

AY 2022-23 Clerkship Annual Report

Clerkship	CORE 3301 Neurology
Timeframe under review	AY 2022-2023
Length of clerkship	4 weeks
Clerkship Directors	Robert Wilson, MD - CC Chen Yan, MD - CC Theodore Bowen, MD - MH Wei Xiong, MD – UH/VA

Sections highlighted **in blue** require the Clerkship Director to complete related to the relevant site. Sections highlighted **in green** are to be completed working together with CDs from other sites at the Annual Fall Retreat when individual site reports will be combined into a comprehensive report for each discipline.

Section A: Instructional methodology

Explain where & how learning opportunities, events and teaching resources are created and mapped in the MD curriculum to achieve LOs.

- 1) Please provide the percentage of time that medical students spend in inpatient and ambulatory settings in each required clinical clerkship. Please also indicate the total number of didactic hours that students are required to attend.

Site	Clinical Experience - Ambulatory (% of Total Clerkship Time)	Clinical Experience -Inpatient (% of Total Clerkship Time)	Student Didactics (Total Hours)
CCF	20%	80%	15
MHMC	10%	90%	3
UH/VA	10%	90%	12

- 2) Please include a summary of all the Required Clinical Experiences.

Conditions	Site/# of students	% and # of students who completed on patients	% and # of students who completed using alternate methods	% and # of students who did not complete
Altered Mental Status/Delirium	CCF	100% (78)	0% (0)	0
	MHMC	100% (47)	0% (0)	0
	UH/VA	100% (86)	0% (0)	0
Dementia	CCF	96% (75)	4% (3)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	96% (85)	4% (4)	0

Dizziness/Syncope	CCF	100% (78)	0% (0)	0
	MHMC	98% (45)	2% (1)	0
	UH/VA	98% (87)	2% (2)	0
Headache	CCF	100% (78)	0% (0)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	98% (87)	2% (2)	0
Late effects of neurologic disease	CCF	97% (76)	3% (2)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	99% (88)	1% (1)	0
Movement disorder/Parkinson's disease	CCF	99% (77)	1% (1)	0
	MHMC	98% (45)	2% (1)	0
	UH/VA	92% (82)	8% (7)	0
Multiple Sclerosis	CCF	90% (70)	10% (8)	0
	MHMC	93% (43)	7% (3)	0
	UH/VA	81% (72)	19% (17)	0
Nervous system tumors	CCF	97% (76)	3% (2)	0
	MHMC	89% (41)	11% (5)	0
	UH/VA	91% (81)	9% (8)	0
Neuropathic Pain	CCF	100% (78)	0% (0)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	100% (89)	0% (0)	0
Neuropathy	CCF	99% (77)	1% (1)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	100% (89)	0% (0)	0
Seizure/Epilepsy	CCF	100% (78)	0% (0)	0
	MHMC	100% (46)	0% (0)	0
	UH/VA	99% (88)	1% (1)	0
Stroke	CCF	99% (77)	1% (1)	0
	MHMC	98% (45)	2% (1)	0
	UH/VA	100% (89)	0% (0)	0

- 3) Please describe how faculty and Residents/fellows teaching and supervising medical students at each site were prepared for their roles in teaching and assessment. This narrative description may include major activities such as preparation meetings, debriefs, and monthly meetings.

CCF 8.7 Comparability of Education/Assessment	
Summarize how faculty at your site are informed about learning objectives, assessment system, and required clinical encounters.	<p>Faculty Retreat that is biannual.</p> <p>We have at least the annual meeting with Dr. Nielson and Sabella.</p> <p>Dr. Nielson and Sabella send emails updates. They are willing and available to have a conversation on the phone.</p> <p>We have monthly Clerkship meeting</p>

What methods do you use to ensure that faculty receive information about student performance and satisfaction?	Clerkship Directors attend the Neurology Monthly Residency Meeting to give updates . We send emails. Most of the core educators are located on Clerkship Directors clinical home floor. Able to give spoken updates and department meeting Have done faculty development aligned with the Neurology Residency Programs Join Noon Program of Neurology Residents to give updates
9.1 Preparation of Residents to Teach/Assess Medical Students	
Briefly summarize the program:	Resident Liaisons Program. Two Neurology PGY4 Neurology Residents. Selected based on excellence in clinical, education, communication, and professionalism. Work with Clerkship Directors to keep and align residents with best practice for medical student education. Monthly residency meetings and noon conference with residents
Is the program optional or mandatory?	Neurology Clerkship Directors Reviewed in Monthly Neurology Residency Meetings
Is it sponsored by the department or institution?	CCF
Who monitors participation?	Clerkship Directors Rob Wilson /Chen Yan, Neurology Residency Director Blake Buletko, Vice Chair of Education of Neurology Education, Mary Ann Mays, Neurology Chairperson, Kerry Levin

Please list any additional activities and sessions you led/organized during the last academic year for the preparation of preceptors and residents in the clerkship.			
Site	When/Frequency	Participants	Activity/topic
CCF	CME Grand Rounds August 2023	Neurology Institute	Reduction Mistreatment and Neglect
CCF	CCLCM 9/2023	Ambulatory Teaching CME	Teaching in real time
CCF	Faculty Development 12/2023	Neurology Educator Program/ Assessment	Assessment value and feedback
CCF	Monthly Neurology Residency Meetings Last Tuesday of the month 7-8 am	Key Neurology Educators	Core education feedback from CCLCM, medical student updates

MHMC 8.7 Comparability of Education/Assessment	
Summarize how faculty at your site are informed about learning objectives, assessment system, and required clinical encounters.	These are addressed at our departmental staff meetings. For non-neurology services (Pediatric neurology, PMR, Neurosurgery), these meetings are scheduled individually with the Clerkship director.
What methods do you use to ensure that faculty receive information about	These are communicated through email and staff meetings.

student performance and satisfaction?	
9.1 Preparation of Residents to Teach/Assess Medical Students	
Briefly summarize the program:	<p>There are no neurology residents. There are rotators from other programs. Teaching and assessment for students rotating on the neurology and NCC services are done by the attending. Rotating residents do not receive any specific training for working with medical students on Neurology or NCC. I do not know whether rotating residents from IM, FM or Psych get a presentation from their programs on how to work with and evaluate medical students.</p> <p>PMR has their own residents who work closely with students. There is no organized presentation to teach residents how to work with and evaluate students.</p> <p>Neurosurgery has residents from CCF rotating with them who work closely with students. There is no organized presentation to teach residents how to work with and evaluate students at MH. It is unknown if they get separate teaching from CCF for this.</p> <p>Pediatric Neurology sometimes has pediatric residents rotating with them. They have variable involvement with students. Almost all of the evaluation is done by the Attendings.</p>
Is the program optional or mandatory?	See above.
Is it sponsored by the department or institution?	n/a
Who monitors participation?	n/a

UH	8.7 Comparability of Education/Assessment
Summarize how faculty at your site are informed about learning objectives, assessment system, and required clinical encounters.	Faculty are provided information on the assessment system via emails sent to the department. Learning objectives and required clinical encounters are disseminated via clerkship cards provide to medical students and passed through to the care teams.
What methods do you use to ensure that faculty receive information about student performance and satisfaction?	The core teaching faculty attend biannual meetings at the department level where all things education related are discussed including clerkship information.
9.1 Preparation of Residents to Teach/Assess Medical Students	
Briefly summarize the program:	I personally do a one-hour introductory session near the beginning of each academic year on medical student roles and expectations. I emphasize proper teaching techniques and the importance of providing useful feedback. Also, learning objectives, target diagnosis list, student

	responsibilities, and protocol for requesting feedback are distributed. All new residents and fellows at UH are also required to complete the CWRU SOM Resident and Fellows as Teachers module.
Is the program optional or mandatory?	Mandatory
Is it sponsored by the department or institution?	Department and Hospital
Who monitors participation?	Clerkship director and the GME office

Please list any additional activities and sessions you led/organized during the last academic year for the preparation of preceptors and residents in the clerkship.

Site	When/Frequency	Participants	Activity/topic
UH/VA			

Section B: Assessment and Evaluation Methodology

Describe assessment/evaluation tools and indicate how each tool aligns with LOs (if applicable). For each tool, clarify how data were collected and analyzed, and explain how reliability and validity evidence has been sought.

Tool	Description/Mapping	Data collection & analysis	Purpose (S/F)
NBME Subject	Standardized, externally validated MCQ tests developed by NBME content experts to assess medical knowledge and patient care	NBME provided year-end reports, score reports, and content area IA/summary report if there are 6 or more test takers	Summative
EOB Clinical Performance Rating	Assessment tool which assesses 8 competencies, comment boxes for each competency, final discipline decision, and the overall content box	Completed by CDs/designated preceptors at the end of the clerkship vis CAS	Summative
Case log	A record of patient encounters that include conditions and procedures	Documented by student about the types of patient encounters and what the level of participation was involved with each encounter. OCA keeping track of the completion in CAS	Summative
Formative /Cumulative Assessment	Log-based assessment assessing patient care, knowledge, communication, professionalism, teamwork, SBP, and Reflective practice. The form includes comment boxes for each question as well an overall comment box.	Completed by preceptors during the block via CAS and reviewed by CDs/designated preceptors	Formative
Self Assessment	Four personal reflective questions regarding meeting requirements, strengths, areas for improvement, and additional comments.	Completed by students at the middle of the clerkship via CAS and reviewed by CDs/designated preceptors	Formative
Mid-clerkship Assessment	Three major questions including summary, satisfactory/unsatisfactory, and comments as well as students' self assessment	Completed by CDs at the middle of the clerkship via CAS	Formative
Neurological Exam	Required observation during clerkship	https://portal.cclcm.ccf.org/cclcm/eportfolio/a_c2_assess.aspx?formid=333	Formative
Student Evaluation of Clerkship	An evaluation survey eliciting student feedback on the quality of their experience with a focus on content delivery, required observations, workload, the learning environment, and strengths and areas for improvement	Completed by students at the end of each rotation (delivered in Qualtrics)	Summative
Student Evaluation of Clinical Faculty	An evaluation survey requesting global ratings and comments for improvement for faculty preceptors	Complete by students at the end of each rotation; the number of required faculty evaluations varies by clerkship (student expectation in CAS)	Summative

Section C: Student Performance

Illustrate data collected clearly & concisely (presentation of data) and include a narrative and table/figure with averages, percentages, and/or inferential statistics as appropriate to the tool.

- 1) Regarding student mid-clerkship feedback, please indicate who is responsible and the method used to meet with students from each site during the rotation.

Site	% of completion (from CAS)	Person/title who communicated with students (e.g., clerkship director, designate preceptors, etc.)	Approach that communication was completed (e.g., in person, phone, video conference)
CCF	100%	Chen Yan MD, Rob Wilson DO	In person
MHMC	83%	Clerkship Director	Phone
UH/VA	100%	Clerkship Director	In-person or via Zoom

- 2) Please provide the average and the minimum/maximum number of weeks it took for students to receive final grades in LMS during the timeframe under review for each site.

Site	Minimum	Maximum	Average	EOR posted in LMS within 6 weeks (%)
CCF	4.5	5.0	4.625	100
MHMC	4.5	5.0	4.67	100
UH/VA	4.5	5.0	4.67	100

Section D: Evaluation Outcomes

Reflect on the aggregated quantitative and qualitative data from the End of Rotation Survey results during the prior academic year. Quantitative data are provided in the table below. Reflect and summarize student feedback on the strengths and areas of improvement for each clerkship site.

		RR 100%	100%	100%	100%
		Overall	CCF	MHMC	UH/VA
The overall quality of their educational experience during this clerkship (good or excellent)		93%	100%	88%	90%
Clerkship orientation prepared me to assume the duties and responsibilities of the clerkship. (Agree or Strongly agree)		88%	98%	67%	90%
I received clear learning objectives.		90%	96%	71%	94%
Faculty provided me with effective teaching. (Agree or Strongly agree)		86.3%	96%	90%	86%
Faculty provided me with effective teaching. (Agree or Strongly agree)		92.8%	99%	94%	92%
Being observed doing the relevant portions of a history (Yes)		97%	100%	92%	97%
Being observed doing the relevant portions of a physical or mental status exam (Yes)		98.3%	100%	94%	99%
Please summarize and discuss the students' narrative comments related to the Strengths of the clerkship:					
CCF	<p>We meet with the students weekly as Clerkship Directors and take their feedback with rapid implementation. The students have our email and phone number that allows them to be accessible to the Directors for immediate care and response. We have used these aspects to have the most ideal learning and safe workspaces for the students. We have from this feedback placed students on less crowded services, more regional, not utilize some preceptors, improved stroke service, added neurological exam workshop to practice neurological exam, improved seminar on coma that teaches exam in the ICU, allowed students to have a clinical experience based on a specific interest (neuro opth, spine, PMR /have not had this before) and revised our neuro emergency series</p> <p>Strengths: Clerkship Directors meet with students 4 times in 3-4 weeks in-person Journal Club with Alex Rae Grant MD Senior Editor of Dyanemd Professor Emeritus CWRUSOM Neurology Exam Workshop Session Neurological Emergency Series with residents Coma Seminar (approach and care to the neuro exam and mental status in the ICU). Led by APP. Gives opportunity for inter-disciplinary team experience and education. Resident Liaisons Most students will spend time with the Clerkship Director in an outpatient or hospital. Will have history and exam witnessed with received feedback. Student feedback on Diversity /Inclusion/Bias log (student log experience of health inequities). The students will often discuss the cases in our weekly meetings.</p>				
MHMC	<p>Wide range of experiences/services.</p> <p>Bedside teaching and direct interaction with the attendings.</p>				

	<p>Attendings are approachable, dedicated teachers.</p> <p>Clear expectations, good orientation.</p>
UH/VA	<p>Good teachers, particularly residents. Friendly preceptors. Good variety of patients. Interactive, case-based vignettes for didactics.</p> <p>ChatGPT Summary: Medical students provided positive feedback on their neurology clerkship experience, highlighting great teaching and support from residents. They appreciated the variety of experiences in different aspects of neurology, engaging didactic sessions, and clear orientation. The clerkship director, Dr. Xiong, received praise for effective communication and creating a constructive learning environment. The students valued their interactions with residents and their involvement in patient care, as well as the opportunities to learn and practice neurology skills. The clerkship was considered well-organized, and students felt well-prepared for their shelf exam. Overall, the clerkship received high marks for its teaching, clinical exposure, and engaging didactics.</p>
Please summarize and discuss the students' narrative comments related to the Areas for Improvement:	
CCF	<p>Goal is to expand more outpatient experiences, but challenge is to have ideal medical student preceptors for teaching and balanced by demands of RVU (less clinical time allocated for teaching)</p>
MHMC	<p>Some services were noted to be more "shadowing", particularly pediatric neurology and neurosurgery.</p> <p>Difficult to get written feedback.</p> <p>Unclear expectations and orientation.</p>
UH/VA	<p>Problems created by shortened rotations: not enough chances to demonstrate proficiency, hard to get used to a team, too much switching around. Teams are too crowded with learners. More outpatient neurology desired.</p> <p>ChatGPT Summary: Medical students provided feedback on their neurology clerkship experience. They faced challenges with EMR access, desired more outpatient exposure, and had difficulty obtaining feedback from residents and attendings. Communication and expectations between students and teams were lacking, leading to missed learning opportunities. The clerkship felt disorganized at times, impacting orientation and didactic sessions. Some students felt that large team sizes hindered their involvement, while others expressed a need for better access to written feedback. They suggested having more chairs during conferences, reducing the number of learners per team, and enhancing organization and communication for didactic sessions.</p>

Section E: Action Plan I – Implementation of Past Improvements

List planned actions from previous cycle, status & outcomes of the implementation

Site	AY2021-22 Planned Change	Accomplished? (Yes/No)	Outcomes or Reason not accomplished
CCF	More development of outpatient opportunities and regional site development	Yes	Still improving and working on this aspect. Challenges has been still with key educators have or are retiring and demand of RVU
CCF	Further listening to the students for feedback on Friday seminar	yes	
MHMC	I will continue to work with our outpatient providers to see if there may be additional learning opportunities there.	no	Infrastructure limitations makes OP clinics not a viable option for students.
MHMC	I'd like to develop more interactive learning sessions.	no	Time/resource limitations
UH/VA	To address the common desire of wanting more outpatient experiences, I plan on exploring the option of having clerkship students at UH attend some of the VA continuity clinics, even if they don't have computer access.	No	No computer access
UH/VA	I will plan on emphasizing to the residents (as a group and individually) to make sure students are given clear expectations at the start of each rotation.	Yes	Hard to assess
UH/VA	I plan on expanding the list of available clinical sub-rotations to include Epilepsy as now all seizure patients are being admitted to that team and not the General Neurology team. Thus the Gen Neuro team census has decreased significantly.	Yes	Students have reported positive experiences on the Epilepsy Service.
UH/VA	We are starting a Google Calendar that students can subscribe to so that they can stay up to date on all didactics, grand rounds, simulation activities, etc.	Yes	Well-received

Section F: Action Plan II – Use of Results for Future Program Improvements

Strategies planned for program improvement; actions designed to improve instruction & curriculum; rationale for action is based on data & analysis of results.

Site	Proposed action	Responsible party
CCF	We have been recruiting more outpatient preceptors actively and are set up	Clerkship Directors
CCF	Working on creating more teaching hospital opportunities in regional hospitals for students. Regional has more straightforward Neurology that helps medical student learning. Currently one student on one site about half per month. Goal as more ideal preceptors /faculty we can have more student opportunities	Clerkship Directors
CCF	Friday Seminars for quality for active engagement of students and meaningful learning (rely on student feedback)	Clerkship Directors
MHMC	Implementation of interactive cases	CD
MHMC	Addition of more in person didactic sessions/"city wide" didactics	CDs
UH/VA	Deployment of a new system to acquire written assessments for the medical students using a quick-access QR code that preceptors can scan. This "Micro-assessment" system will hopefully lower the barriers to completing assessments and result in increased quantity of assessments for students. This will also replace the paper card (Yellow cards) that have been in use for many years as a supplementary system of feedback collection.	Clerkship Director
UH/VA	New medical-student-targeted, resident-facilitated teaching and support sessions by med ed interested residents. This will allow students to run cases and ask questions of senior neurology residents in an open and safe space on anything from neurology topics to career advice.	LME residents
UH/VA	Improving teaching via positive feedback to preceptors by forwarding positive comments written by students on EOR evaluations to respective preceptors.	Clerkship Director

Appendix A: NBME Subject Exam Year-End Report

Appendix B: End of Block Student Evaluation of Clerkship