommendations
- Speak with your interns, APPs, and med students regarding the schedule for the week and weekend so you can anticipate and possibly rearrange scanty coverage during clinic and other times of anticipated absences
- discharge summaries are a lot more efficient if you update the hospital course daily or at

least periodically.

**How are the Orange and Vascular Red services different?**

- orange is NOT a nonteaching service, it will have students and fellows rotate on it and will have complex vascular neuro pts just like red
- all escape pts go to orange whenever possible and all medically complex patients (not in a stroke way ) go to red whenever possible
- all new pts/transfers placed on the red epic list overnight and are managed by the consult team as usual. In the morning, between 6-8am the red residents will distribute news/transfers between red and orange
- once orange gets 10 pts (hard cap) all news go to red
- APP absorbed into red team on weekends, holidays, or when a second attending isn't available
- When there is no orange vascular attending, the red attending will still see the TIA unit pts and will be available for consults/code strokes if their time allows
- cannot admit news to a capped service until pts fall off the list on epic. Stable patients, CMO patients, and anticipated discharges count as currently admitted pts
- no more than 3 news patients/day for each intern or APP
- No more than 2 students of any kind should be on either service
- Orange team gets priority for both wows since they have no dedicated room to round in
- APP goes first on interdisciplinary rounds
- APP goes first when there is only one attending on
- Pts should not get transferred between the 2 services mid-admission

**Orange Attending Schedule**

| Day | Time Slot | Attending Responsibility |
|---|---|---|
| **Mon-Fri** | 08:00-09:00 | Staff TIA unit (1-2 pts) |
| | 09:00-09:15 | interdisciplinary rounds on BB7 |
| | 09:15-11:00 | rounds with APP (10 pts max) |
| | 11:00-12:00 | Check in with consult chief to see if any stroke consults need to be staffed. See with learner when possible. Consult residents still primarily responsible for patient |
| | 12:00-16:30 | • available to staff new stroke consults/code strokes. Last new consult at 3:30pm<br>• cover clinic issues for out of office attendings, push bubbles in U/S lab,<br>Staff fellow clinic on Wed |

| | | |
|---|---|---|
| | | (except when NCCU attending is on) |
| | 16:30-08:00 | Receive URGENT calls about old orange pts from in house APP. Tuck in your pts and create contingency plans to minimize night calls. Calls about new pts go to red attending |
| **Sat-Sun + holidays** | | Sign out to red attending Fri 16:30 |

# CONSULTS

| | | |
|---|---|---|
| **Rounding Space** | APC 5 Main Conference Room | |
| **Weekday Team Members** | 1 Consult attending<br>1 PGY 4 neurology chief resident<br>3 junior neurology residents<br>Consult 1: 7am - 5pm<br>Consult 2: 11am - 9pm<br>Consult 3: 2pm - 12am<br>medicine/psych interns<br>MD/PA students | |
| **Weekday Schedule** | **Time** | **Activity** |
| | 7:00am | nightfloat signs out to chief and hands off pager |
| | 8:00am-8:45am | morning report |
| | 8:45am – 12:00am | nightfloat presents overnight consults to attending<br>see some consults with attending if time permits<br>chief gives out new consults and follow ups |
| | 12:00pm-1:00pm | noon conference |
| | 1:00pm-4:30pm | round with attending and see news/follow ups |
| | 4:30pm | Group signout on BB7. Chief hands pager and signs out to on call resident |

**Structure**

- Please only use the resident lounge for consult rounds if the conference room is occupied
- The consult chief is available for questions at all times except Sat (24 hours) and Sun until 4:30pm. At these times, the chief is off and the junior residents must call the on call attending directly
- Code strokes are **only** seen by neurology residents
- Consults are only seen at RIH and Women & Infants. Hasbro consults are done by the peds neuro resident. Please see the peds neuro rotation for details
- For consults after hours, please see the **How to…** and **nightfloat** sections

**Expectations**

- All consults should be seen in a timely manner with the most acute patients being seen first
- All residents MUST leave the hospital at the end of their shift. Do not take new consults that you do not think you can finish by the end of your shift. Time to wrap up notes and orders should be accounted for. Passing on consults to the incoming resident is an expectation and should not be something that only happens when things are busy.
- PGY2s must call a chief/fellow/attending to discuss every consult
- Residents of all levels of training must call attendings for all send outs from the ED. Consult attending during the day. General or Vascular attending at night depending on which service the patient would otherwise be admitted to. **Don't order tests on patients you haven't seen.**
- If you are asked to see a consult that you think is not necessary, you can explain your reasoning to the consulting team and offer another plan such as a clinic appointment. However if the team still wants the consult, you may not refuse it.
- If you receive an urgent consult near the end of your shift, make sure the patient is stable and initiate any time sensitive management. Let the chief or incoming resident know so they can relieve you once they get there. You must not stay beyond your shift to wrap up urgent consults provided there is a resident available to relieve you. It's ok to start these consults and have someone else wrap them up.
- Avoid starting nonurgent consults that you will not have time to finish before the end of your shift
- If time permits, ask the attending to observe you perform a consult in its entirety and/or the neuro exam on a patient at least once during the week.
- Always set the consulting team's expectations regarding when the consult will be seen to avoid call backs and frustration on both ends.
- After the attending has seen the patient, be sure to document whether this patient needs in house or outpatient follow up. If so, note which clinic, the timeframe, and contact info.
- If peds calls with a consult or question, direct them to the peds neuro consult resident from 8:00am-4:30pm Mon-Fri. Outside of those times they must call the peds neuro attending directly who may then ask you to see that patient. You cannot see a peds patient or curbside without a minimum of indirect supervision from the peds neuro attending who is informed about that case.

**Chief Role**

- Return all pages promptly
- Find a convenient time during the day to discuss pending send outs with the consult attending
- Give rotators view access to the consult list and remove them once they come off service

- Lead rounds including demonstrating exams on patients, counseling, and imaging interpretation. This is **YOUR SERVICE** and the attending is there to guide you
- It is **ALWAYS** okay to call the attending 24/7. However as a PGY4, you should have a preliminary plan when calling to discuss.
- Consults given to students should be paired with a resident so the resident can write the billable note for the attending to sign and appropriately supervise the student. The student should write their own separate note
- **DO** use students and interns to see new consults that you think are safe to wait to be staffed by the attending.
- **DO NOT pull residents out of didactics for nonurgent consults simply to help with work flow**. Non urgent consults can wait
- **AVOID** sending students and interns to chart review on old patients, re-examine them, and write a note for patients that were seen the previous night and you plan on seeing with the attending later that day. This is an inefficient use of the team.
- Delegate consults appropriate to a resident's/student's proficiency and efficiency
- Discuss feedback for your team members with the attending and then deliver it
- Update the left BB7 white board for overnight follow ups/FYISs, update the right BB7 white board with consults to be staffed by the attending on the weekends (see White Boards section)

**Tips**

- When there are multiple consults pending and you have no help, identify who the sickest patients are and evaluate them as efficiently as possible. Triaging is a skill that takes time to build. Talk to a senior if you are having trouble
- If time permits, write the HPI and exam prior to presenting your consult case to the chief or attending - this will help to make your presentation clear and concise.
- When performing chart review prior to seeing a consult, it is helpful to start pre-writing your note and incorporating pertinent history and hospital course thus far prior to your evaluation
- After seeing a patient, jot the exam into your incomplete note or on a paper before you forget it.
- You should finish writing each note before moving on to the next patient assuming your next patient is stable. Otherwise you may be writing 10 consult notes at the end of a 24 hour shift and it will take you twice as long to do when you're tired.
- Goal should be to read about patient, evaluate them, place orders and finish the note in 1-1.5 hours
- If another service refuses to take a patient onto their service, have them contact your attending directly

# Neurocritical Care Unit (NCCU)

**Structure**

- 2 teams each covering 9 patients for a total of 18 patients
- GREEN team has: 1 NCC attending, 1 PGY2 neurology resident and 1 NCC APP. The NCC/Stroke Clinical Pharmacist is also often on this team.
- BLUE team has: 1 NCC attending and 2 NCC APPs. Other rotators may also be on this team.
- Other rotators such as neurosurgery residents, pulmonary/critical care fellows, surgical critical care fellows, medical students, APP students, or pharmacy students may also be on either team.
- Each NCC resident or APP typically carries up to 4-5 patients regardless of whether the problem is primarily neurological or neurosurgical. On occasion there will be more or less depending on rotators or staffing issues.
- Overnight, the NCCU is covered directly by 2 NCC APPs. The neurology consult or night float resident is contacted with neurological questions as needed. The most common question involves interpreting an EEG.

**Workflow**

- 6:30am-8am: Get signout from overnight APPs and Pre-round
- 8am-9am: Morning report - REQUIRED
- 9am-11:45am: attending rounds
- 12pm-1pm: Noon Conference - REQUIRED
- 1pm-3:30pm: Afternoon work
- 2:30pm-3:30pm: (Tuesdays and Fridays): NCC conference
- 3:30pm: NCC signout
- 4pm: bed flow rounds

**Expectations**

- The NCC neurology resident is on service Monday through Saturday. On Sundays, the NCC PGY2 has the day off and an off service PGY2 or 3 covers for him or her.
- The NCC resident is considered a full member of the team with equal role and equal responsibilities to the NCC APP. Each team member, based upon different backgrounds, will bring different skill sets and knowledge base. It is expected that all members of the team will treat each other as equals, provide or request assistance as needed, and work together.
- No daily progress note is necessary. For pre-rounding, all pertinent data must be collected

(writing it down only if needed), interpreted and acted upon when appropriate. Communicate with nurses to identify any issues from their perspective. Examine all patients. Anticipate trouble and make sure to prioritize patients for whom you have concerns. Also identify any potential flags as turnover is often rapid and beds are likely to be needed for new admissions.

- On rounds, present the HPI (new patients only), 24-hour events, vitals and other data, and labs*. Meds will be presented by pharmacy if present. Imaging will be reviewed together. The patient will then be examined together with the team. You will then present the diagnosis, assessment, and plan based upon a detailed organ system approach. This is the period during which the majority of teaching will happen.

  *There is a considerable amount of data to be presented. This is neither fun nor glamorous but must be done for the patient's sake. To make this process faster and easier, present it in the pre-determined order and be able to come up with all the information quickly (either write it down ahead of time or know exactly where to find it on the computer). Any time saved during data presentation will be available for teaching. Conversely, any time lost here will take from teaching.

- During rounds, the non-presenting APP or resident typically writes orders for the presenting APP or resident. Since things occasionally get missed, this should be double-checked afterwards.
- After rounds, you will follow up on any pending labs, imaging, or consults, maintain communication with nursing, re-examine patients as needed, and complete general work of the unit including ensuring that patient orders match the plan of the day from rounds. If procedures (central or arterial lines, intubations) are needed and you are interested, you may be able to participate, though this is not required. You will be responsible for lumbar punctures on your patients.
- For any substantial events, event notes should be written.
- The Hospital Course shared document and NCC signout should be updated daily.
- You are the direct liaison with the family and will be expected to eventually lead family meetings in conjunction with the attending.
- You are expected to be on the unit unless specifically needed elsewhere for residency duties. If something happens with one of your patients, or a consultant comes, etc., you will not be tracked down.
- In rare instances, the NCC attending and NCC PGY2 will be the primary neurology consultants for NCC patients boarding in other ICUs due to lack of beds in the NCCU. This will be determined by the NCCU attending

**Admitting to the NCCU**

- Neurology admissions to the NCCU from the ED follow the usual consult / night float admission process. Cases are staffed by the chief resident. If there are any questions or concerns, the NCC on-call attending should be contacted.
- Once an admission is identified, contact the NCC Resource APP (350-4960 or call the unit) to request a bed and give detailed sign out.
- Admission note and orders need to be completed before patient arrives to the NCCU. If this cannot happen for any reason, the verbal sign out to the APP prior to arrival becomes even more critical.
- Direct neurology admissions to NCCU from outside hospitals are admitted by the NCCU resident during the day or the consult or night float resident at night.
- Transfers from other neurology services or from the consult service should be signed out to the NCC resident or APP who will then assume care for them. A meaningful transfer note should be written with an updated neurological exam and plan.

**Transferring out of the NCCU**

- **Process in NCCU (NCCU APP or resident):**
    - Write transfer order in EPIC for patient to either general (7b) or vascular (BB7) neurology
    - Write transfer note
    - Ensure orders are appropriate for plan of care and floor level of care (adjust neuro check and vital sign frequency, remove ICU protocols, etc.)
    - Drag patient to appropriate list in EPIC
    - Write name on white board in stroke unit work room (there is a list for both vascular and general neurology patients)
    - Give verbal sign out to appropriate resident on call (call service pager to find the appropriate resident)
    - Document on NCCU signout that the patient is flagged and with whom you spoke
    - **If the patient has not transferred overnight and is still in the NCCU by the time of morning rounds (8am weekends, 9am weekdays), then the NCCU team rounds on him/her again, the transfer note gets updated with any new events, and repeat sign out is provided to the neurology resident
- **Process on wards:**
    - Vascular Neurology (VN) or General Neurology (GN) resident provides signout to overnight or appropriate covering resident
    - If the covering / receiving resident needs a refresher or further info on the patient once they move, especially if delayed, he/she should contact the NCCU Resource APP
    - Upon learning of NCCU transfer, VN or GN resident receiving report should ensure the patient has been moved to correct list
    - Receiving resident should update Neuro sign out

- These patients are managed by neurology residents **only** (as opposed to intern) until rounded on the next day

- If the receiving team is not neurology but the patient needs neurology consultation, sign out the patient to the neurology consult service and add to their list.

# PEDIATRIC NEUROLOGY

**Structure**

- 1 attending, 1-2 Neurology residents, medical students at times
- this is a daytime Mon-Fri rotation. Overnight and weekend consults typically wait till a weekday. If an after-hours consult is urgent, the **peds team must call the peds neuro attending directly**. The peds neuro attending will either provide recommendations over the phone or ask the in house neurology consult resident to see the patient and then discuss with them
- Patients are discharged, admitted to the pediatric hospitalist team, other pediatric team or PICU. You are never the primary provider for the patient

**Schedule**

- 8am-8:15am: receive pages from peds teams regarding patients that came in overnight and need to be seen that day. Take the peds neuro pager from the last resident if it's your first day on service.
- 8:15am-8:45am: Morning Report
- 9am-11:45am: see consults and follows, attending may round with you in the morning or afternoon depending their schedule
- 12pm-1pm: Noon Conference
- 1pm-4:30pm: see consults and follows, attending may round with you in the morning or afternoon depending their schedule
- 4:30pm: sign out in BB7 work room

**Expectations**

- Resident carries the pediatric neurology pager from 8am-4:30pm and is responsible for Hasbro ED, pediatric code stroke, Hasbro floor consults along with W&I NICU consults
- When the peds neuro resident is in clinic. The adult consult resident will cover code strokes.
- When in Thursday resident clinic, call operator and sign pager out to the attending during your clinic hours (only when you don't have 2 residents on peds)
- All consults must be staffed directly with the peds neuro attending the same day
- The peds team manages ALL orders, day-to-day management, daily progress notes, and discharges patients. The neuro resident only acts as a consultant
- You are not expected to physically pre-round on follow up patients, but you should know their history and current presentation
- Peds writes H&P's for admitted patients; you must still write a consult note unless told

otherwise by the attending

- The need for follow up consult notes for a particular patient should be discussed with the peds neuro attending
- Calls from outside pediatricians need to be discussed with the attending before providing recommendations
- When you discuss a patient with the peds neuro attending, anticipate questions specific to that case and discuss contingency plans directly with the peds team. You should also document the contingency plan in your note. This will help your work flow. Common questions include:
    - Are we making any dose changes to any antiepileptics?
    - Are we continuing EEG overnight/over the weekend?
    - What should we do if the EEG leads fall off? Keep them off or call in techs to put them back on?
    - What should we do if they have another seizure?
    - When can they be discharged and does the peds neuro team need to be notified?
    - When will you be available to answer the family's questions?
    - When are you going to round on the patient?
    - When do they need clinic follow up (if at all)?
    - What neurological changes can be expected to develop and should not be concerning?
    - Do we need to get antiepileptic levels?
    - Do we need daily labs?
    - What clinical changes require acute brain imaging and should it be a CT or MRI?
    - Should we call acutely if the patient has a seizure?

# Night Float

**Structure**

- Saturday – Thursday (Fri night is off and covered by an off-service resident)
- 1 PGY3 Neurology resident for 1st half of the year
- 1 PGY2 Neurology resident for 2nd half of the year
- Arrive at 8:45pm. Pick up pager form consult 3 resident. Receive sign out from all in house neurology residents (on call, consult 2, consult 3) in BB7 work room
- carry pager until 7:45am at which point you pass it on to the chief on weekdays or the on call resident on weekends
- Go to morning report from 8am-8:45am
- Discuss and see your overnight consults with the consult attending and leave by 10am at the latest

**Expectations & Tips**

- Night float resident covers over the cap general neuro patients and serves as back up for all in house providers covering the other neuro patients. If there is no nightlfloat APP on a particular day, the neurology night float resident will cover their patients.
- Overnight, staff with Chief Resident except for Saturday nights where you call the neurology attending specific to a case (NCCU, vascular, or general neurology)
- Please see consults rotation for everything else

# Resident Continuity Clinic

**Structure**

- One half day every Thursday during one of these slots:
  - AM Clinic: 9am – 12pm
  - PM Clinic: 1pm – 4:30pm
- Up to 6 patients per clinic (PGY2s start with 4)
- 1 new (1 hour), 1 ED/inpatient new (30 min) and 4 follow up's (15 min). Despite the short time for follow ups, the no show rate is high and co residents can help each other out if things can busy
- If you are on wards or NCCU, your clinic will be in the afternoon
- Consult 2 (11am-9pm) has clinic on Thursday morning (starting at 9am)
- Consult 3 (2 pm -12: 00 am) will have clinic on Thursday afternoon
- If you are the wards resident, sign out your patients to the neuro resident on the other wards team i.e general if you're on vascular or vice versa
- Single covered peds neuro has Thurs am resident continuity clinic
- There will be several occasions throughout the year when a full day clinic (both morning and afternoon sessions) is scheduled. This is to satisfy the required number of clinics per year.

**Expectations**

- Interns also have weekly clinic, and they should sign out their patients to the other intern as well as to you on the wards. Ensure that the covering intern has an updated paper copy of your team's signout. When the intern on one of the inpatient services has clinic, the intern on the other inpatient service will be on call that day
- When starting on wards – talk with your intern the first day to find out when their clinic day is to ensure there is no mix up about coverage
- Take patient from waiting room and bring them to room when they arrive, and walk them to check out when you are done. Let the medical assistant at the front know when they need follow up and what tests have to be ordered if any to make the plan clear to them and your patient
- Staff with clinic attendings to devise a plan. They may or may not see every patient with you depending on the complexity
- Ask that an attending observe one of your clinic encounters from start finish on days when it's not busy
- Check your clinic schedule routinely at the beginning of the week to ensure there are no errors

- When switching calls or rotation assignments or taking days off, please be mindful of your Thursday clinic commitments. You should ask the clinic chief resident if you have questions.
- If you need to reschedule your clinic, you must let the staff know early to reschedule your patients. If it's too late to reschedule your patients, it is your responsibility to find coverage by asking one of the other residents to cover for you
- Send a copy of your note to the primary care. The easiest way to do this is highlight your note in epic and click the route button. Make sure the medical assistants update the patient's primary care in Epic with their fax number so that this is possible
- If you receive correspondence from lawyers or others seeking medical records, please pass these on to the clinic nurse or clinic manager.
- If you receive other paperwork such as disability questionaires, discuss with your preceptors how to fill out (or not fill out) these forms for the particular patient.
- The Neurology Clinic does not routinely endorse the State of RI medical marijuana applications
- The Neurology Clinic does not have a mechanism to prescribe and monitor long term opioids for pain management.

## Phone Coverage

- For patients of the neurology resident clinic, the patient's primary neurologist should be the first point of contact during business hours (Monday-Friday, 8 AM-4:30 PM) unless the resident is on vacation, night float, or an away elective. During in-house or local electives, the neurology resident should be reachable during the day. Neurology residents should notify the clinic of planned away elective time, so pages can be directed appropriately. Please refer to the schedule on MedRez for the most up-to-date neurology resident schedule.
- If the neurology resident is away or on vacation, then the Wards Chief should be responsible for covering patients of the resident who is unavailable. The on call wards chief can be found by looking at MedRez
- After hours (4:30 PM -8 AM), or on weekends, the neurology call pager (401-350-0795) receives all urgent pages for neurology resident clinic pages. The on-call neurology resident is responsible for fielding emergent patient calls including but not limited to requests for refills (eg., patient ran out of seizure medications), medication reactions or side effects, or any other questions or symptoms which need to be addressed. Any calls from an attending's patient should be directed to the on call general neurologist by the operator.

## Tips

- You can look your patients and pre write your notes in Epic

  arrival at the appointment. When patients no-show (which happens frequently) open encounters creates a problem for the staff.

  - Not every patient needs an in person follow up. Many patients can be given your card and asked to call as needed to discuss issues with you and then you can ask that an appointment be scheduled for them depending on the issue
  - Pick one day in the week to routinely follow up on your clinic patients' results and clear your Epic inbox. This prevents build up of material in your inbox and ensures timely communications with your patients
  - When you see a patient, set expectations about:
    - ▫ Goals of today's appointment
    - ▫ Whether they need a follow up appointment and why
    - ▫ When they should come to the ER. This is especially important for people with migraine or epilepsy
    - ▫ When you will be calling them with results
    - ▫ Whether they need a follow up appointment, when it should happen, and what you will accomplish at that visit
  - Be sure to document everything for your patients in the after visit summary that will be printed for them. This is important as patients often will come alone and may not remember or be unable to communicate your recommendations to their family members/care takers
  - If someone comes from a nursing home, rehab, or other facility with a carbon copy paper asking for your recommendations to be written down, you can simply print our your entire clinic note instead. This is more legible, professional, and avoids the redundancy of having to repeat your recommendations from your note.

# EEG

**Structure**

- 1 EEG attending, 1 fellow, 1 resident
- EEG techs come intermittently and update the list of inpatient/outpatient for review
- Attempt to read EEGs in the AM and review your attempts with fellow. If adequate, present to attending in the afternoon.

**Schedule**

- 8am-9 AM: morning report, APC 5
- 9am-12pm: review EEGs with fellow, EEG lab at APC 6
- 12pm-1pm: Noon conference, APC 5
- 1pm-4:30pm: review EEGs with attending, EEG lab at APC 6
- Thursdays: ½ day resident continuity

**Clinic Goals (ACGME Milestones)**

- Describe EEG in objective and standardized terms
- Recognize normal EEG and its variants
- Describe normal EEG features of wake and sleep state
- Recognize common EEG artifacts
- Interprets common EEG abnormalities
- Interpret uncommon EEG abnormalities
- Recognize EEG patterns of status epilepticus
- Describe normal and some abnormal EEG features of wake and sleep states in children

**Resource**

- AAN - Interpretation of the Normal Adult EEG: Normal Patterns and Common Artifacts (Free)

# Neuromuscular/EMG

Welcome to EMG rotation! Please see the link below to for the rotation guide

**https://sites.google.com/view/brownemgcurriculum/**

# Psychiatry

**Overview of the Rotation**

- This required rotation is completed during four weeks of the PGY-4 year and fulfills the ACGME requirement for psychiatry.
- The focus of this rotation is on inpatient consult and liaison psychiatry.
- As a consult resident, you will be assigned new and follow-up psychiatry consults on patients who are hospitalized under the primary care of medical or surgical services.

**Structure of the Rotation**

- On the first day, you will be given a brief introduction by the psychiatry team. Please page Jim Badger on your first day of the rotation to find out where to meet.
- The rotation schedule is from Monday-Friday, 8:00 AM - 4:30 PM.
- The psychiatry department secretary, fellow, or nurse practitioner will page you and assign you to see consults throughout the day. When you are given a consult, you will be informed of which attending you will be staffing the case with. In general, one attending covers the morning and one attending covers the afternoon.
- After seeing a consult, present to the attending shortly after you finish seeing the patient.
- Breaks from the schedule
  - Morning report: 8 AM - 9 AM
  - Noon conference 12 PM -1 PM
  - Continuity clinic - Thursday morning or afternoon

**Goals**

- Diagnose and manage neurobehavioral disorders
- Obtain an appropriate psychiatric history
- Be able to recognize when a patient has a psychiatric disorder
- Identify psychiatric comorbidities of neurologic disease (eg., depression and anxiety in dementia or traumatic brain injury)
- Recognize when psychiatric symptoms are of neurologic origin (such is the case in autoimmune encephalitis)
- Recognize when neurologic symptoms are of psychiatric origin (such is the case in conversion disorder)
- Identify side effects of psychiatric medications
- Engage in self-directed learning and reviewing the pertinent literature regarding assigned patients

**Recommended reading**

- Adam and Victor's Principles of Neurology, 9th ed, Chapter 56-58, Psychiatric Disorders
- Essential Psychopharmacology, 2nd ed, Stahl
- DSM-V

# Neuropathology

**Schedule**:
Generally runs Monday-Friday from 8 AM to approximately 3-4 PM. Depending on the day of the week, there are various conferences involving neurology, pathology, radiology and neurosurgery which the resident may attend. Please always defer to the pathology attending for the final outline of the schedule for the week.

- **Monday:** 8 AM - 9 AM Neuro resident conference in APC 5; 9:00 -10:30 AM Neurosurgery Grand Rounds in the George Auditorium; 12 PM - 1 PM Noon Conference in APC 5; 2 PM Signout in POB 322
- **Tuesday**: 8 AM - 9 AM Neuro resident conference in APC 5; 10:00-11:00 AM Neuropathology Consensus Conference in POB 322; 12 PM - 1 PM Noon Conference in APC 5; 2 PM Signout in POB 322 *please check with neuropathologist to see if there is brain cutting.
- **Wednesday**: 8 AM - 9:30 Neurology Grand Rounds in the George Auditorium; 12:00 - 1 PM Neuroradiology Conference; 1:00 -2:00 PM Memory Clinic meeting in APC 133; 2 PM Neuropathology Signout in POB 322. *Please check to see if forensic brain cutting is occurring the day before with the neuropathologist
- **Thursday**: 8 AM - 9 AM Morning Neurology Conference in APC 5; 9 AM -12 PM Neurology Resident Continuity Clinic APC 5; 2:00 PM Pathology Signout in POB 322
- **Friday**: 8 AM - 9 AM Morning Neurology Conference in APC 5; 12:00 PM - 1 PM Either Neuro Resident Noon Conference in APC 5 OR Tumor Board in the Cancer Center 1st floor Conference Room; 2:00 PM Pathology Signout in POB 322 *please check to see if there is brain cutting with the neuropathologist

**Making the Most of the Rotation**
There is a significant amount of downtime. Being self-directed with learning and reading is the best way to make the most of this rotation.

**Recommended Reading:**
- Gray F. er al. Escarolle and Poirier's Basic Neuropathology and Modern Surgical Neuropathology
- Ellision, D. et al. Neuropathology: A Reference text of CNS Pathology
- clinicalkey.com or under clinic resources in Epic. Includes access to several books including Prayson’s Neuropathology

# VAMC (VA Medical Center)

**Structure:**
PGY-4 neurology residents provide both outpatient and inpatient care at the Providence VAMC. The rotation consists primarily of outpatient clinic on the **5th floor of the VAMC**.

Subspecialty outpatient clinics at the VA include:

- Traumatic Brain Injury (Dr. Mernoff)
- Movement Disorders (Dr. Chang)
- ALS (Dr. Mernoff)
- EMG (Dr. Berger)
- Botox (Dr. Chang)

You will also see general neurology patients in clinic and a few inpatient consults/week. Stroke patients are transferred to RIH if they are complex or need acute treatment.

**Schedule:**
The schedules are prepared by Dr. Stephen Mernoff, the Chief of Neurology at the Providence VAMC. Clinic is held Monday through Friday and typically starts at 9am (except on Wednesdays, to accommodate for attendance at RIH Neurology Grand Rounds). On the first day, you should expect to get there earlier (8:30am) to go over scheduling and expectations with the attending. There is a break from 12-1pm allotted for lunch, and then afternoon clinics generally start at 1pm.

The VA resident is expected to attend Neurology Grand Rounds at RIH weekly on Wed at 8am. The resident is otherwise excused from morning report and noon conference at RIH while rotating at the VA. They are also welcome to call in using **Zoom** and can ask the lecturer to enable it.

**Expectations:**

- See new and follow-up patients in clinic, take a full history and perform an exam, then staff the case with the attending
- Rotate through specialty multidisciplinary clinics such as the ALS clinic, where patients are seen by multiple providers at once in a group setting.
- Teach medical students that complete their Neurology rotations at the VA.
- Consult on inpatients and staff the cases with an attending who is in-house. Generally you will then see the patient at bedside with the attending.
- Facilitate transfers to RIH by discussing with the on call resident of chief, as appropriate.

**Preparing for your rotation at the VA:**

- At least one month prior to your first VA rotation, it is important that you contact Jennifer Koziol (401-273-7100 x3579, email Jennifer.Koziol@va.gov) to make sure

that your VA online training, computer login, and identification card are up-to-date. Even if you worked at the VAMC as an intern, the badges, fingerprints, and computer logins may expire and will need to be reissued.

- You will be using the VA EMR program, CPRS. If you have never used CPRS before your PGY-4 year, please mention this to Jennifer Koziol when you contact her to set up your computer access and identification.
- A few weeks before your VA rotation, please reach out to Dr. Mernoff (Stephen.Mernoff@va.gov), so he can appropriately schedule you for the VA.

**Logistics:**

- Residents are expected to arrange their own transportation
- Address:

  **830 Chalkstone**
  **Avenue Providence,**
  **RI 02908**

- You can enter through the ER at the front of the main building, then follow signs to main elevators and go up to the 5th floor. Once you exit the elevators, if you face the window the clinic will be on your right.
- Parking at the VA can be difficult to find. You can park in the employee lots, but do not park in the patient/ visitor areas. It is recommended that you arrive at least 30-40 minutes before your clinic starts to look for parking. There is a playground/ ball field off of Chalkstone Ave, next door to the VA hospital, where parking can sometimes be found after the hospital parking lots fill up.
- There is a kitchen/ breakroom behind the receptionist's desk in the 5th floor clinic. There is a fridge and microwave available if you choose to bring lunch.

# ELECTIVE

- Elective plans should be discussed at the semi annual meeting with the program directors
- Each elective will be associated with an online evaluation sent to a supervising faculty member where applicable
- All external electives must be approved by the program director

# -HOW TO…-

# DO WEEKDAY CALL

**Structure**

- Monday-Thursday, 4:30pm – 9pm
- The 4 days of the week are divided up between the vascular wards PGY2, general wards PGY2, ICU PGY2, resident on elective, pediatric neurology resident, EMG resident
- contact the consult chief to pick up the pager at 4:15pm
- Meet on BB7 at 4:30pm to get sign out on general wards, vascular wards, NCCU, and pediatric neuro patients
- The day call resident will hold the pager and return all calls until **8pm**, at which time they pass off the pager to the consult 3 resident (who holds it until nightfloat arrives at 9pm)

**Expectations**

- Be aware of who is available to do consults and what their current work load is in order to distribute work equitably
- If you have a sick patient on the floor, you should defer consults to Consult 2 or 3 residents
- The call person should ideally see ER consults or floor patients that they think are going to be admitted to their service and assign other consults to the consult 2 or 3 person. This allows them to present them to the attending on rounds the next day and provide continuity of care.
- If the wards person is on call, they **MUST be out of the hospital by 9pm**
- Please see consults rotation for everything else

# -HOW TO…-

# DO FRIDAY CALL

**Structure**

- Carries consult pager from 4:30pm on Friday until 8:00am on Saturday
- Done by PGY3 (Jul-Dec) or PGY2 (Aug-Jun)
- Usually is scheduled for ICU rotation on Sunday

**Expectations**

- Discuss all cases with attendings Saturday morning and see as many cases with them as you can. Usually one service will have more overnight admission than the other. You should present your admits and consults to the attending one service and then interrupt rounds on the other service to present your admission and consults
- You should see the patients you admitted with the attending if you can get out on time but you will not have time to see consults with them
- Do not stay to help with follow ups or additional consults after 8am
- Update white board and Epic lists
- It is ok to defer/hand-off non urgent or late (after 7am) consults to the oncoming resident. Critically ill patients that are called late should be managed by the Fri call resident until the oncoming resident comes on at which point they take over care and wrap up the consult/admission
- See consults rotation for everything else

# -HOW TO…-
# DO WEEKENDS

| | Vascular Wards – BB7 | General Wards – 7B | Consults |
|---|---|---|---|
| **Saturday** | 1 Vascular Attending<br>1 wards APP<br>1 PGY1 Medicine Intern<br>1 Vascular PGY2 Neurology Resident<br>1 Stroke Fellow (5 months of the year) | 1 General Attending<br>1 PGY1 Medicine Intern<br>1 General PGY2 Neurology Resident | 1 Consult Resident (7:45am – 9pm) **assistance from:**<br>1 NCCU resident (end of rounds-4:30pm)<br>1 Wards Resident (end of rounds-9pm)<br>1 NIR/code stroke APP (7am-7pm) |
| **Sunday** | 1 Vascular Attending<br>1 wards APP<br>1 PGY1 Medicine Intern<br>1 Vascular PGY2 Neurology Resident | 1 General Attending<br>1 PGY1 Medicine Intern<br>1 General PGY2 Neurology Resident | 1 Consult Resident (7:45am – 9pm) **assistance from:**<br>1 NCCU resident (end of rounds-4:30pm)<br>1 Wards Resident (end of rounds-9pm)<br>1 NIR/code stroke APP (7am-7pm) |

**Structure**

- Both teams round simultaneously starting at 8am in their respective work spaces
- Rounding order is by provider nightfloat->APP->PGY2->intern

**Available attendings**

- 1 General wards attending that also staffs general consults
- 1 Vascular wards attending that also staffs vascular consults
- 2 NCCU attendings (each covers half the NCCU but 1 is designated as the on call attending to contact with questions, this is specified in the on call google calendar)
- 1 Peds Neuro attending. Any request to see a peds consult on the weekend cannot come from the peds team and must be approved by the peds neuro attending

**On Call Consult Resident**

- Receive and triage all new consults and follow ups
- See consults yourself until the wards and NCCU residents are free (typically between 10am-12pm)
- If outside hospitals call for transfers, please direct them to express care (the transfer

center) 401-444-3000. **Please do not accept outside hospital transfers**, this should only be done by an on call neurology attending

- If you receive phone calls from patients or the operator for outpatients that follow with an attending, please direct them to the on call general neurology attending
- Answer phone calls about patients that follow in resident clinic
- If you receive a consult request on a pediatric patient, please direct them to the on call peds neuro attending, do not give recommendations or agree to see consults unless you personally hear from the peds neuro attending. See peds rotation for more info.

**Wards Resident**

- Rounds function just like weekdays expect that there are no interdisciplinary rounds or didactics
- Once rounds are over, notes are finished, and your intern and APP don't need anything from you, you will do one of the following depending on which day you're staying late:
    - start helping with consults and be out by 9pm
    - sign out to the other wards PGY2 and leave

**NCCU resident**

- Runs just like a weekday except rounds tend to be quicker and the resident stays until 4:30pm to help the on call consult resident once your work in the NCCU is done

**Nightfloat Resident**

- Sign out to on call resident at 7:45 am
- Present all admissions to the wards attending, start with one team then interrupt the other team. See the admissions with the team time permitting and tell the attending briefly about your consults.
- You should not round with the team on patients you did not see
- Don't stay to help out with consults or follow ups

# -HOW TO…-

# Do an EMU Admission

**EMU ADMISSION NOTE**

**CHIEF COMPLAINT:**

**HISTORY OF PRESENT ILLNESS:** Brief summary of their epilepsy history, including age of seizure onset and reason for clinic visit/EMU admit.

- Reasons for EMU admit: PNES vs. epilepsy, capture different types of spells to tailor AED regimen, Phase 1 presurgical workup, inpatient AED taper/med adjustments, etc
- The patient has *** seizure types:
- **History of status epilepticus? History of seizure clusters? History of injury due to seizure or prolonged GTCs?**

SEIZURE DESCRIPTION:

- *Seizure type 1*: Should include description of aura (if present) and the signs/symptoms that follow (per patient and/or witnesses). History of status epilepticus? Any injuries from seizures? **Seizure frequency? When was most recent seizure?**
- *Seizure type 2:* Same thing

RISK FACTORS FOR SEIZURES: Head trauma? CNS infections? FHx seizures? Dev't delay? Febrile seizures? CNS infections/vascular disease/tumors?

CURRENT ANTIEPILEPTIC MEDS: List all AEDs and doses as well as side effects.
PRIOR ANTIEPILEPTIC MEDS: List AED names, doses, and reason for discontinuation (side effect, ineffective, etc).

PREVIOUS EVALUATIONS:

- Previous EEG, MRI results
- If done: PET, SPECT, fMRI, WADA, Neuropsych results

**PAST MEDICAL HISTORY:**
**PAST SURGICAL HISTORY:**
**FAMILY HISTORY:**
**SOCIAL HISTORY:**
**PHYSICAL EXAM:**

**IMPRESSION/PLAN:**

- AED plan (continue home meds? Taper schedule? Discuss with attending)
- Check labs including AED trough levels (and pregnancy test if female) – PRN
- cvEEG
- Precautions: seizure, fall, aspiration
- Telemetry
- Peripheral IV
- 1:1 sitter
- **Lorazepam 2mg IV PRN seizure >5 minutes AND/OR cluster of 3+ seizures in one hour, MUST PAGE MD IF GIVING**
    - You can decide how to write the LZP order based on the individual patient's seizure types. Do they tend to cluster? Do they have a history of status epilepticus or prolonged GTCs? Is this an admission for potential PNES?

# -HOW TO…-

# ORDER EEGS

- EEG tech work hours are 7AM-3:30PM. So, plan ahead.
- Routine (20 min) are done in the EEG lab (APC 6) during the week
- Prolonged or portable routines are done at the bedside
- The EEG tech pager is 350-4040 (also available in the resident pocket card)

- ICU patient and wards patients who need longer monitoring are challenging to move off the floor. Please page the EEG tech to inform them about these patients
- Concern for status epilepticus (convulsive or nonconvulsive) **is the only reason** to call in EEG tech during afterhours.
- If an emergent afterhours (3:30pm to midnight) EEG is needed, **only neurology residents or neurology attendings** may call in techs.
- **EEG techs are <u>unreachable</u> from midnight to 6am. You must treat clinically during these times**
- EEG tech is in house weekdays and weeknights
- They need to know who can be taken off entirely, or who needs to stay on (and turn over the machine). It's good to habitually let them know after you round with your attending, otherwise they will call you.
- The overnight resident and wards residents should be aware who needs to stay on. This should be communicated at the daily 4:30pm signout on BB7.
- Consult Chief resident should communicate to the weekend residents who needs to stay on as well as criteria for discontinuing EEGs
- EEGs must be preliminarily interpreted by residents on the spot
- EEG attending is available by phone for emergencies and will call with emergent findings. The attending will routinely put the reports in Epic in the afternoon 7 days a week.

# -HOW TO…-

# RUN CODE STROKES

*Please refer to the stroke pocket cards and intranet protocols. Whenever there is disagreement, refer to these resources. If there is still disagreement, call the on call stroke attending.*

**Some facts about code strokes**

- Can be initiated by **anyone** at RIH, Hasbro, or WIH
- ED and EMS code stroke pages are sent out by medcomm (the little desk inside the entryway in the ER)
- Floor code strokes are sent out by the operator who is contacted by whomever decides to activate it
- Floor code strokes are over headed everywhere in the hospital, but ER code strokes are only overheaded in the ER. All code strokes are sent to the consult pager regardless of location.
- You have the option to add your personal pager to the code stoke blast page, just call the page operator.
- Both a neurology resident and NVC-APP go to every code stroke 24/7 at RIH.

**What to do about false activations**

- STAY CALM AND BE POLITE
- If a patient does not meet activation criteria, you should cancel it immediately. This is important as the CT scanner and NIR suites stop their normal work flow waiting for this patient. If you feel a code stroke activation was intentionally abused or there is systems/education issue, please discuss with your stroke attending
- If the team that activated the code stroke disagrees with your cancelling it despite your explanation, have them speak with the on call stroke attending immediately
- Ask if the team still wants a neurology. If they do not want one, just write a brief significant event note explaining the reasoning for code stroke activation, cancellation, and follow up plan if.

**Tips**

- **NEVER STOP THE CODE STROKE UNTIL TPA OR ENDOVASCULAR ARE DELIVERED OR DEFINITIVELY EXCLUDED**
- Do not waste time calling the ED/floor – go directly to the bedside/CT scanner
- Walk, don't run, it scares people in the hospital. No place takes >5 minutes to walk to in the hospital

- Introduce and identify yourself as a member of the stroke team
- If the patient doesn't have an ID band on, the registration desk (ED bay entrance) will band them.
- If there is a family member there, grab them a chair and ask them to wait in the critical care bay. If they go off to park the car or get coffee you might lose time-sensitive collateral info
- Do not delay a scan to finish your exam
- Always get verbal confirmation that someone is mixing the tPA
- We never OFFER tPA, we recommend it or recommend against it
- PGY2s should never administer tPA without discussing with the on call chief or attending first. PGY3s may administer tPA shortly after discussing with the attending or chief/fellow
- Shout out the time that tPA is given so the nurse can record it. "tPA bolus going in at 9:45am!" The neurology resident or APP will give the bolus and the ED nurse will hook up the drip
- If the patient is ready to go up to endovascular, do not delay endovascular therapy to administer tPA in the ED. tPA is also stocked in the NIR suite and can be given by staff there
- Although you must trust the APP to obtain the correct read of the CTA and appropriately call the NIR attending for an LVO, you should always look at the CTA yourself at some point for your own education and make sure other abnormalities weren't missed. A good time to do this is once you have given tpa or excluded it as treatment. This can be done on any of the ED bay/critical care computers.
- Once tPA and endovascular therapy are either delivered or excluded, announce the the code stroke is over so that the patient may be moved out of the critical bay and make rom fore critical patients
- If you want a hyperacute MRI, it must be cleared by the on call NIR attendings
- Give the ED dispo (attending and floor), BP parameters, any other orders, and say whether you've already called the charge nurse on that floor requesting a bed otherwise you will be paged about these questions after you've already left the patient's bedside and will be interrupted during another consult
- Always confirm LKN with a reliable patient or eye witness– **DO NOT** simply take the word of another provider
- Never delay tPA for a foley , another IV to be put in, EKG, gown. Politely remind the nurse or tech that the tpa is the priority as per the code stroke protocol
- And MR RAPID and hyperacute MR are not the same. RAPID is the name of a software that processes perfusion imaging and requires contrast. Hyperacute means it's happening right now. So you can have a hyperacute with or without a RAPID or a RAPID that may or may not be hyperacute

# ADMIT PATIENTS

**Expectations**

- Verify medications
    - To do this go to Admission tab->outside meds->complete dispense report
    - if unable to, please document in your note and sign-out for the day team to do this!
- Update PMH, SH, FH in the admission tab, do not put them in your HPI
- Update problem list
- Use the appropriate order set
- Ensure all imaging and tests are ordered
- Fill out MRI Screening form yourself, do not leave this for the day team except if extremely busy or unable to complete due to lack of family. This delays imaging for our patients and ultimately discharge!
- It is YOUR responsibility to inform the NCCU resident, ward resident, call resident or nightfloat about your admission
- Drag patient onto the appropriate group list in Epic
- Write name on the BB7 white board
    - Write important follow up or FYIs on the white board for the evening and/or nightfloat residents to do or be aware of. For example, “f/u 6 hr HCT at 2am to r/o ICH”
- Update handoff section in patient’s chart for day team and night float to refer to
- Set expectations with family/patient:
    - Working diagnosis
    - What tests will happen and when
    - Which team members will be taking care of them
    - Day time rounds between 9:30am-12pm – they should be there to ask their questions if possible
    - Estimated length of stay in the ED (if there are not free beds)
    - They may get bumped to another bed/floor if beds are needed

**Tips on writing an admission note**

- Chief complaint should be an actual complaint: right sided numbness & tingling, not a diagnosis. And NEVER CVA (Cerebrovascular accident). CVA is a ludicrous term, it is almost never an accident
- HPI: Concise, but enough detail to understand the story. Pertinent components of

the PMH, but not every element of PMH. For example, gout is almost never relevant. Some HPIs require significant background information to be conveyed

- A lot of neurology is detective work. It's often necessary to dig through the chart and document relevant history in a concise fashion
- Prior imaging/stroke details or EEGs are important to mention!
- Medication: All currently known, list how you obtained list (i.e. confirmed with family, CVS).
- Social Hx: Includes habits, occupation. Level of independence (ADLs) and ambulatory status are very important to know for baseline and dispo
- A full neurological exam must be documented on every initial consult/admission seen
- Make a template of a normal neurological exam adapted from macros used by attendings/senior residents
- Please provide at least 3 differentials for each assessment.
    - Even when the DDx is seizure, seizure, seizure… it is often worth addressing why it is not another Dx.
    - Additionally, provide a DDx for etiology or mechanism (i.e. seizure due to medication non-compliance, substance abuse/withdrawal, infection decreasing seizure threshold or acute R MCA cardioembolic stroke due to afib)

**Rule 6:**

- This is a hospital wide rule that enables the ED to decide which service is most appropriate for a patient and improve their flow
- If that service disagrees, the attending of that service has 1 hour to contact the attending of a different service which they think is a better disposition for them.
- It is not the neurology resident's responsibility to make a case with the attending of the other service. This should be an attending to attending discussion.
- If a different service is not identified after 1 hour, the patient is admitted to the service initially identified by the ED
    - Note: just because the ED calls a neurology consult, this does **not** necessarily mean they intend to admit to our service

# DISCHARGE PATIENTS

The discharge summary includes the following components. It is the resident's job to review all intern discharge summaries before the patient leaves

- **Use stroke navigator for vascular wards patients**
- **Update problem list**
- **Medications**
    - Ensure the comments section includes the start and stop time for any new or scheduled blood thinners. i.e Aspirin 81mg. stop once INR is 2 or greater
    - Make sure to print and sign medications that are controlled substances, they cannot be electronically prescribed. This includes benzos, opioids, and lacosamide
- **Hospital Course**
    - essential – ensure this is accurate and detailed
- **Neurologic exam at discharge**
    - This is very important and should be complete and accurate since patients may bounce back and you'll want to know their most recent baseline exam
- **Follow up**
    - On the day of discharge, check with the attending whether the patient needs a follow up, with whom, and approximately when
    - Ensure the automatic "2 week follow up" does not auto populate. Epic will sometimes default to this it sets wrong expectations of patients, families, and primary cares
- **After Visit Summary**
    - Explain in plain language what happened during their stay
    - Spell out diagnosis, appointments/times, med changes, outpatient tests and labs

# HANDLE TRANSFERS

**Outside hospital transfers**

- Responsibility of **Express Care (401-444-3000)** to page the consult pager of any incoming transfers. If this is not happening, let the program directors know.

**In house transfers**

- Sign out between transferring and receiving resident/APP
- Update white board and epic list
- Patients do not become our responsibility until they physically move over to their new bed. There may be exceptions, check with your attending

**Tips**

- If you know a transfer is en route and don't feel you've received adequate information, you can call express care for family or outside hospital for collateral
- Express care can get you records or OSH imaging uploaded, just ask

# -Policies-

| | | |
|---|---|---|
| **Rhode Island Hospital Administrative Manual** | **Subject:** Evening and Weekend On-call: Emergencies Only | **File Under:** Department of EEG |
| **Issuing Department:** EEG | | **Latest Revision Date:** July 2018 |
| **Original Procedure Date:** April 9, 2010 | **Page 1 of 1** | **Approved By:** |

**Medical Director**

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**I. Purpose**

This policy is put in place to guide all staff in the department of EEG on how evening and weekend on-call works for Rhode Island Hospital and Women and Infants' Hospital.

**II. Policy**

The department of EEG is open Sunday thru Saturday from 7:00am to 3:30pm. Non-emergent EEG requests should be called to the department main number and a message should be left. All non-emergent EEG's will be scheduled during normal business hours. Emergency or stat EEG's shall be handled by the direction of the Chief Neurology Resident or one of the Neurology Faculty. On-Call services **are not available** during the following hours: Sunday – Saturday, 12am-7am, with the exception of calls related to patients undergoing invasive monitoring.

**III. Procedure**

- Any request to have an emergency or stat EEG performed after 3:30pm and on the weekend must be approved by the Neurology Chief Resident or a Neurology fellow or faculty, and is to be initiated by a Neurology resident, fellow, or NCCU Physician's Assistant or Neurology faculty only. Neurosurgery must consult with Neurology for emergent EEGs as well.
- Appropriate indications for emergent after-hour requests include: ruling out non-convulsive status and guiding drug induced burst suppressive patterns.
- The Neurology Resident on-call can be reached at 350-0795.
- The supervising Neurology Chief Resident or the Neurology faculty, after discussion with the on-call neurology resident, will determine whether or not the case presented is indeed an emergency and cannot wait until normal business hours.
- The on-call neurology resident is responsible for **paging** the EEG technician on-call at 350-4040 to perform the EEG. The technician performing the EEG will inform the on-call neurology resident when the EEG is complete.
- Off-hour emergent EEGs will be reviewed by the on-call neurology resident, and/or their supervising Neurology Chief Resident or Neurology faculty.
- The Administrative Manager shall be made aware of all on-call EEG's on the next business day.

# HOW TO DIRECT CALL CENTER

Match the type of call with the time of the day/week. If unsure, ask one of the program directors or on call attendings.

| Hospital | Call Type | Business Hours 8AM-4:30PM | After Hours+ Weekends + Holidays Fri 4:30PM- Mon 8AM |
|---|---|---|---|
| **RIH** | **Inpatient Consult** | Neuro Resident On Call Pager 401-350-1386 | Neuro Resident On Call Pager 401-350-1386 |
| | **Outpatient (Neuro Resident Clinic)** | RIH Neuro Clinic Phone 401-606-2555 | Neuro Resident On Call Pager 401-350-1386 |
| | **Outpatient (Vascular Neuro)** | Brown Neurology Phone 401-444-3032 | Vascular Red Attending |
| | **Outpatient (General Neuro)** | Brown Neurology Phone 401-444-3032 | General Attending |
| | **Transfer request to Vascular Neuro Inpatient** | Express Care to contact Vascular Red Attending | Express Care to contact Vascular Red Attending |
| | **Transfer request to General Neuro Inpatient** | Express Care to contact General Attending | Express Care to contact General Attending |
| | **Transfer request to NCCU** | Express Care to contact NCCU on call attending | Express Care to contact NCCU on call attending |
| **TMH** | **Outpatient** | Usual Provider | TMH Attending |
| | **Inpatient Consult** | TMH Attending | TMH Attending |
| **WIH** | **Inpatient Consult** | Neuro Resident On Call 401-350-1386 | Neuro Resident On Call 401-350-1386 |
| **Hasbro** | **Inpatient Consult** | Peds Neuro Resident On Call 401-350-2646 | On Call Peds Neurology Attending |

# CALLING IN BACK UP ON A BUSY CALL

Calling someone in for back up should only happen if patient care is being compromised or a last-minute personal/family emergency and provided that it cannot be covered by other staff already in the hospital on other rotations. There are some measures that can be taken prior to calling in back up:

- When the total inpatient census is getting close to 35 or a particular service is busy, patients that are normally admitted to vascular can be admitted to general neurology and vice versa. This call is made by the chief resident/attending receiving the call from the in house resident to staff the case. If an attending receiving the patient disagrees the following the morning, they can request a transfer to the other service.
- The ward chief or fellow should shift from the attending role to a supervising resident role. They will take over directly supervising the intern and be the APP's back up so the PGY2 can focus on taking care of over the caps.
- The attending should be available to help speak with patients/families.

- Back up will not be called in due to flow issues in the ER or backed up nonurgent consults. The ER can contact one of the on call neuro attendings for preliminary recs by phone and nonurgent consults can be passed on to the resident coming on to the next shift.
- If one of the on-call neurology residents or attendings feels patient safety is being compromised, they should call the program director (or associate program director if the program director is not available). The PD will assess whether an additional resident and/or attending need to be called in from home for back up.

# CODE BLACK

When the combined census (vascular + general) is 35 or greater, all APPs and resident are paged that we are on code black.

**Protocol** (Current as of October 10, 2019)

We are **not accepting non-emergent neurology transfers to Rhode Island Hospital for the next 24 hours.** Patients who are already at Rhode Island Hospital with primary neurological problems are still primarily admitted to neurology even if they are not emergent. They may be triaged to other services with neuro consults following on a case by case basis after discussion with the attending neurologist on call.

**1) continue to accept all emergent neuro transfers including ELVOs, intracranial hemorrhages, and neuro ICU level patients**

- *no need for additional calls to any of the on call attendings outside of the calls that are usually made. i.e. calling the vascular neuro attending for floor to floor transfers, calling the NIR attending for ELVOs, and calling the NCCU attending for ICU to ICU transfers*

**2) if there is a question as to whether a transfer is necessary, please call either the vascular or general neurology attending on call depending on the type of case.**

- *The on call attending should review imaging remotely using Lifeimage where applicable*
- *The NIR attending should continue to be called about potential/actual endovascular cases as usual but not non-interventional cases*
- *A transferring hospital "not having a neurologist" is usually not a sufficient reason to transfer as many of these cases can be resolved over the phone when discussing with the on call neurology attending*

**2) patients on the neurology services with active medical issues and no/minimal active neurological issues can be transferred to medicine.**

- **Page 350-0354 as early as possible to determine if the patient is appropriate and medicine has the capacity to accept them.**
- *appropriate diagnoses that should be evaluated on a case by case basis*

***4) the vascular neurology service is usually the busier of the two during a code black.*** **lower acuity patients that are normally admitted to the vascular neurology service should admitted to the general neurology service provided they have the capacity to accept. The reverse is true when the general neurology service is the busier of the two. This determination is made by the on-call chief resident or attending when the in house resident seeing the patient calls to discuss the case with them.**

# SCHEDULE CHANGES, ABSENCES, AND SICK CALL

**Schedule changes**

- If a resident needs coverage, it is their responsibility to find coverage and then notify the on call chief resident responsible for scheduling. This applies to all rotations, clinics, didactics presentations, grand rounds presentations, and any other assigned responsibility. If the nature of the emergency does not allow them time to make other arrangements, they should contact the on call chief resident to arrange coverage for them. If there is no chief resident on call, they should contact one of the program directors
- Be cognizant of the impact on duty hours, days off, minimum duration of rotation requirements, and clinic when you change your schedule
- All anticipated rotation and call changes must be approved by the program director and relayed to the chief resident
- Residents may not use single vacation days as part of switches, vacations must be taken for 7 days at a time

**Sick Call/Personal Emergencies**

- The pull order is EEG/radiology->double covered peds->NOC->elective->EMG->off service PGY4
- If someone calls in sick Sat, Sun or on a holiday and the necessary responsibilities cannot be covered by in house residents, an off-service resident will be pulled

# CONFERENCE ATTENDANCE

- **Attendance is mandatory and tracked**
- **Sign in by scanning the QR code on the APC 568 conference room door**
- **Morning report starts at 8 sharp and ends at 8:45. Noon conference is from 12-1pm**
- This will be reviewed at every semi annual meeting.
- Please use the sign in sheet on the clipboard for every morning report and noon conference. Use the evaluation form for grand rounds in lieu of the sign in sheet (it's on the table near the entrance/exit)
- Absences are only excusable for time sensitive emergencies. Having a busy service with no acute patient to attend to is not an adequate reason (see **who's excused** below)
- Chiefs should not send juniors to non-emergent consults during didactics. If it is unclear whether a case is emergent, a resident should check it out and if it's determined not to be an emergency, they should come back to conference and wrap up the consult afterwards.
- During July when new PGY2s start, it is the consult chief's responsibility to respond to or assign another resident to respond to any emergent neuro consults during didactics so that the PGY2s attend all July didactics. For the rest of the year, it is a judgement call on the part of the chief.

**Who's excused?**

- All didactics: Anyone with an unstable patient, on away elective, vacation, or the VA
- Morning report: consult 2, consult 3
- Noon conference: consult 3, night float

# PROFESSIONAL ALLOWANCE

Here is a list of possible charges and what fund they can be taken out of:

| Professional Allowance ($1500/resident) | Additional Funding at Program Director's Discretion |
|---|---|
| Books (outside of the books given to each resident every 6 months) | Conference where a resident is presenting a poster or presentation (flight, train, lodging, registration, poster printing fees) |
| Neurological exam tools | Clinician educator track conference including associated expenses (travel, registration, lodging) |
| Conference attended solely for educational purposes and the resident is not presenting anything (flight, train, hotel, registration fees) | Global health track conference or elective including associated expenses (travel, registration, lodging) |
| ABPN registration fee (boards) | |
| Step 3 registration fee | |
| Medical license/DEA fee | |

- Before purchasing anything outside your professional allowance, discuss with the program director to ensure it can be reimbursed
- Taxis and meals are not reimbursed
- If you cannot purchase out of pocket, talk to the program directors who will find an alternative purchasing mechanism. Please DO NOT use the hospital travel agent
- For travel related expenses, residents are reimbursed upon their return
- If the resident already has a copy of a book purchased for them by the dept, that money may not be given to the resident and used for alternative purchases.

# MEALS

- The hospital provides meals to residents on call via Freedom Pay. Please contact the GME office for any issues with it.
- The department provides residents with snacks, tea, coffee, and office supplies that are ordered at the beginning of each month by the program coordinator. Changes can be made provided we remain within the budget. Please speak directly with the program coordinator about any requested changes.
- The department provides lunch at noon conference every Thursday or Friday. During interview season, this is replaced by breakfast at morning report and lunch at noon conference on both Tuesdays and Fridays.
- Changes to the noon conference food can be made. Please let the program coordinator know.

# MRIs in the Emergency Dept

The following was discussed with Dr. Tung (neuroradiology) on 10/11/17

- When a particular MRI is needed with contrast needed in the ED, please discuss the reasoning directly with the ED radiology resident to ensure it is protocolled appropriately.
- If you are told that it cannot be done in ED, please remind them that there is no such policy. If you are facing resistance, please ask the appropriate on call neurology attending to back you up. Involve the on call neuroradiology attending as needed.
- **Please remember that ED MRIs are a privilege not available at most hospitals and should not be abused**

# CODE OF CONDUCT

- Treat your colleagues and patients as you would want to be treated
- Your primary duty is towards your patient
- Remember that your behavior reflects on your co-residents, department, and specialty
- Remember that the behaviors you model are emulated by your juniors
- Except for PGY4s who take home call overnight, all resident must remain in house for the duration of their shift. Temporary leave from in house call must be cleared with the program director
- If there is disagreement between a junior and senior resident's recommendation, the on call attending should be contacted.
- Everyone must be reachable when on duty including home call and elective
- Work email should be checked daily on all working days with the exception of holidays and weekends
- All residents are required to maintain a professional calendar
- Complete all documentation in timely fashion
- Remain up to date with net learning, credentialing, and work health and safety documentation

# -Miscellaneous-

## Clinician Educator Track

The dept offers 2 optional tracks: **Clinician Educator Track (CET)** and **Global Health**.

**Core Requirements:**

- Open to all PGY-3 and PGY-4 neurology residents in good standing
- **Attend at least 8 sessions and lead at least 8 sessions.** Options include lectures, posters, presentations, small group sessions, and work shops. For CET, each session should be prepared with and be observed by a core faculty member**.** Written feedback should be provided to the resident after each session. Additional opportunities are emailed to the group periodically.
- It is the resident's responsibility to **keep a record** of all activities and provide them to the program coordinator.
- Prepare **1 scholarly project** about to be presented in PGY-4 year. This can be fulfilled in the following ways: PGY-4 Neurology Grand Rounds presentation at Rhode Island Hospital or Oral Presentation or Poster Presentation at a national/regional conference like the American Academy of Neurology (AAN) Annual Meeting

**Additional opportunities**
Two residents per academic year (one PGY-3 and one PGY-4) will be funded to attend **The Principles of Medical Education** conference each spring. All residents in the clinician educator track are welcome to apply by contacting the residency Program Director. The attendees will be chosen by the clinician educator track faculty. Residents who attend the conference in PGY-3 year will not be funded to attend it a second time in PGY-4 year in order to allow other residents to attend. This conference counts towards 2 attended sessions.

# HOW RESIDENTS ARE EVALUATED

**Clinical Competency Committee**

- Faculty who spend a significant portion of their clinical time working with residents in both inpatient and outpatient settings are selected. These faculty use written feedback given at the end of each rotation to assign residents their ACGME Neurology Milestones. This is done twice a year.

**Program Curriculum Committee (PEC)**

- Once a year, 1-2 residents from each year of training and a group of at least six core faculty meet and use the AGME surveys filled out by both residents and faculty to guide ways of developing the program.

**Semi annual evaluation**

- Each resident will have an individual, face-to-face semiannual evaluation with the program directors
- Residents are expected to review the form prior to their meeting, see next page

**Neurology Resident Semi-Annual Review Form** (last updated 5/30/19)

| Resident | Met with Program Director ☐<br>Assistant Director ☐ | Evaluation Period Jan-Jun 2019 |
|---|---|---|

| **ACGME Milestones** |
|---|
| Evaluations Received and Reviewed Yes ☐ No ☐ |
| At appropriate training level Yes ☐ No ☐ |
| Areas for Improvement/Comments |

| **RITE – Residency In-Service Training Exam (Raw, %ile year of training, %ile all trainees)** | | |
|---|---|---|
| PGY2 | PGY3 | PGY4 |

**Adequate conference attendance in last 6 months** Yes ☐ No ☐ **Epic Inbox Cleared** Yes ☐ No ☐

**CV Reviewed** Yes ☐ No ☐ **Moonlighting** Yes ☐ No ☐ **Administrative checklist up to date** Yes ☐ No ☐

**Number of Academic goals met from last 6 months (publications, projects, electives, personal study):** _____ of _____

**Amount left in Professional Allowance:** /$1,500

| **Academic Goals for next 6 months** | **Clinician Educator Track** Yes ☐ No ☐ | **Global Health Track** Yes ☐ No ☐ |
|---|---|---|
| Meeting track requirements Yes ☐ No ☐ N/A ☐ | | |

| **Completed Clinical Skills Evaluation Exercises (NEX forms)** | | | | |
|---|---|---|---|---|
| Ambulatory ☐ | Child Neurology ☐ | Critical Care ☐ | Neurodegenerative ☐ | Neuromuscular ☐ |

| **Current Level of Burnout** (none) (mild) (moderate) (ready to quit) |
|---|
| Do rotations need to be moved around? Yes ☐ No ☐ |
| Other Interventions |

**Post Grad Plans**

**Program Feedback**

**Resident Signature** **Program/Assistant Director Signature** **Date**

# ELECTRONIC CALENDARS

**NEUROLOGY DEPT EVENTS**

Website Link:
https://calendar.google.com/calendar/embed?src=0gkr3hvnht5v51sh5sog3nh6j4cnkqvh%40import.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/0gkr3hvnht5v51sh5sog3nh6j4cnkqvh%40import.calendar.google.com/public/basic.ics

**RESIDENCY CONFERENCES AND EVENTS**

Website Link:
https://calendar.google.com/calendar/embed?src=hdlj8g11m6uk2ds6mmk211il9k%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/hdlj8g11m6uk2ds6mmk211il9k%40group.calendar.google.com/public/basic.ics

**NEUROLOGY CLERKSHIP**

Website Link:
https://calendar.google.com/calendar/embed?src=brown.edu_536pmjb80hs7jfuih2dsfk2i88%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/brown.edu_536pmjb80hs7jfuih2dsfk2i88%40group.calendar.google.com/public/basic.ics

**CONSULT ATTENDING**

https://calendar.google.com/calendar/embed?src=u42g36un8alkoajgijr58d7jgs%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/u42g36un8alkoajgijr58d7jgs%40group.calendar.google.com/public/basic.ics

**GENERAL WARDS ATTENDING**

Website Link:
https://calendar.google.com/calendar/embed?src=5jcocepib2v0h5nfocoaoc9oq0%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/5jcocepib2v0h5nfocoaoc9oq0%40group.calendar.google.com/public/basic.ics

**VASCULAR WARDS ATTENDINGS**

Website Link:
https://calendar.google.com/calendar/embed?src=tbemfr7jt94qp2tpf0f71b2h50%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/tbemfr7jt94qp2tpf0f71b2h50%40group.calendar.google.com/public/basic.ics

**NCCU ATTENDINGS**

Website Link:
https://calendar.google.com/calendar/embed?src=h302tq2di2t1bdhha7f2g9hko8%40group.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/h302tq2di2t1bdhha7f2g9hko8%40group.calendar.google.com/public/basic.ics

**NIR ATTENDING**

Website Link:
https://calendar.google.com/calendar/embed?src=98efsd4kd03p4rrdspq7k5emldrfk13h%40import.calendar.google.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/98efsd4kd03p4rrdspq7k5emldrfk13h%40import.calendar.google.com/public/basic.ics

**TMH ATTENDING**

Website Link:
https://calendar.google.com/calendar/embed?src=tmhneurology%40gmail.com&ctz=America%2FNew_York

Calendar Application Link
https://calendar.google.com/calendar/ical/tmhneurology%40gmail.com/public/basic.ics

# EPIC LISTS

- There are lists for all inpatient services
- Neurology residents have access to share and modify the lists. When granting accessing to learners, other than neuro residents, view only access should be granted and they should be removed once they come off the rotation.
- When admitting or seeing a new consult, drag the patient onto the appropriate list
- Everything entered into the handoff is visible to epic users, please keep all communications professional.
- Write a handoff with pertinent information; update daily if you are the primary provider. This is important for nightfloat when an acute issue arises

# THE WHITE BOARDS

**BB7 White Boards**

- Essential for communication
- Contains all information for daytime vascular service coverage as well as all nighttime and weekend information for all neurology services in the hospital (vascular, general, ICU, consults, peds)
- The white board on the L side of the room is used every day, the white board on the R side of the room is only used for weekend consults/consult follow ups
- For weekend consults, place a (G) for general or (V) for vascular next to the patient's name so the attendings know **which patients to staff.**

**L White Board (daytime and overnight stuff)**

<table>
<tr><td colspan="2">NEW ADMISSIONS/TRANSFERS</td><td>ATTENDING<br>Name/contact</td><td colspan="2">PATIENT ASSIGNMENTS</td></tr>
<tr><td>VASCULAR</td><td>GENERAL</td><td rowspan="6">OVERNIGHT TO DOS</td><td>INTERN<br>Name/pager</td><td>NEURO PGY-2<br>Name/pager</td></tr>
<tr><td rowspan="6">Patient Name<br>Patient Name</td><td rowspan="6">Patient Name<br>Patient Name</td><td rowspan="3">Patient Name<br>Patient Name</td><td>Patient Name<br>Patient Name</td></tr>
<tr><td>APP<br>Name/pager</td></tr>
<tr><td>Patient Name<br>Patient Name</td></tr>
<tr><td>Student 1<br>Name/pager</td><td>Student 2<br>Name/pager</td></tr>
<tr><td>Patient Name<br>Patient Name</td><td>Patient Name<br>Patient Name</td></tr>
</table>

**R White Board (weekend consults/consult follows ups)**

| NEW CONSULTS FOR ATTENDINGS TO STAFF | CONSULT FOLLOW UPS FOR RESDIENTS |
|---|---|
| SAT | SAT |
| PATIENT NAME (V)<br>PATIENT NAME (G) | PATIENT NAME<br>PATIENT NAME |
| SUN | SUN |
| PATIENT NAME (V)<br>PATIENT NAME (G) | PATIENT NAME<br>PATIENT NAME |

**6B White Board**

- Only contains information relevant to daytime general wards information.
- All consult and overnight to-do information for both general and vascular wards belongs on the BB7 white board. Consult residents usually hang out on BB7 because there are more computers there and it's closer to the ER

| NEW ADMISSIONS/TRANSFERS | NOTES | PATIENT ASSIGNMENTS | |
|---|---|---|---|
| Patient Name<br>Patient Name<br>Patient Name | | INTERN<br>name/pager | NEURO PGY-2<br>name/pager |
| | | Patient Name<br>Patient Name | Patient Name<br>Patient Name |
| | | **STUDENTS** | |
| | | Name/pager | |

# WHO ARE THE NVC-APPS?

Inaugurated in September 2016, the Neurovascular Center Advance Practice Provider (NVC-APP) program is a collaboration between the emergency department, interventional neuroradiology, and vascular neurology. The APPs (nurse practitioners and physician assistants) **work alongside neurology residents of all levels of training** and across systems of care for patients with stroke: code stroke process, interventional neuroradiology, and the vascular neurology inpatient service. Coverage is provided **24/7.** The APPs also **assist in training** junior neurology residents at the beginning of each academic year and are **involved in academic projects** that are presented at national and regional conferences.

**Code Strokes**

The consult resident and APP parallel process with the resident focusing on tPA administration/exclusion and the APP focusing on LVO clot extraction/exclusion. Once the acute imaging is done, the APP discusses the findings with ER radiology. If an LVO is found, the APP contacts the NIR attending and prepares the patient for thrombectomy. The APP may also assist in tPA decision making and administration. If there is no LVO, the APP may leave the code stroke if the resident can manage the rest of the code on their own

If there are multiple simultaneous code strokes, the APP can run a code stroke independently and touch based with the supervising attending/fellow/chief about acute decision making. This frees up the consult resident to do the other code stroke independently

**Vascular Orange**

1 APP carries up to 10 patients each. The ward APP serves as back up to the NIR APP for code strokes and interventional cases when the NIR APP is stuck in another case.

**NIR (Neurointerventional Radiology)**

When working in NIR, the APP acts as the point person for and assists in emergent and elective NIR procedures