

## AY 2023-24 Clerkship Annual Report

<b>Clerkship</b>	CORE 3301 Neuroscience
<b>Timeframe under review</b>	AY 2023-2024
<b>Length of clerkship</b>	4 weeks
<b>Clerkship Directors</b>	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 site-specific information, and data highlighted in red indicate areas below the set benchmarks. 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%	22
MHMC	5-10%	90-95%	15
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 alternative methods	% and # of students who did not complete
Altered Mental Status Dementia Dizziness Headache Late Effects of Neurologic Disease Movement Disorder/Parkinson's Disease				All 12 clinical encounters or skills using patients or alternate methods less than 20% of cases in aggregate or at a particular site

Neuroinflammatory/Multiple Sclerosis Neuropathic Pain Nervous System Tumors Neuromuscular Disorder/Neuropathy Seizure/Epilepsy Stroke	
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3) Please describe how faculty and Residents/fellows teaching and supervising medical students at each site were prepared for **teaching and assessment roles** (e.g., the learning objectives, system of student assessment, and required clinical encounters). Also describe how site leadership and faculty receive information about **student performance and satisfaction**. This narrative description may include major activities such as preparation meetings, debriefs, and monthly meetings.

Site	Participants (individual/group)	Topic	When/Frequency	Activity/Outcomes
CCF	Residents	Teaching/assessment	Resident Liaisons meet with residents. Clerkship Director Attends Residency townhalls quarterly to review, give updates on teaching tips, clerkship updates, and feedback guidance	Send out measurable aims:  How we are to measure observe witness relevant history How we are to measure the neuro exam How workday on clinical days will flow for teaching and assessing. Discussed how to do assessment forms and why they are important.
		Performance/satisfaction	We ask students which residents had meaningful impact on education. APPLE: students access and recognize residents relevant feedback in CAS	End of rotation we send email to Program Director in Neuro and resident for being recognized by student (student anonymous)  APPLE: Students recognize residents and faculty annually for relevant feedback in CAS that made a difference to help growth forward. Reviewed completion of timely feedback in CAS and send reminders or speak to residents to complete.
	Faculty	Teaching/assessment	Attend monthly Neurology Education Committee (including residency and fellowship program leaders) with Faculty to give updates on Clerkship and teaching and	Ask students at end of rotation which faculty had impact in education. Student is anonymous but will tell faculty and Chair of this recognition

			assessment Attend meeting of Regional Neurology to give updates and goals/teaching of assessment of Clerkship	Review completion of CAS feedback. Send reminders for CAS via email, in person, and phone call Faculty Development Sessions in the Department Review in CAS student evaluation of faculty. Will meet with a faculty for development APPLE: Students recognize residents and faculty annually for relevant feedback in CAS that made a difference to help growth forward.
		Performance/satisfaction		
	Other clerkship directors, clinical assistant deans, or chairs and site leadership	Student performance and satisfaction		
MHMC	Residents	Teaching/assessment	Weekly.	Residents are given written instruction cards at the beginning of the rotation. These are produced by the GME office for any housestaff supervising students.
		Performance/satisfaction		
	Faculty	Teaching/assessment	Annually and PRN monthly.	Any pertinent changes are addressed at our monthly departmental staff meetings as needed.
		Performance/satisfaction	Quarterly	Addressed at our departmental staff meetings
	Other clerkship directors, clinical assistant deans, or chairs and site leadership	Student performance and satisfaction	Quarterly/biannually	JCOG and biannual education retreat
UH/VA	Residents	Teaching/assessment	Annually	One-hour introductory session near the beginning of each academic year on medical

				student roles, expectations, and assessment methods.
		Performance/satisfaction	Twice a year	Clerkship performance/satisfaction is discussed at departmental education meetings.
Faculty		Teaching/assessment	Annually	Learning objectives, assessment systems, required encounters are discussed at faculty meetings and shared via email.
		Performance/satisfaction	Twice a year	Clerkship performance/satisfaction is discussed at departmental education meetings.
Other clerkship directors, clinical assistant deans, or chairs and site leadership		Student performance and satisfaction		

## 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
Neurological Exam	Required observation during clerkship	<a href="https://portal.cclcm.ccf.org/cclcm/eportfolio/a_c2_assess.aspx?formid=333">https://portal.cclcm.ccf.org/cclcm/eportfolio/a_c2_assess.aspx?formid=333</a>	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 as 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
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) Please complete the data for assessment methods for each site where students complete a rotation for the clerkship. You can find specific information in the Appendix A.

Assessment tool	Site	# of student	Mean	STDEV	# Passing	# Honors Eligible	# remediation	Remediation results
Subject (Passing 60 /EFH 81)	CCF	43	83.1	6.17	15 (35%)	28 (65%)		
	MHMC	42	79.8	10.43	21 (50%)	20 (48%)	1 (2%)	Passed
	UH/VA	94	83.0	7.03	26 (28%)	67 (71%)	1 (1%)	Passed
	Metro LIC	4			3 (75%)	1 (25%)		
	Overall	183	82.2	7.93	65 (36%)	116 (63%)	2 (1%)	

**Provide comparability analysis and summarize patterns of strengths/area for improvement:**

similar passing rates. more variability (larger STEV) at Metro but unknown actual implication

Clinical rating	Site	# of student	% Meets expectations	% Above expectations	% Outstanding	# remediation	Remediation results
	CCF	43	0	4 (9%)	39 (91%)		
	MHMC	41	0	11 (27%)	30 (73%)		
	UH/VA	94	1 (1%)	20 (21%)	73 (78%)		
	Metro LIC	4			4 (100%)		
	Overall	182	1 (1%)	35 (19%)	146 (80%)		

Overall	Site	# of student	% Satisfactory	% Commendable	% CCD	% Honors	% Dissatisfaction
	CCF	43	0	4 (9%)	14 (33%)	25 (58%)	
	MHMC	41	0	11 (27%)	11 (27%)	19 (46%)	
	UH/VA	94	1 (1%)	21 (22%)	18 (19%)	54 (57%)	
	Metro LIC	4			3 (75%)	1 (25%)	
	Overall	182	1 (1%)	36 (20%)	46 (25%)	99 (54%)	
CCLC	<b>Met Expectations</b>		31 (100%)	<b>Unsatisfactory</b>	0		

**Provide comparability analysis and summarize patterns of strengths/area for improvement:**

the variability of distribution for clinical outstanding across sites has reduced since last year.

To Do: Dr. Yan and Dr. Wilson to review final grades together at CCF site

- 2) 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%	Clerkship Director + Assistant Clerkship Director	Telephone: Rob Wilson and Chen Yan split the list and call students

MHMC	100% (initially reported as 90% from CAS error)	Ted Bowen/Clerkship Director	Telephone. I personally speak with every single student. If a student does not call for their scheduled time slot, it is rescheduled. I have personally conducted the session for every student.
UH/VA	100%	Clerkship Director	In-person or via Zoom

3) 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	4.4	4.4	4.4	100%
MHMC	4.4	4.4	4.4	100%
UH/VA	4.4	4.4	4.4	100%

## Section D: Evaluation Outcomes

Reflect on the aggregated quantitative and qualitative data from the End of Rotation Survey results (Appendix B) during the prior academic year. Quantitative data are provided in the table below indicating Good/Excellent or Agree/Strongly Agree. 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 your educational experience during this clerkship (Good or Excellent).		90	89	90	91
The clerkship was well organized.		94	97	91	92
The clerkship director clearly explained the expectations for medical students.		98	97	100	96
The clerkship provided me with sufficient opportunities to achieve the stated goals and objectives.		92	96	89	93
I was satisfied with the clinical skills instruction I received during the clerkship.		94	97	89	95
Grading procedures were clear.		90	94	91	87
I was satisfied with the amount of formative feedback (e.g., mid-clerkship) I received during the clerkship.		85	93	81	80
I was satisfied with the quality of formative feedback (e.g., mid-clerkship) I received during the clerkship.		87	94	83	83
Faculty provided effective teaching.		94	96	98	91
Residents and Fellows provided effective teaching.		93	92	94	95
<b>Please summarize and discuss the students' narrative comments related to the Strengths of the clerkship:</b>					
CCF	We provide a psychological safe and many opportunities to learn clinical neurosciences. Students have many clinical spaces to learn, practice clinical skills, develop professionalism and communication skills, foster teamwork, and advance their academic development. The students have access to resident liaisons who work closely with them to give support and guidance. The students have proximity to the Clerkship Directors by weekly meetings, Journal Clubs, phone calls, emails, orientations, mid rotations, end of rotations, and immediate issues to address. We have many Clerkship 'specific seminars. We foster a trainee to grow and develop clinically and understand how to navigate uncertainty (typical of this specialty 's work) .				
MHMC	Summary from ChatGPT: This neurology clerkship provided students with a well-organized, immersive experience across various specialties such as adult neurology, neurosurgery, pediatric neurology, and PM&R. Students praised the program for offering hands-on opportunities to manage patients with neurological conditions, autonomy in patient care, and strong support from engaged faculty and residents. The rotation was enriched with virtual didactics, extensive practice with neurological exams, and one-on-one teaching moments. Additionally, the consult service and independence to explore specific areas of interest, such as stroke management, were highly valued. Overall, the clerkship fostered a deep respect for the field and strengthened students' clinical skills.				
UH/VA	-Diverse Pathology Exposure: Students appreciated the opportunity to see a wide range of neurological conditions across multiple teams and settings, including inpatient, outpatient, and call.				



	<p>-Strong Teaching and Mentorship: Many comments highlighted the dedication of residents and attendings to teaching. Students valued the structured teaching, proactive guidance, and patient-centered learning provided by enthusiastic and knowledgeable mentors.</p> <p>-Interactive Didactics: Didactic sessions, particularly those featuring interactive, case-based learning (e.g., vignettes), were a favorite among students.</p> <p>-Clear Structure and Expectations: The clerkship was consistently praised for its organization and clear communication of expectations, making it easier for students to integrate into teams and maximize learning.</p> <p>-Opportunities for Autonomy: Students valued being allowed to take ownership of patient cases, make contributions to care plans, and develop confidence in patient care under supportive supervision.</p> <p>-Welcoming Environment: The overall culture was described as supportive and inclusive, with residents and faculty who were approachable, kind, and invested in students' learning and well-being.</p> <p>-Hands-On Learning and Skill Development: The clerkship provided ample opportunities for students to practice neurological exams, clinical reasoning, and imaging interpretation, strengthening their foundational knowledge and skills.</p> <p>-Convenient and Practical Amenities: Amenities like lunch during noon conferences and accessible evaluation tools (e.g., QR codes) were appreciated as helpful additions to an already well-organized clerkship.</p>
<p>Please summarize and discuss the students' narrative comments related to the Areas for Improvement:</p>	
CCF	<p>Working on more time designated for mid-rotation feedback one on-one. More specific aims for the student. Challenges of organization have been based on the impact of still of loss of staff from retirees and long-term aspects of COVID /attrition. Goal as we obtain more core and permanent hires, we will have more stability to have better organization. Working a more stable outpatient experience for the students that will reduce some of the organizational issues.</p>
MHMC	<p>Summary from ChatGPT:  Many wanted longer rotations in specific areas like adult neurology to build foundational skills, as well as clearer explanations of each service to better match their preferences. There were requests for more hands-on practice, as some rotations like pediatric neurology and PM&amp;R felt more observational than interactive. Students also expressed a need for more formative feedback and in-person or real-time virtual lectures instead of pre-recorded ones. Including all students in communications and rotation activities was emphasized for a more inclusive experience.</p>
UH/VA	<p>-Outpatient and Clinic Experience: Increase outpatient exposure and ensure clinic days are well-structured, with each student paired with a resident and actively involved in patient care.</p> <p>-Clear Roles and Expectations: Clarify student roles within teams and standardize resident engagement, so students know their responsibilities in patient care.</p> <p>-Call and Schedule Adjustments: Reduce weekend call requirements, allowing more balance with weekday shifts for study and self-care.</p> <p>-Grading Transparency: Provide clearer grading criteria and more structured, timely feedback from attendings.</p> <p>-Students expressed desire to do less time at the VA or split their time between the VA and UH.</p>

## Section E: Action Plan I – Implementation of Past Improvements

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

Site	AY2022-23 Planned Change	Accomplished? (Yes/No)	Outcomes or Reason not accomplished
CCF	We have been recruiting more outpatient preceptors actively and are set up	Yes	we've retained existing preceptors and recruited 4 new preceptors across 3 specialties
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	yes	balancing with resident presence now at Hillcrest (new for the residency)
CCF	Friday Seminars for quality for active engagement of students and meaningful learning (rely on student feedback)	Yes	completed survey re preferred format for seminars and adjusted seminars accordingly
MHMC	Implementation of interactive cases	Yes	Aquifer cases were incorporated into didactics and as an alternative to logging any missing core conditions.
MHMC	Addition of more in person didactic sessions/" city wide" didactics	No	Due to scheduling restrictions, these were deferred for now.
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.	Yes	Positive feedback from students and assessors so far.
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	Yes	Not many clerkship students showed up to these. Mostly attended by elective

	safe space on anything from neurology topics to career advice.		and visiting students.
UH/VA	Improving teaching via positive feedback to preceptors by forwarding positive comments written by students on EOR evaluations to respective preceptors.	Yes	Seems to be appreciated by recipients.

### 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	Working on more outpatient clinical experiences	Wilson/Yan
MHMC	<ul style="list-style-type: none"> <li>Development of Neuroimmunology and refinement of “dizziness” module for didactic curriculum.</li> <li>Incorporating more Aquifer cases into the didactic modules.</li> </ul>	Ted Bowen/CD
UH/VA	In order to improve rates of return on feedback requests, there needs to be more communication and encouragement from the clerkship director to faculty and residents.	Clerkship Director
UH/VA	Allow students to rotate at the VA for only 2 weeks at a time so that they can get some UH experience with higher acuity patients.	Clerkship Director/VA faculty
UH/VA	Students will have more self-study time on Friday afternoons and the Thursday afternoon before the Shelf Exam.	N/A
UH/VA	Improve communications with students by posting useful information and schedules online (Elentra and clerkship website)	Clerkship Director/Coordinator

Appendix A: NBME Subject Exam Year-End Report

Appendix B: End of Block Student Evaluation of Clerkship