EMERGENCY MEDICINE

CLERKSHIP COORDINATORS

HANDBOOK

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INTRODUCTION

Thank you to all of the clerkship coordinators in Emergency Medicine. You pour your heart and soul into a difficult job day in and day out. Not enough praise or gratitude comes your way for the job that you do. Instead, you are more often faced with questions, problems, and concerns. Despite this, you do not preach, but lead by example. You demonstrate to students how a professional should speak and behave. You show your department and school how to organize and prioritize. You prove to the clerkship director why you are indispensible. Advocate, Problem-Solver, Facilitator, Manager, Planner, and Counselor are all other names that you can be called. However, the one name we forget to use for you is Educator. Without your hard work, countless physicians would never have been trained.

This manual was created to help the Emergency Medicine Clerkship Coordinator with running the student clerkship. Whether you are a brand new coordinator or a seasoned veteran, our hope is that you will find tips and hints in this handbook that will make your job easier while making the rotation more valuable and educational for the students. The goal was to highlight the main issues and concerns that a coordinator will face in running the Emergency Medicine clerkship. We hope this handbook has met that goal.

Thank you to Jeanette Ebarb, Jim Graber, and Sharon Pfeil for their time and dedication for writing chapters and contributing to this handbook. Special thanks to the CDEM Executive Committee for the thankless task of reviewing this manual and providing great recommendations. Final thanks to David Wald for having the vision for this project and then having the tenacity and patience to provide support and invaluable editing.

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JOB DESCRIPTION OF THE CLERKSHIP COORDINATOR

Student Scenario

Clerkship Director: "Can you please send me the e-mails of the students rotating on this block?"
Coordinator: "No problem."

Clerkship Director: "Oh, and can you let the residents know about the change in the grading policy for the students?"
Coordinator: "I handed out paper copies of the new student grading policy to the residents two days ago."

Clerkship Director: "Great! You're two steps ahead of me. We also need to meet in the next few days to talk about any changes we might want to do for the clerkship for the new academic year"
Coordinator: "I'll take a look at both of our schedules and schedule a meeting."

Clerkship Director: You are the best! One more thing. The medical school wants a job description for all clerkship coordinators. Can you please write that up and send it to them?"
Coordinator: "Um.......I guess so......."

As the clerkship director walks away, the coordinator wonders what exactly is their job description. What are a coordinator's exact responsibilities? What are their primary duties? How does a coordinator describe all the things that they do every day to make the clerkship run effectively?

Introduction

The emergency medicine clerkship cannot function without an adept clerkship coordinator. The clerkship coordinator is in charge of the daily operations of the clerkship as well as the organization of each clerkship rotation throughout the academic year. Planning must occur months in advance so that something as simple as a single lecture will occur at the right place and time with every rotation. In addition, clerkship coordinators must know how to deal with situations such as the anxious student looking for their computer password, medical school administrator asking for grades, and the occasional apathetic faculty member not handing in their student evaluations in a timely fashion.

Not everyone can be a clerkship coordinator. A special individual is required to deal with the ever increasing difficulty of tracking student experiences and evaluations in accordance with medical school rules and accreditation standards. This individual must possess a unique set of skills that will enable them to successfully run a clerkship.

The Clerkship Coordinator and the Clerkship Director

Clerkship directors need competent and skilled clerkship coordinators for an organized and effective emergency medicine clerkship [1, 2].   Clerkship directors should be able to trust and rely on their coordinators for the completion of tasks related to running the clerkship. In addition, coordinators must embrace their role as the "face" of the emergency medicine clerkship.   Students may spend more time interacting with the coordinator than with individual faculty members. How a student views the clerkship experience often depends on this interaction with the coordinator.

In return, clerkship coordinators should expect clerkship directors to be clear with what they want to accomplish and should be updated regularly on any changes or issues in the clerkship. To accomplish these things, a strong relationship between the clerkship director and coordinator is required. Both must work as a team with constant communication occurring between them. Each should understand the responsibilities of the other and not be quick to classify a problem as not theirs. Patience, understanding, and a desire to do what is best for the student and clerkship will be required in both individuals.   A cooperative teamwork approach between the clerkship director and coordinator is essential for a successful emergency medicine clerkship. A way to foster this collaboration is by having regularly scheduled meetings to discuss ongoing clerkship issues.

Clerkship Coordinator Must Know Their Exact Responsibilities

It is important for the clerkship coordinator to know precisely what their responsibilities are. At some institutions, the clerkship coordinator may also have other duties such as being an assistant residency coordinator or having other administrative roles in the emergency department or medical school. If this is the case, it should be specified how much time the coordinator is to devote to each of their assigned tasks. For example, a coordinator's job may entail 85% of their time be towards running the clerkship with the remaining 15% involved with physician recertification paperwork. It is important for a coordinator to know their exact duties as they do not want to waste time and effort on tasks that are not their responsibility. In addition, knowing the time allotment for tasks is important as a coordinator may notice that their other administrative tasks are taking up more time than was initially anticipated by the employer, hindering a coordinator's ability to run the clerkship.

The clerkship coordinator should meet with their employer and the clerkship director if they are unsure of their exact responsibilities. Once the responsibilities are known, an assessment of these responsibilities with respect to accuracy and practicality is required. It may be necessary to develop a formal job description for the clerkship coordinator. If the clerkship coordinator notes that they cannot spend the time and effort necessary to run the clerkship effectively, the coordinator must make this known so that other responsibilities can be decreased or adjusted. If the coordinator does not speak up, it will be assumed that there are no problems and the emergency medicine clerkship and student education may suffer as a result of it.

Essential Skills for Clerkship Coordinators

Many skills are required for a coordinator to effectively run the emergency medicine clerkship. A coordinator can find lists of essential skills in sources such as the chapter on "Redefining the Role of the Clerkship Coordinator" in the Guidebook for Clerkship Directors [1] or the online job description for emergency medicine residency coordinators [3], which can be extrapolated to clerkship coordinators. No matter the source, there are essential skills that every clerkship coordinator should possess to run a successful clerkship. A brief summary is provided in Table A following this chapter. The sections below will address a few of the more important skills.

Communication Skills

All clerkship coordinators must possess excellent communication skills. Any form of communication (verbal, written, or email) from the coordinator must be clear and understandable. Generally, clerkship coordinators want to convey a sense of warmth and trust in their speech. However, coordinators will need to be appropriately assertive and not shy during certain situations such as obtaining evaluations from a resident or faculty member who is neglecting their duty. Clerkship coordinators must also possess the self-confidence to express their views, even when it is a dissenting view, with physicians and coordinators who may rank high on the medical school chain of command. The ability to speak with anyone with poise and assurance is an important skill for each coordinator to have.

Much of the coordinator's communication skills will be geared towards medical students. There is no recommended way to communicate with medical students as methods of communication that worked 4 to 5 years ago may not work with today's generation of students. A great example would be the instant communication tools that today's student rely on that their predecessors did not have such as blogs, texting, and twittering. Clerkship coordinators need to learn what are the best ways to communicate with students and may need to familiarize themselves with new communication technologies. Once they have learned this, coordinators should create an environment that allows students to freely bring up any issues or concerns via these new mediums.

Information provided by students, faculty, and residents about the clerkship should be conveyed directly to the clerkship director. Informal discussions between a clerkship director and the coordinator should occur every few days whether it be in person or via email. Issues or problems concerning the clerkship will require more frequent discussions. During these discussions, the coordinator should not be afraid to make suggestions as the running of the emergency medicine clerkship is a partnership between the director and coordinator. More formal or planned meetings should occur near the end of each rotation and prior to the start of a new academic year. This constant communication will ensure that the coordinator and clerkship director are on "the same page".

Interpersonal Skills

Clerkship coordinators must possess excellent interpersonal skills as they interact with a variety of people. Strong interpersonal skills can help coordinators be flexible in dealing with people such as a chairman of the department to the person who is responsible for cleaning the lecture rooms. While the authority levels and job titles may differ, each person is integral to a successful clerkship and a coordinator must be adept at knowing how to deal with them all.

In order to achieve good working relationships with the people that affect the clerkship, a coordinator needs to be warm and outgoing. A coordinator with a friendly demeanor makes it easy for people to work with them. In addition, good listening skills are paramount as a coordinator needs to gather information from multiple people in order to make the most complete assessments and decisions about the clerkship. Patience and the willing to compromise will be necessary in certain situations. Moreover, a "can do" attitude with regards to any issues or problems that people bring to the attention of the coordinator is required. All of these interpersonal skills allow a clerkship coordinator to create a warm and friendly environment that is conducive to the education of students.

With regards to students, clerkship coordinators need to provide an understanding and caring attitude. Many of these students, especially those pursing a residency in emergency medicine, may be placing a large amount of pressure on themselves to perform well on the clerkship. Occasionally, this may cause the student to act in a manner that is annoying to a clerkship coordinator. A fair amount of sympathy and compassion may need to be shown. However, the coordinator will still need to be assertive in order to ensure that students are behaving in a professional manner towards them. Any unprofessional behavior from a student towards a coordinator is unacceptable and requires the direct attention of the clerkship director.

Organizational Skills

Having a system that organizes all the paperwork that is necessary to run a clerkship is vital for a clerkship coordinator. All shift evaluation cards and other forms of formal evaluation must be collected and organized in a timely manner in order for the clerkship director to provide the student with mid-clerkship and formative feedback. Paper copies of the summative evaluation and final grades need to be filed for each student after the end of each rotation. Student evaluations of the clerkship should be saved for the clerkship director to view in order to make improvements to the clerkship. Furthermore, collection of information such as student curriculum vitae and personal statements is required for clerkship directors to write letters of recommendation. This enormous amount of paperwork requires a coordinator to have a system for collecting and logging of items so that they can be retrieved quickly and easily.

Electronic files will also require a system for organization. Any files that are posted on the course website or course management software must be categorized and saved on the computer. Templates for emails sent to visiting students should be saved to cut down on time and effort of crafting a new email every rotation. The clerkship coordinator is well served to save certain emails that pertain to the clerkship in case of issues in the future. A system to send reminder emails for the dates and times of lectures given by faculty members for the students may need to be organized via a program such as Microsoft Outlook®. Further information about

the organization of lectures is given in Chapter 3: "Lectures and Laboratories: Content, Organization, and Scheduling".

Student Advocacy

One of the primary roles and skills that a clerkship coordinator must possess is that of student advocacy. The coordinator is in a perfect position to assume this role as they are the individual that students have the most interaction with. Student advocacy means that a coordinator should work in terms of the best interests of the students. It entails listening to student concerns and acting in a manner that will aid the student and make their educational experience better. To achieve this, a clerkship coordinator must be available for students whether via email or in person. A kind and inviting attitude will allow students to trust the coordinator and provide information that can be used for student advocacy.

With regards to the clerkship, there are many opportunities for a coordinator to be a student advocate. Providing all the details of the clerkship with an emphasis on ensuring that students understand their clerkship responsibilities is one opportunity. Arranging for timely feedback that will help the student develop and perform better is another way to be an advocate. Coordinators should ensure that residents and faculty members are providing a professional environment for students to learn in. Removing a student from an unprofessional site or reassigning them to a more attentive mentor will show the student that the clerkship coordinator is working in their best interests.

Advocacy can also be shown in student career mentoring. Coordinators should be able to provide resources about a career in emergency medicine. Students can be paired with faculty members who can guide students with career advice. A session on a career in emergency medicine can be set up by a coordinator where students can see what are the advantages and disadvantages to working in emergency medicine. Later, a session on interviewing can be held which helps students overcome their fears of what will occur on residency interviews.

Computer and Equipment Skills

Numerous computer programs and equipment are used in a clerkship today. Clerkship coordinators must be at ease and show expertise with Windows applications, word processing, spreadsheets, audio-visual equipment, and other office equipment. Coordinators should also be aware of how to use any programs that are essential to the clerkship such as course management software (more information is provided in Chapter 6: "E-Learning: the use of course management software chapter"). Students that are having trouble with these clerkship programs will initially turn to the coordinator for help. It will make things easier and save time if the coordinator can troubleshoot the problem themselves rather than referring the student to someone else.

Coordinators should also be aware of what technology students are using today. It is imperative for a coordinator to be an expert at email. However, if students are not using email or checking their email routinely, then time sensitive messages may be missed. It may help for a coordinator to become familiar with twittering or blogging if students are primarily receiving

their communication via those methods. Knowing what tools the students are using will help coordinators help design programs that can make the clerkship more successful and cut down on miscommunication.

Conclusion

Clerkship coordinators are absolutely integral to a successful emergency medicine rotation. They must possess a unique set of skills centered on communication, interpersonal relationships, and organization. Coordinators who possess all of these skills are invaluable to their department and can help advance student education.

Key Points

- The clerkship coordinator and director must work as a team with constant communication occurring between them in order to provide a successful clerkship
- Clerkship coordinators should know their exact responsibilities and the time that is allocated for each responsibility
- Having good communication skills is essential in all coordinators, especially with medical students
- Strong interpersonal skills allow coordinators to work with a variety of people and ensure good relationships with people who impact the emergency medicine clerkship
- A system to organize all of the paperwork and electronic files is required so that information can be quickly and easily retrieved
- Coordinators are in a position to be a student's best advocate via the clerkship and career counseling
- Strong computer skills are necessary to be a clerkship coordinator
- Being aware of what electronic equipment students are using to communicate and knowing how to use them can help a coordinator ensure that important information about the clerkship is relayed to the students in a timely fashion

References

1. Beck GL, Cleppe V, Marts L, et al. Redefining the role of the clerkship coordinator. Guidebook for Clerkship Directors 3rd edition. Alliance for Clinical Education. 2005. Online. http://familymed.uthscsa.edu/ACE/chapter11.htm. Accessed March 23rd, 2010.

2. Bruynell KL, Chandler MS, Gotto JL, et al. Job description and role of the clerkship coordinator. A guidebook for clerkship administration. Clinical Directors in Internal Medicine. 2008. Online. http://www.im.org/Publications/Staff/Documents/ Guidebook.pdf . Accessed February 3rd, 2010.

3. Job description. Emergency Medicine Association of Residency Coordinators. Online. http://www.em-arc.org/job.html.   Accessed March 26th, 2010.

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Table A. Summary of Essential Skills for a Clerkship Coordinator

ESSENTIAL SKILL	ACTION / BEHAVIOR	MASTERY OF	ASSIST WITH	KNOW OF
Communication	• Clear and understandable verbal speech	X		
	• Organized and legible writing	X		
	• Appropriately assertive speech in certain situations	X		
	• Able to relay information to students, residents, faculty, and coordinators	X		
	• Ability to communicate with students using new methods such as twittering, blogs, etc.		X	
Problem-Solving	• Being proactive in solving issues concerning the clerkship	X		
	• Anticipating any future issues and seeking solutions now	X		
	• Working in a team with the clerkship director, faculty, and students on any issues	X		
	• Compromising and resolving any conflicts	X		
Advocacy	• Ensuring students understand their responsibilities on the clerkship	X		
	• Checking on separate sites to ensure equitable educational experiences	X		
	• Providing constructive feedback to the students		X	
	• Ensuring impartial and just evaluation of each student		X	
	• Supporting a student during a major life event (family death, illness, etc.)	X		
Advising / Mentoring	• Helping student be set up with an advisor		X	
	• Advising students on applying for a residency in emergency medicine			X
	• Providing resources for students applying to a residency in emergency medicine		X	
	• Setting up information meetings for students considering emergency medicine as a career		X	
	• Recognizing a student having trouble with the clerkship that will require mentoring	X		
Organization	• Collecting and filing all paperwork (such as evals, grades, etc) integral to the clerkship	X		
	• Organizing all electronic files on the clerkship	X		
	• Scheduling all lecture dates and rooms	X		
	• Prioritizing tasks related to the clerkship	X		
	• Handling all paperwork as related to visiting students	X		
	• Preparing final grades		X	

Table A (continued). Summary of Essential Skills for a Clerkship Coordinator

ESSENTIAL SKILL	ACTION / BEHAVIOR	MASTERY OF	ASSIST WITH	KNOW OF
Curriculum Development	• Help the clerkship director develop a medical student lecture series		X	
	• Understand the LCME standards that can affect the student curriculum and clerkship			X
	• Organize educational resources (handouts, powerpoint files, etc)	X		
	• Know the objectives of the clerkship and ensure that residents and faculty members are also aware of them	X		
Interpersonal Skills	• Possess an empathetic and friendly demeanor towards students	X		
	• Be willing to collaborate with many different people to meet the goals of the clerkship	X		
	• Have listening skills that will allow you to gain information to solve any issues / concerns	X		
	• Serve as a role model by demonstrating professional behavior	X		
Technical Skills	• Have competence with using Windows applications, word processing, and spreadsheets	X		
	• Be able to setup and use audio-visual equipment	X		
	• Help utilize scheduling software and/or patient encounter tracking programs		X	
	• Understand the use of blogs, twittering, and new forms of communication			X
	• Help develop modules and educational material for placement on the course management software		X	

Emergency Medicine Clerkship Orientation

Student Scenario

The clerkship coordinator is helping out with orientation. As they hand out the orientation packets, they notice that one of the visiting medical students is not there. A phone call is made, but the only answer is the student's voicemail. The coordinator then fires off a quick email to the student to inquire about their whereabouts but then recalls that this student had not replied to any of the emails that were sent to them. The student must have changed their mind about the clerkship. The coordinator thinks nothing of it and continues to help with yet another successful and enlightening orientation.

The next day the coordinator receives a panic phone call from the missing visiting medical student.

Student: "I am locked out of the Emergency Department and I am not sure where to go."
Coordinator: "Where were you at orientation yesterday?"

Student: "When I saw that I wasn't scheduled yesterday, I decided to take a long weekend."
Coordinator (gritting their teeth): "Did you not get my emails stressing the importance of orientation?"

Student: "I only check my email once a week, if that. Did you send me something recently?"

The coordinator heads to the ED to repeat their orientation efforts and get this student clearance for the clerkship.

Introduction

The Emergency Medicine clerkship is like no other clerkship in which the student participates. Even for the most seasoned student, working in the fast paced environment of the Emergency Department can be overwhelming. The rotating shifts, the high acuity, and the approach to the undifferentiated patient are all unique to the ED. Therefore, orientation is an integral part of laying the foundation for a successful clerkship.

Ideally, orientation should occur on the first day of the rotation for all students and should occur prior to working any shifts. This enables each student an equal opportunity to succeed. The student who starts shifts prior to orientation faces many issues which can hinder their education and ultimately sour their emergency medicine experience. Without orientation, a student may not be aware of what their role is and so may not be a valuable part of the ED team. The student also runs the risk of a negative impression from faculty whose expectations are based on a student undergoing orientation and knowing their role and how to see patients in the ED. Without knowing the clerkship goals and objectives that can be obtained during orientation, a student can lose a large portion of their educational experience.

For clerkships with students who will be rotating through multiple sites covering a large geographic area, all the students should be scheduled for orientation at the primary site and then provided a brief orientation at each outlying facility. This ensures that all students understand the requirements to satisfactorily complete the clerkship in the same setting. Following orientation, they can be released to their respective sites. The coordinator should make sure to provide the students with a contact person at each of the outlying sites.

Students should understand that orientation is mandatory. It will identify the objectives and expectations, outline the requirements to satisfactorily complete the clerkship, provide guidance on how to be successful, delineate roles, and provide them with a foundation to be prepared.

Communication

In the weeks leading up to the start of the clerkship, the coordinator should establish contact with the students electronically. To allow for consistency, a templated message can be used to make this exchange of information easier and ensure that you do not forget any important details. An example is shown in Appendix A following this chapter. The message should contain information regarding the time and location of orientation, contact information, policy explaining vacation requests, links and passwords for completing required courses such as HIPPA compliance, infectious disease, and medical record training, and any required reading prior to beginning the clerkship. Be sure to include as much information into as few emails as possible. The students may overlook multiple emails from the same sender. Shortly after initial contact is made, students should be provided with a copy of their schedule or a templated one if they are to create their own schedules. Dates and times of orientation, simulation encounters, and didactics should be highlighted and included on the schedule.

To help facilitate orientation, you should provide the students with a reliable source for answering questions regarding the rotation. This can be in the form of a clerkship website, orientation packet, or guide to the rotation / clerkship syllabus. Be sure to provide a contact for additional questions. It is also helpful to establish one means of communication for relaying changes that may occur during the clerkship. This can be via telephone, pagers, email, the course website, or even twittering. Be sure that the students are made aware to check daily for any updates.

Topics for orientation

Below is a list of topics that should be discussed during orientation

* Description of the clerkship
* Goals and objectives
* Course materials and expectations, such as distribution of textbooks, reading assignments, journal club, didactic schedule, simulation or procedure lab preparation
* Contact and location information for any auxiliary experiences such as EMS, Ultrasound, Toxicology, Pediatric Emergency Medicine, or others

- Grading process, such as combination of evaluations, examinations, lecture presentation, journal club participation, completion of faculty evaluations, patient and procedure logs
- Copy of clerkship work schedule
- Copy of didactic schedule / student curriculum
- Course policies, such as, dress code, sick days, days off, days off for interviews, schedule changes, contact information, taking breaks
- Tour of the emergency department
- Role of residents vs attendings when staffing patients
- What to expect in the typical day and pearls to success, such as medical student responsibilities, approach to caring for the emergent patient, presentation skills, charting in the medical record, patient follow-through, where to find diagnostic results, patient communications, on-line tools, calling consults, and end of shift check outs
- Computer logons, access to radiographic images and labs
- Chart documentation - Please see Chapter 5: "Medical Student Documentation: Paper Charts and Electronic Medical Records (EMRs)
- Evaluation requirements (both of the student and the course / faculty)

Visiting Medical Students

Students from your home institution should already have clearance to work in your facility. However, students may choose to rotate at your facility from other schools to "audition" for residency or simply to fulfill a course requirement that is not available at their home school. Orientation and communication with these students will be much more involved. Fortunately, many institutions have a visiting medical student department that handles the applications of students from other schools. The Office for Visiting Medical Students can be very helpful in coordinating much of your orientation and credentialing process. This can included anything from HIPPA and EMR training to security clearance, housing, parking passes, and hospital identification badges. If your institution does not have an identified staff for visiting students, you should contact your Human Resources office or Office of Student Affairs to obtain a list of all of the information that the coordinator will be required to obtain for clearance for these students. Further information can be found in Chapter 10: "Visiting Students".

Student Guide

As the Emergency Department can be intimidating, it is helpful to the students to have a survival guide filled with pearls to help them succeed. This manuscript would supplement the information covered in orientation. It can be posted on the website as well as sent to the students prior to the start of their clerkship. This is a handy tool to help make orientation flow and may answer many of their questions ahead of time.

Topics to include in your guide:
- Review of goals and objectives
- Example of a typical day

- Approach to management of the emergent patient
- Outline of the student's responsibilities
- Advice on presentation skills
- Course policies, such as, dress code, sick days, days off, schedule changes, contact information, taking breaks
- Samples of charting, patient logs, procedure logs and shift evaluations
- Answers to frequently asked questions
- Appropriate ways to sign out patients
- Reading lists
- Links to educational resources
- Tips for preparing a presentation
- Contact information

Days Off

A policy regarding days off (excused absences) should be presented to the student early in the orientation process, preferably before the clerkship begins. This is an important topic to be discussed with the students. Many students participating in EM clerkships are fourth year medical students. Early on in the academic year, these students will be scheduling residency interviews and may present you with numerous requests for days off. It helps to let the students know weeks before the rotation how many days off they can schedule and still pass the rotation. Also, you must decide how you will manage requests after the schedule has been created. It is best if you require the students to swap shifts on their own to keep from being inundated with requests.

Conclusions

The processes identified here are intended to help the clerkship coordinator prepare and present a thorough orientation. This will help to prepare the students for a successful clerkship and rewarding educational experience.

Key Points

- Orientation should occur on the first day of the rotation
- It may help to require all students to attend orientation on the first day of the rotation
- Weeks before the clerkship begins, students should be emailed a template letter that describes the requirements of the rotation and gives details on any paperwork that must be completed prior to the start of the rotation
- The coordinator should make sure that topics such as goals and objectives, dress code, schedule changes, sick days, etc. are discussed during orientation
- It may be helpful to have a student survival guide that gives students tips on how to be successful on the clerkship

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Appendix A. Example of Template Letter emailed to students

Welcome to your Emergency Medicine clerkship!

This email with its attachments explain all that is required of you **before coming to *Facility name* and upon arrival.**   You need to read and consider the attached information to decide whether or not to accept the rotation. If you do accept, you'll want to make a good impression your first day. That requires arriving on time and prepared. So before coming carefully and thoroughly work through this email.

Your first stop at *Facility name* will be the *Visiting Medical Student Office* for Check-in, at which time you will get access cards and a badge *and etc*. You must complete Check-in before you can begin your rotation.

If you have never rotated at *Facility name* before, print out the attached arrival schedule and maps. Complete the attached forms and bring them to Check-in.

Bring the attached Arrival Schedule/Directions to Check-in. You should keep this email and attachments handy throughout your rotation so you have the information available while you're here.

Within the 2 weeks before arrival and at least 3 days prior to Check-in you must complete the on-line tutorials from the list below. These can be accessed through the following link: *provide link here and any logons or passwords* necessary. You might want to put a reminder on your calendar now so you remember. Completing all will take about # hours, instructions for completing the tutorials are in the attached guide.   If you encounter problems, **call the HelpDesk** as listed on the Guide because only they can resolve the problem.

Mandatory orientation in the Emergency Department will be *Date and TIME*. You will meet *Contact name* at *Orientation Location*. Put a reminder on your calendar.

If you are planning to be gone any days during your rotation, read the Attendance section in the orientation guide and immediately call *contact person and information*.

Within 2 weeks, please confirm whether or not you will be attending the rotation. If so, include the *number to the mobile device, pager, twitter, etc* you will use while here so we have a way to contact you for emergencies. Please read the attached Orientation Packet/Survival Guide prior to arrival. In addition please read *list any prerequisite learning instructions here. I add links to the NEJM Procedure website for reviewing a list of procedures that will be performed during a Procedure Bootcamp during Orientation.*

Once I hear from you, I will send an email confirmation for the rotation and further arrival instructions.

Attachments: Arrival_Schedule, ELearning_Guide, Maps, Orientation_Packet, Paperwork_to_fill_out

Lectures and Laboratories:
Content, Organization, & Scheduling

Student Scenario

The students have been waiting for 20 minutes in the lecture room for their "Approach to chest pain" lecture. The clerkship coordinator hears the students becoming restless as one of them mutters, "Why do they ask us to be on time when they aren't?" The coordinator gives a deep sigh as they pull up the faculty phone list and call Dr. Smith who is supposed to be giving the "Approach to Chest Pain" lecture.

Dr. Smith: "Hello?"
Coordinator: "Hi, Dr. Smith. I'm calling because you were scheduled to give the "Approach to Chest Pain" lecture today at 9am. The students have been waiting for the past 20 minutes."

Dr. Smith: "What?! I'm supposed to be lecturing at 10am. Dr. Jones has the 9am lecture."
Coordinator: "But according to the monthly schedule you are listed at 9am with Dr. Jones at 10am."

Dr. Smith: "That was for last block when Dr. Jones had a meeting and couldn't do the 9am lecture so I did it. This block, I'm 10am and Dr. Jones is 9am."
Coordinator: "But I had sent a reminder at the beginning of this month if there were any issues with lecture dates and times. Neither you nor Dr. Jones responded that the times were incorrect."

Dr. Smith: "I didn't open the attachment that had the lecture times and dates. I figured I didn't need to as there were no changes in my schedule. You know, I get a lot of emails and I can't open and read all the attachments unless you tell me it's important."

Coordinator *(trying to keep their voice level and calm)*: "I'll give Dr. Jones a call."

Dr. Jones: "Hello??"
Coordinator: "Hi, Dr. Jones. I'm calling because the students have been waiting for 20 minutes for their 9am lecture. Dr. Smith said you are scheduled for the 9am lecture."

Dr. Jones: "What!! I thought he said last block that he was always going to do the 9am lecture and I would have the 10am lecture. No, I'm pretty sure he has the 9am lecture."
Coordinator: "I just called and talked with Dr. Smith. He said that was only for last month. Can you come in and do your lecture?"

Dr. Jones: "Even if I left now, I would get there at 9:45am and I can't do the lecture in 15 minutes. Just cancel the lecture. I'm sure the students and the clerkship director won't mind."
Coordinator: "I'll let the students and the clerkship director know the lecture has been cancelled."

This happens every month the coordinator wonders. How can we fix this?????

Introduction

One of the most time consuming and stressful components of the emergency medicine clerkship involves the organization of the medical student lectures and labs. The clerkship coordinator serves as the point person who ensures that every lecture and lab occurs without a hitch each block. Constant communication is required between the students, lecturers, and the clerkship director who is ultimately in charge of the student curriculum. The clerkship coordinator needs to plan events months, if not a full year, in advance to ensure that lecturers, rooms, and equipment will be available.

Overall Clerkship Goals and Objectives

The goals and objectives for the emergency medicine rotation are essentially a list of what a student is expected to learn or skills that they need to develop during their rotation. There is a movement towards medical student goals and objectives being based on the Accreditation Council for Graduate Medical Education (ACGME) core competencies which is currently used as a framework for emergency medicine resident education [1]. Each medical student goal or objective can be based on one of the following six ACGME core competencies;

1. Patient care
2. Medical knowledge
3. Practice-based learning
4. Interpersonal and communication skills
5. Professionalism
6. Systems-based practice

The clerkship coordinator should help the clerkship director make the goals and objectives for the rotation clear and succinct. It is very important that the goals and objectives are given on the day of orientation and easily accessible during the rotation via the clerkship webpage or course management software such as Blackboard®. This prevents students from using the excuse that they were not made aware of the objectives or did not have access to them. The clerkship goals and objectives should also be linked to those of the medical school if your program is directly affiliated with the medical school.

An example of the goals and objectives based on the ACGME core competencies is given in Appendix A.

What Lectures? What Labs?

A decision must be made on what particular clinical presentations and procedures the students will be required to see on your emergency medicine clerkship. An updated and revised version of a national curriculum for the fourth-year emergency medicine clerkship was published in 2010 and can serve as a valuable resource in this regard [2]. When the required patient

encounters and procedures have been selected, the student curriculum will need to have lectures or labs that provide the students specific knowledge and guidance when faced with those particular clinical encounters and procedures. The clerkship coordinator will need to aid the clerkship director in determining how these topics will be addressed and taught. The strengths and weaknesses of the faculty and clinical site need to be considered when trying to address which topics will be taught and how [3].

The median number of lecture hours provided each student block on an emergency medicine rotation is 10 hours [4]. The clerkship coordinator will have to be organized to schedule all this lecture time while ensuring the students still have ample clinical time.

For classroom-based lectures, the following must be made ready;
- Classroom (will need to be reserved months in advance)
- Computer (if Powerpoint® presentation is to be done)
    - Computer power cable
    - Cable to connect computer to overhead projector
- Overhead projector
- Laser pointer
- Handouts of lecture for student (if the lecturer provides them)

For procedure labs, a short list of suggestions for materials that may be needed for each specific lab is given below. The clerkship coordinator should talk with each person who will run each lab for the details on what specific equipment will be required.

Lab	Equipment
Suture	Suture material, suture kit, gloves, object to be sutured (pig's feet, chicken legs, etc), table covering to protect table while suturing
Simulation	Mannequins, airway equipment (laryngoscope, endotracheal tubes, stylets, bag-valve mask), central line kits, pacer pads, IV setups, code cart, simulation lab (all the aforementioned equipment may already be in the simulation lab)
Splinting	Splint material, ace bandages, cling wrap, scissors, plaster, water, gloves
Ultrasound	Ultrasound machines, gel, volunteers, towels (to clean off gel)

Scheduling – Overall

The first thing that can make scheduling lectures and labs easier is to make a year-long calendar prior to the start of the academic year. This calendar should include the following:
- The start and stop dates of each student block
- National holidays that are excused absences for students
- Emergency Department events such as the annual holiday party or a national conference which may prevent faculty from giving lectures
- Medical school events such as cumulative OSCEs or match day where students will be unavailable for most of the day

- Faculty vacations, conferences, and maternity/paternity leaves that will either require another lecturer or a change in date for the lecture

Knowing these dates as far in advance as possible will help the clerkship coordinator arrange the lecture schedule without making last minute changes. Rooms, especially for a very popular room such as a lecture hall or simulation lab, may need to be reserved 6 to 12 months in advance.

Scheduling – Faculty and Resident Lecturers

The clerkship coordinator should give faculty and residents the dates and times of their lectures as far in advance as possible. Optimally, the entire year's lecture dates and times should be given to each lecturer prior to the start of the academic year. This will prevent schedule conflicts due to vacations, conferences, weddings, child care issues, etc. It is easier to accommodate changes to the lecture schedule 4 to 5 months in advance than 2 weeks in advance.

Despite giving faculty and residents such early warning, many will still forget when their lectures are. Solutions to this include sending an email at the start of each rotation to each lecturer about the date, time, and location of their lecture. If the lecturer utilizes Microsoft Outlook®, the date and time of the lecture can be placed on their calendar with a read receipt which ensures that they read your email and are aware of their lecture. If a certain faculty member or resident is routinely late or missing their lecture, the clerkship director should be alerted as soon as possible.

The clerkship coordinator must make sure that all changes to the lecturer schedule go through them. Many errors in scheduling occur because a lecturer switches the date and time of their lecture without realizing that a lecture room or equipment may not be available on another day. Only the clerkship coordinator is aware of the entire student schedule and so all changes must go through them.

Scheduling – Students

The clerkship director needs to let the clerkship coordinator know if there are any rules with regards to student's shift schedules and lectures. Are students excused from their clinical shift during lecture time? Can a student work overnight prior to the next day's lectures? These questions need to be answered and the students should be made aware of the answers on orientation when they are given their lecture schedule. Rules and methods for remediation also need to be in place if a student misses a lecture due to illness or residency interviews. The remediation may involve viewing the Powerpoint® lecture online or a reading assignment. Again, the clerkship director should provide the coordinator with details in regards to missed lectures.

Key points

- The overall goals and objectives need to be given to students on the day of orientation and be made available throughout the rotation

- Consider writing the goals and objectives based on the 6 ACGME core competencies
- The clerkship coordinator should help the clerkship director determine which lectures will be taught, how they will be taught, and who will be teaching them
- The clerkship coordinator needs to obtain a list of what will be required for each lecture or lab so that the room and equipment can be made ready prior to the day of lecture
- A year-long lecture calendar should be made prior to the start of the academic year to help avert potential scheduling conflicts
- Lecture rooms and labs should be reserved as far in advance as possible
- The clerkship director needs to outline the rules for student attendance of lectures and what to do for remediation if a lecture is missed

References

1. Chapman DM, Hayden S, Sanders AB, et al. Intergrating the Accreditation Council for Graduate Medical Education core competencies into the model of the clinical practice of emergency medicine. Ann Emerg Med 2004; 43: 756-769.

2. Manthey DE, Ander DS, Gordon DC et al. Emergency Medicine clerkship curriculum: an update and revision. Academic Emergency Medicine 2010; 17: 638-643.

3. Coates WC. An educator's guide to teaching emergency medicine to medical students. Academic Emergency Medicine 2004; 11: 300-306.

4. Wald DA, Manthey DE, Kruus L, et al. The state of the clerkship: a survery of emergency medicine clerkship directors. Academic Emergency Medicine 2007; 14: 629-634.

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Appendix A. Goals and Objectives Based on the ACGME Core Competencies

Overall Educational Goal of Emergency Medicine Rotation
The overall goal of this rotation is for the student to develop diagnostic and therapeutic skills in an emergency department setting.

Objectives
Letters in parenthesis refer to which of the six core competencies this objective addresses: Medical Knowledge (MK), Patient Care (PC), Professionalism (P), Communication and Interpersonal Skills (C), Practice Based Learning and Improvement (PBL), and Systems Based Practice (SBP)

1. Demonstrate skill in completing a history and physical exam in the emergent setting. (MK, PC, P, C)
2. Demonstrate the ability to synthesize a differential diagnosis for some of the most common emergency department complaints (chest pain, shortness of breath, abdominal pain, blunt trauma, laceration repair/wound care, back pain, and altered mental status) and create a workup and treatment plan for these patients. (MK, PC)
3. Demonstrate a basic understanding of the role of ultrasonography in emergent patient care (MK, PC)
4. Demonstrate a basic understanding of prehospital care in trauma and chest pain patients. (SBP, PC)
5. Use ED patient care experiences along with appropriate educational resources to improve their understanding of emergency medicine. (PBL)

Simulation in the Emergency Medicine Clerkship

Student Scenario

A student contacts the clerkship coordinator about the possibility of doing an away elective in the emergency department. He has some questions about the particulars of the clerkship.

Student: "So I was looking into a few programs in the area, trying to decide where I'd like to rotate. This other program seems to have a really strong simulation program that other students tell me is fantastic. Can you tell me what the simulation curriculum is like in your clerkship?"
Coordinator: "Well, we do incorporate some simulation into our clerkship…"

Student: "Do you know what type of equipment you use?"
Coordinator: "Umm…it's a mannequin of some kind…"

Student: "I see…well how many cases do you run? What kind of cases do you run? What kind of procedures are students taught?"
Coordinator (shuffling through papers): "I'm sure I have that information somewhere…."

Student: "Do you have a simulation based curriculum or is it mostly didactics and small groups?"
Coordinator: "I'm going to have to get back to you…"

Introduction

Mock patient encounters using high-fidelity integrated simulation systems are a relatively new, but immensely popular and fast-growing area of medical education. Multiple studies have confirmed its utility for teaching everything from history and physical examination skills to learning complex procedures in a safe environment [1]. The advantages of simulated patient encounters are many. Educators can directly observe students and assess strengths and weaknesses in their history and physical examination skills, their ability to assimilate and act on clinical information, and their ability to work as a team. Mistakes made during a simulated case provide an invaluable opportunity for discussion and feedback without the danger of harming an actual patient.

Students enjoy working with a well-designed simulation curriculum as it provides tangible, "hands-on" experience where they are the ones making decisions without direct intervention and oversight from residents and attending physicians. There is also compelling evidence that this interactive form of education is at least as good as a curriculum based on lectures and small groups in terms of learning information [2,3]. Due to these reasons, many student clerkships in emergency medicine have embraced a simulation curriculum as an integral part of their rotation. The clerkship coordinator should have a basic understanding of how a simulator functions, which facilitators will be running the sessions, the number and types of

cases planned for the students, and how these cases fit into the overall architecture of the clerkship.

The Simulator Platform

There are several competing simulators on the market, with both adult and child models available. All of these simulators perform the same basic functions, permitting a facilitator to design a patient scenario, program in the important variables in terms of vital signs and physical exam findings (such as heart murmurs, abnormal breath sounds, etc.), and then allowing the physiology and status of the patient to change as the students go through the case. The facilitator typically provides the students with a brief introduction, such as "this is Mr. Jones, a 45 year old gentleman who presents with chest pain for 3 hours." The students then interview the patient, with the facilitator providing either pre-recorded responses or answering in place of the patient. After obtaining a history, the students can then examine the simulator as if it were a real person. Depending on the capabilities of the simulator platform, this may involve findings such as abnormal pupil size, swollen tongue, wheezing in the lungs, heart murmurs, etc. The students then formulate a plan to treat the patient, divide responsibilities among themselves in terms of who will lead the team, who will work on intravenous lines, etc. Their interventions in terms of medications or IV fluids given will result in changes (for the better or worse!) in the patient's verbal cues (e.g. "my chest pain is better"), vital signs, and physical exam findings.

Another valuable aspect of simulated patients is their ability to allow students to learn and practice dangerous and/or invasive procedures in a safe environment. Simulators vary in their capabilities in this aspect, and it is important to know which types of procedures are planned so that prospective students have an idea of what they will have the opportunity to practice. Many of these procedures are exciting yet anxiety provoking for students due to their inherent danger and students may be eager to rotate through a program that provides them this experience.

After the students have performed their interventions, the facilitator will generally decide when the simulation has run its course and call for a halt. The team will then have a "debriefing session" where the students are encouraged to first reflect on what went well and what could have gone smoother. They can then receive real-time feedback from the instructor to educate them on aspects of the case they struggled with or with procedures they were unfamiliar with. This usually involves the instructor going through a list of "Critical Actions" that physicians would be expected to complete on an actual patient in a similar scenario. The students can then ask questions, request to go through a procedure again, or ask for additional resources to learn the material at hand. A session will typically conclude with anonymous feedback given by the students about the simulation for the purposes of quality assurance and case development.

Organizing a Simulation Curriculum

Strong organizational skills on the part of the clerkship coordinator are crucial to the success of a simulation curriculum. There are many elements involved in creating a successful simulation program, and pre-planning is absolutely essential to ensure that it all comes together.

First on the list is determining, in conjunction with the clerkship director, how many dedicated sessions there will be per rotation and how these sessions are spread out throughout the

clerkship.   A hospital/medical school's simulation laboratory is often in high demand, and requests for time with the equipment should be made months, if not a year, in advance.   Not only must your requests for time fit with what is available, but ideally each session should be run in careful coordination with the rest of the lectures and small groups involved in your clerkship. For example, it is optimal to plan a simulation session involving chest pain and cardiac arrest after a week of lectures on heart attacks, ECG interpretation, and when/how to use a defibrillator. It is strongly recommended that the coordinator should sit down with the clerkship director ahead of time to see how the scheduled lecture topics fit with the simulation curriculum. Presenting simulation cases that are out of sync with the rest of the rotation may be confusing and frustrating for the students.

After determining the time slot for each session, the clerkship coordinator must schedule both student participants and facilitators. You should make every effort to schedule students so that they can attend these simulation sessions (e.g. ensuring they aren't working the night before). Some programs solve this dilemma by designating a certain day of the week as "Simulation Day" and refrain from scheduling students for a clinical shift in the emergency department during this slot. The number of students per case is also an issue. Running sessions with one or two students may be an inefficient use of the time, whereas having eight students all trying to work on the same simulator will dilute each student's experience as there simply won't be enough for everyone to do. In general, four or so students per case is probably a reasonable balance of time and resources without sacrificing the quality of the experience for each learner. For larger groups, the coordinator could also schedule eight students for two cases and have them operate in alternating teams of four, with one team running the case while the other team observes and even provides feedback. For programs with very large amounts of students rotating at once, you may need multiple facilitators and simulator platforms. Another option is to have one group receive a lecture or skills workshop while the other group operates the simulator and then switch.

Most facilities will have a designated simulation center coordinator who handles all the ordering, maintenance, scheduling, and special needs of each session. The clerkship coordinator should be in close contact with this person and provide them with schedule requests, anticipated number of students, and whatever special equipment is required for planned procedures. This information should be relayed well ahead of time (ideally the whole year in advance) and be emphasized with periodic reminders at the beginning of each rotation.

The Simulation Facilitators

Choice of facilitators for simulation sessions is an important decision. Ideal facilitators are enthusiastic about simulation and education, creative in terms of case development, quick to adapt to unexpected situations that may arise during the simulations, and are well versed in the art of providing effective, real-time constructive feedback. This role will often be filled by faculty members or senior residents from the emergency department. Each new facilitator should be given a thorough overview of the simulation platform they will be working with and develop an in-depth knowledge of its operation and capabilities.   This training session is often handled by the director of simulation or a faculty member with a special interest in simulation.

They also need to know how the case they develop integrates with the rest of the student curriculum and what critical elements they are expected to include. The clerkship director should meet with each facilitator and go through their cases to ensure that the expected educational material is incorporated.

Scheduling facilitators is another crucial element for a successful simulation curriculum. Nothing is more embarrassing than for a group of students to arrive for a session only to discover that no facilitator is there to run their cases. This reflects very poorly on the clerkship and the department.   A good clerkship coordinator will work closely with their simulation facilitators and schedule them well in advance so that they can then coordinate with their work schedule. Again, an ideal approach is to schedule sessions at the beginning of the academic year, and then send reminders to each facilitator on a monthly basis.

Integrating the Simulation Curriculum

After establishing the number and dates of sessions and scheduling students and facilitators, the next task of the clerkship coordinator is to ensure that the simulation curriculum fits well into the rest of the clerkship. As mentioned before, a well-designed simulation curriculum will flow logically with the rest of the educational elements in the clerkship and be well integrated with the lectures, small group sessions, etc.

Practically speaking, this means that each simulation session should deal with a carefully selected topic or patient chief complaint and incorporate elements of the history taking, physical exam skills, differential diagnosis, and treatment modalities that were recently taught to the students. Students find this integrated approach to learning much more satisfying than a helter-skelter approach, with wildly varying, unrelated topics being taught in no particular order. A mock schedule that provides an example of how simulation sessions would be ideally placed in conjunction within the rotation is provided as Appendix A at the end of this chapter.

The Simulation Sessions

After establishing time slots for each session and scheduling students/facilitators accordingly, the next task is to ensure that each case is properly set up to run smoothly. Simulated cases can vary in terms of necessary equipment and the success or failure of a session can hinge on the availability of these tools for the use by the student. In order to ensure each simulation is equipped properly, a good idea is to require each facilitator to prepare a brief summary of each case including all necessary supplies. These simulation summaries should be completed well ahead of time, copies of which should be kept by the clerkship coordinator. These lists of required materials should be given to the sim-lab coordinator as far ahead of time as possible. It is a good idea to email this person on a weekly basis with a summary of cases to be run for the week along with all required equipment. An example of this form is provided in Appendix B.

Debriefing and Feedback

At the conclusion of each simulation, the next order of business is for the facilitator to run an informal debriefing session. The purpose of this discussion is not to point fingers or to place blame for failure, but rather to allow the students to reflect on the case and uncover areas they felt they could have improved upon. A popular method of encouraging self-evaluation is to distribute a list of case specific "Critical Actions," including several specific actions that should have been taken in the course of the case. The students are then encouraged to discuss how they met those actions and if they did not, why they did not and how they would improve the next time.

For the purposes of the clerkship coordinator, this provides a valuable opportunity to gather information that can be used for the purposes of providing feedback to the students during their meetings with the clerkship director. One suggestion is to have the students each fill out a self-assessment after each simulation session. These forms can be collected and filed along with the rest of the student's performance evaluations. This self-reflection will often provide valuable and sometimes surprising information that the clerkship director can use when providing mid-clerkship feedback or include in a formal written evaluation.

The final element to a successful simulation curriculum is an effective feedback loop from the students back to the facilitators. Simulated cases are challenging to create and can often be too difficult or too simple for the students. There may also be parts of the case the students felt were rushed, glossed over, or not explained sufficiently. All of this feedback is crucial for the facilitators and the clerkship director. Every case should end with the students filling out a brief evaluation which should be collected and filed by the clerkship coordinator. The simulation facilitators should then review this feedback on a periodic basis and make corresponding adjustments to their cases in order to improve the experience for the students. A sample of this feedback form is provided below:

Case: Trauma Victim

Critical Actions:	Success	Failure
1. Rapid sequence intubation		
2. IV access and fluid resuscitation		
3. Performing and correctly interpreting a FAST exam		
4. Ordering uncrossed blood for transfusion		
5. Alerting the trauma surgeon		

What aspects of this case do you feel went well?

What aspects of your performance in this case do you feel could have been improved upon, and how?

On a scale of 1-5, 1 being too easy, 3 being just right, and 5 being too difficult, how would you rate this case?

What elements of the case did you learn the most from?

What one or two things would you change in this case to improve it?

Please make any additional comments below:

Conclusion

Simulated patient encounters are a popular and valuable teaching method for the emergency medicine clerkship. The logistical aspects involved with creating, maintaining, and improving on a simulation curriculum are complex and challenging, requiring the clerkship coordinator to work closely with the clerkship director and simulation facilitators. Organization, communication, and dedication are crucial for the success of the curriculum. What follows is a list of Key Points for the clerkship coordinator's role in the development of a successful simulation curriculum.

Key Points

- Become knowledgeable about the capabilities of your particular simulation system
- Know which procedures the students have the opportunity to learn and practice
- Organize the simulation schedule well ahead of time and send constant reminder emails to students, facilitators, and the sim-lab director about upcoming sessions
- Provide the simulation lab director with case summaries and required material for each case
- Integrate each simulation session with the rest of the curriculum to ensure that topics covered in lectures/small groups fit with the chief complaint of each case
- Arrange to have all new facilitators trained on all equipment ahead of time
- File all self-evaluation and feedback from each student for use in student evaluations and to use as tools for improving each case

References

1. Weller, Jennifer. Simulation in undergraduate medical education: bridging the gap between theory and practice. Medical Education 2004; 38: 32-38.

2. Steadman, Randolph et al. Simulation-based training is superior to problem-based learning for the acquisition of critical assessment and management skills. Critical Care Medicine 2006; 34: 151-57.

3. Eyck, Raymond. Improved medical student satisfaction and test performance with a simulation-based emergency medicine curriculum: a randomized controlled trial. Annals of Emergency Medicine 2009; 54(5): 684-691.

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Appendix A. Mock Schedule of Simulation Sessions in Conjunction With Lectures in the Clerkship

	2 Tue	3 Wed	4 Thur	5 Fri	6 Sat	7 Sun
1 Mon 9 AM Lecture: Chest Pain 10 AM: Small Groups: ECG interpretation			9 AM: Sim Lab Case: Acute MI			
8 Mon	9 Tue 9 AM Lecture: Acute Respiratory Distress 10 AM: Chest xray interpretation 11 AM: Intubation/ Ventilator workshop	10 Wed	11 Thur	12 Fri 9 AM: Sim Lab Case: Pneumonia/ respiratory failure	13 Sat	14 Sun
15 Mon	16 Tue 9 AM Lecture: Change in Mental Status	17 Wed	18 Thur 11 AM: Sim Lab Case: Poly-drug overdose	19 Fri	20 Sat	21 Sun
22 Mon	23 Tue	24 Wed 10 AM Lecture: Approach to Trauma 11 AM: Workshop: Splinting	25 Thur	26 Fri 10 AM: Sim Lab Case: Polytrauma 12 PM: Final Exam	27 Sat	28 Sun

Appendix B. Simulation Summary Form

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Simulation Summary

Facilitator: Dr. Joe Doctor

Case: Pulmonary Edema

Brief Summary: A 73 year old female presents with severe shortness of breath. She is unstable and requires rapid intubation and mechanical ventilation. Peripheral IV access is unsuccessful requiring the placement of a central line. After intubation, the patient goes into ventricular fibrillation requiring defibrillation. The students are then presented with an ECG showing an acute MI, requiring them to contact the cardiac catheterization lab and to give a concise summary of the patient to the cardiologist on call. The case ends as the patient is transferred to the cath lab for further care.

Participants: 3-4 students

Anticipated length of case: About 20 minutes, followed by 30 minute debriefing session

Topics reviewed: Pulmonary edema, intubation and ventilation, acute myocardial infarction

Procedures reviewed: Central line placement, use of defibrillator

Required materials: IV equipment (catheters, tape, IV tubing), central line kit, central line practice mannequin, laryngoscope, endotracheal tubes of various sizes, suction equipment, bag-valve mask, defibrillator with attached leads

</div>

Medical Student Documentation:
Paper Charts and Electronic Medical Records (EMRs)

Student Scenario

The clerkship coordinator is working at their desk when the phone rings. At the other end of the line is a frantic visiting medical student who is in the emergency department right now.

Frantic Student: "You have to help me!"
Coordinator: "Take a deep breath and then tell me what the problem is."

Frantic Student: "I can't log onto the computer to access the patient's chart!"
Coordinator: "What happens when you log on?"

Frantic Student: "It says incorrect username or password. I have to log on! All the other students can access patient charts and they're seeing patients and writing notes. I'm getting so behind!! I'm going to get a bad grade, I won't get a good letter of recommendation, I won't be able to match into emergency medicine……."
Coordinator: "All right, calm down. Did you contact the Help Desk?"

Frantic Student: "I called them. They said they can't even find my name in the system."
Coordinator: "You completed the online training course for the computer system, right? I did send you 3 emails to remind you to make sure you had that done so that you would get access to the system."

Frantic Student: "I thought that was optional……"
Coordinator (gritting your teeth): "I'll see what I can do."

The clerkship coordinator calls the information technology (IT) department.

Coordinator: "Hi, I'm calling about getting computer access for a student."
IT person: "We just talked with that student. They need to do the online training and then sit through the 4 hour training class that shows them how to access and write on the patient's chart."

Coordinator: "Well the student can do the online training at any time. When's the next class?"
IT person: "3 weeks from now."

Coordinator: "That's too late! The clerkship will be almost over by then. What can I do for this student now?"
IT: "Maybe the student can sit in on the attending training class one week from now. I'll see if that will be a problem."

The coordinator hangs up the phone and bangs their head on the desk.

Introduction

An important part of medical student education is learning how to write an organized and succinct history and physical examination note. This patient note can demonstrate the thinking process of the student and reveal any gaps in their knowledge base. The note can also be used as a teaching aid for the clerkship director or a student mentor to review with the student. It is important for the clerkship coordinator to know what the patient note looks like and what information the students should be recording. If all charting is done on the computer, training and access to the computer system will need to be obtained for the student. If a paper chart is utilized, it should be determined, in conjunction with the clerkship director, what sections of the chart the student should complete or if the student note will even make it into the patient's chart.

Teaching Documentation

Preferably, a physician should teach the students how to document on the chart. A physician can demonstrate which parts of the chart to complete and what keywords to avoid. Certain keywords such as "worst headache of my life", "lethargic" in a pediatric patient, and "tearing chest pain" have specific implications that require immediate medical management. The clerkship coordinator should make certain that someone is educating the medical students with regards to this issue.

A physician can also stress the billing aspect of the chart in terms of what Medicare / Medicaid will count in the medial student's note for billing purposes. The Centers for Medicare and Medicaid Services state that the only part of the student's chart that contributes towards billing are the Past Medical History, Family History, Social History, and Review of Systems [1]. The history and physical examination parts of the student's note cannot be billed unless the student is directly supervised while doing the entire history and physical exam by an attending or resident. This is important to know as it may determine where the students write on the chart and if their note will be included in the patient's chart.

The decision regarding student documentation should be made at the start of the academic year between the clerkship coordinator and the clerkship director. The director of the emergency department as well as the chairman may also need to be involved in this decision as it may affect billing. It is also important to ensure that any changes in this process are communicated to the clerkship coordinator, the clerkship director, and whoever will be instructing the students on how to write the patient note.

Documentation Basics

The Chart As Medical-Legal Documentation

A patient's chart is often referred to as a medico-legal document. Essentially, the chart serves as medical record for what care was provided, as well as a legal record of what occurred and what was said to the patient in case a lawsuit ever arises. Medical students must realize that

other physicians may read their notes to get an understanding of what is occurring with the patient. When the patient returns for a repeat visit, the old chart will be referenced.

Regarding the legal ramifications of charting, everything the student records can be used by a plaintiff's attorney to prove wrong-doing on the part of the physician. This is important if the student's notes will be included in the patient's chart as it has been shown that students do not accurately document in the note everything that occurred in their patient interaction [2]. Essentially, if it is not documented, then it did not happen in the eyes of the legal system. Due to these reasons, it must be stressed to the student that they have clear, legible documentation which is complete and not missing pertinent information. The clerkship coordinator should ensure that students are aware of this during orientation. Students may need to be reminded of this periodically throughout the rotation.

Paper Chart

If a paper chart is being utilized in the emergency department, the first task will be to sit down with the clerkship director and determine if the student will be permitted to document on the patient's chart and what sections of the chart they are responsible for. If the students will be writing their note on a separate sheet, it needs to be determined if this sheet will be included in the actual chart, handed in to the clerkship coordinator / clerkship director, or discarded. As was mentioned before, only the student documentation of the Past Medical History, Family History, Social History, and Review of Systems counts for billing purposes and so these may be the only sections the student may be asked to write in. The following are three potential ways students can document on a paper chart, along with the pros and cons of each method.

Student Documents on Actual Chart
Pros
* Students learn how to write notes which is a valuable skill
* Students feel that their contribution is valued and take greater ownership of the patient
* Emergency Medicine faculty can easily look at the student note as they write their own note and give real time feedback

Cons
* The student documentation in the history and physical sections do not count for billing
* Attendings will need to find a space elsewhere on the chart to write those sections.
* Attendings may document the chart as if a resident wrote on it and so billing on student charts can be low
* Some charts may have the physical exam section set up for quick documentation by circling or crossing out items and if the student utilizes this section then it will take longer for the attendings to document
* If the student documents poorly, it can put the attending at risk in case of lawsuit

Student Only Fills Out Billable Portions of Actual Chart
Pros

- Students still fill out a portion of the actual chart and their contribution is valued
- Students document sections of the chart that can be billed, leaving the rest of the chart open for attendings to document
- Students can keep a separate sheet with the rest of the patient documentation that can be used as a teaching aid by the clerkship director or mentor for the student
- Liability for the attending is decreased (but not removed) compared to full student documentation

Cons
- This separate sheet has confidential medical information about a patient and if the sheet is left lying around or thrown in the trash then this private information could be retrieved by someone who should not have access to it
- Collecting each student's separate sheets can be logistically difficult
- Attendings during a shift may not have ready access to the student note so real-time teaching about documentation may not take place

Student Documents on Separate Sheet ("Student Chart")
Pros
- Separate sheet can be used as a teaching aid by the clerkship director
- Can be collected for review to make sure the student understands the necessary components of documentation
- No potential liability for the attending as all patient information recorded on a separate sheet and not in the actual chart

Cons
- Same Cons as from the "Student Only Fills Out Billable Portions of Actual Chart"
- The student may feel they are not important as they don't write on the actual chart

Clerkship Coordinator's Responsibility with Paper Chart

If the students will be documenting on a separate chart, a process should be developed for how the charts will be collected and when the clerkship director or mentor will review the notes with the students. The clerkship coordinator should stress the importance of not throwing these separate charts away or leaving them around the emergency department due to the sensitive personal information the sheets contain. Once the student charts have been evaluated, they should be discarded with documents that are burned or shredded and not thrown out in the regular trash. The clerkship director will need to generate blank medical student charts and store them in the emergency department for student use. If the students will be writing on the actual chart, the clerkship coordinator should ensure that someone shows the students the chart and the sections that they need to write in.

Electronic Medical Record (EMR)

An electronic medical record (EMR) is a computer-based patient chart. Physicians use an EMR to view the medical history of the patient, review laboratory and x-ray results, place orders for the patient, and write a note about the patient visit. Emergency departments and hospitals have been steadily replacing paper charts with an EMR. EMRs have been shown to increase adherence to giving care based on guidelines, decreasing medication errors, and increasing disease surveillance [3]. Other benefits of an electronic chart include the ability for multiple people to view the chart at the same time, the ability to access past visits and other physicians' notes, and the ability to access labs and x-rays via one program. As a result, more and more hospital systems are moving to an electronic medical record, which means that medical students will need to be trained on how to use it.

Medical Student EMR Training

The first step for the coordinator is to ascertain with the clerkship director what a medical student will be expected to do in an EMR. Their training should focus only on those aspects of the EMR they are expected to be accountable for. Once that has been determined, there are multiple ways a medical student may be trained to use an EMR. There may be an online course where the student can complete self-directed learning, a training class where they are taught by an instructor, or a blended approach that mixes classroom learning with online computer based training [4]. Most of the time, the student will not receive their username and password to access the EMR until they have finished some sort of training.

The clerkship coordinator will need to find out how the hospital is training medical students to use the EMR. A representative from the information technology (IT) department will be the best person to ask as they are usually in charge of the training. It is important to know who is in charge of the EMR training as the clerkship coordinator will need to contact them periodically as each new batch of students arrives. The coordinator should have the following student information for the IT department to help get an ID created for the medical student in the EMR; full student name, date of birth, social security number, email address, and phone number. This information will need to be obtained and given to the IT department as soon as possible as it may take several days for the student ID to be created and added to the EMR.

If the hospital will train the medical students via an online module, then the students will need to know the website of the training program, how to access it, and if there is a test which they must complete. If the students need to attend a class, then the students will need to know the location of the class, the date and time it is offered, and what other class they can attend if they miss the original class. Sometimes the training involves a combination of an online module and a class. It is important to know which portion needs to be done first and how much in advance of the other portion. For example, the online module may need to be done 48 hours before the training class. If this is the case, the clerkship coordinator must make the medical students aware of this.

A meeting should be arranged with the person in charge of training before the start of the academic year and it should be explained to them that a new group of students will require training every four weeks, at either the beginning or prior to the start of the clerkship. It should also be discussed what other classes a student may attend if they miss the medical student

training session. The EMR trainer may decide that the medical students can go to an attending or nursing training session if they miss the medical student training session.

Visiting Students

Optimally, the visiting students should be trained on the EMR prior to the start of the rotation. This would enable them to access the EMR on day 1 of their rotation. However, it may not be possible for the visiting students to complete the EMR training prior to the start of the rotation. If this is the case, visiting students should be scheduled for training as soon as the clerkship begins. The clerkship coordinator should make sure that visiting students can communicate with them via phone or email a few weeks before the start of the clerkship in order to get information that the IT department will need to setup their account in the EMR.

EMR Etiquette in the Patient's Room

There may be computers in a patient's room that the students can use to document on the chart. Students may be tempted to focus on the computer screen while taking their history instead of looking at the patient and thus miss non-verbal cues such as the patient clutching their chest as they are having chest pain. Studies have demonstrated this decreased eye contact with patients due to the EMR usage in a patient's room [4]. The clerkship coordinator should make sure that the students are taught to focus on the patient while they are getting their history. One solution may be to have students document on computers outside of the patient's room.

Key Points

- If possible, a physician should teach the students how to document on the chart, concentrating on which key phrases they should avoid unless absolutely certain those phrases are appropriate
- It should be determined at the start of the academic year what portions of the chart the students are responsible for with any changes being relayed to the clerkship coordinator, clerkship director, and the person instructing the students how to document
- The medical student should realize that the patient chart is a medico-legal document and ensure that their writing is complete and accurate
- If the students are to document on a separate chart, it should be determined if this separate chart will be added to the actual chart, if the chart will be collected for teaching purposes, and how the chart will be ultimately discarded
- Training for the EMR may involve an online module, class, or combination of both.
- It is important to know how the students will be trained to use an EMR, who will be training them, and when they will be trained
- The clerkship coordinator should communicate with visiting students a few weeks prior to the start of the clerkship to gain information to help setup their EMR access and training

References

1. Guidelines for Teaching Physicians, Interns, and Residents. ICN # 006347. July 2008. http://www.cms.hhs.gov/MLNProducts/downloads/gdelinesteachgresfctsht.pdf.

2. Szauter KM, Ainsworth MA, Holden MD, et al. Do students do what they write and write what they do? The match between the patient encounter and patient note. Academic Medicine 2006; 81(10): S544-547

3. Chaudhry B, Wang J, Wu S, et al. Systematic review: impact of health information technology on quality, efficiency, and costs of medical care. Annals of Internal Medicine 2006; 144(10): E12-E22.

4. Tracy E. Confessions of an electronic medical record user. Obstetrics & Gynecology 2008; 111(6): 1435-1438.

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Electronic Learning:
The Use of Course Management Software

Student Scenario

Student A: "Can I have a copy of the lecture that Dr. Brown gave us today? It will help me study for the test."
Coordinator: "I'll email Dr. Brown and see if I can get his lecture to you. Um.....his Powerpoint® file will probably be big so I'm not sure how I'll be able to email it to you........ "

Student A: "And Dr. Walsh had told us that she had given you a cool article on the treatment options for strokes. Is there any way I can get it?"
Coordinator: "I think Dr. Walsh left me a copy of that article a few months ago. I'll have to look through my files and folders. If I don't have it, I'll get if from Dr. Walsh and then the next time you come in I'll give you a copy."

Student A: "I won't be here for the next few days and I was hoping I could review the lecture and article during that time."
Coordinator: "I'm sorry, but there's not much I can do about that right now."

Student A walks away grumbling about how this clerkship is unorganized as Student B comes up to you.

Student B: "I can't remember what were the required patient encounters that we need to see. I know the clerkship director gave us an updated list, but I lost it. Can you give me the new list?"
Coordinator: "Here's the list. Oh wait, I think this is the old one. I don't think I was given the new list yet."

Student B: "I'm going to fail this clerkship because I don't even know what patients I'm supposed to be seeing. Thanks a lot!"

Student B stomps away from you.

There must be a better way that all the documents and lectures for the clerkship can be stored in one central location. It would be great if the students could easily access this information at any time and from any place including their home. Maybe a course management software system could be a solution to these problems because the current way things are done is not working.

Introduction

The way that clerkships are being run is rapidly changing. Gone are the days when all a student needed to complete a clerkship were a stethoscope and thirty minutes of orientation to the emergency department. In this day and age, detailed instruction and guidance must be given

to each student throughout their time on the clerkship.   A clerkship coordinator must help make sure that students are having an optimal education experience while fulfilling the Liaison Committee on Medical Education (LCME) requirements.   Lectures, journal articles, educational videos, quizzes, and a syllabus for the clerkship are simply a few of the things that students will need to have ready access to. Medical students will also need a forum where they can be instantly alerted to the rescheduling of lectures or tests. They will need a place where they can join a threaded discussion or chat room discussing an interesting case seen in the emergency department or getting ideas for an oral presentation. Course management software can help you accomplish all of these things.

There are many terms for these electronic learning programs. Virtual learning environment, learning management system, and learning support system are a few examples. In this chapter, we will be primarily using the term course management software (CMS). CMS can help a coordinator create a library for all the paperwork and documents that are essential for any emergency medicine clerkship. CMS also provides an environment that supplements any education given in the clerkship. Web-based interactive programs have been created and placed on CMS systems to help students learn about such things as seizure disorders [1], how to use a personal digital assistant (PDA) in clinical decision making [2], and how to write a research paper [3]. These are only a few possibilities of the many things students can be taught using CMS.

What Can Be Displayed on CMS?

The possibilities are endless on what a coordinator can help put on CMS systems. The only limitations will be memory space and the capabilities of the CMS system that is being used. Most CMS systems will allow the coordinator to put Microsoft® Office documents such as Word® and Powerpoint® as well as Adobe Acrobat® pdf files. If your files are too big memory wise, you may need a program that will reduce their memory size. For example, Powerpoint® presentations can get very large if they contain photos or video. A program such as Impatica for Powerpoint™ can help you reduce the size of the Powerpoint® file so that you can place it on the CMS system.

Some CMS systems will also allow you to make blogs, quizzes, or calendars. You will need to find out what the CMS system you will be using can do so that you do not waste time and effort making content that you cannot post. Listed below are some examples of what can be posted on a CMS system.

- Clerkship manual / syllabus
- Clerkship information
    - Required patient encounters
    - Remediation process for required patient encounter if not seen
    - Shift scheduling rules
    - Location of lectures / test
    - Contact information for clerkship director, clerkship coordinator, advisors
    - Grading policy

- Schedules
    - Lecture schedule
    - Clinical shift schedule
- Lectures
    - Powerpoint® presentations
    - Articles
    - Handouts
- Links to educational websites
- Self-assessment quizzes
- Communication forums
    - Chat room
    - Blogs
    - Threaded discussion
- Instant messaging of any changes to the clerkship
- Videos of procedures

Types of CMS Systems

There are many different types of commercial CMS systems. Blackboard™, Desire2Learn®, and Angel® are just a few examples. These systems have been developed over time by companies to serve as ready made, easy-to-use templates for clerkship organization that students can access from any place and any time. These commercial CMS systems are similar to programs such as Microsoft Office® in that once a software version has been created and distributed, there is not much flexibility by the users to make major changes or customizations. One must wait for a software update to see if any major changes have been made. Commercial CMS systems can also be expensive as the annual cost includes the licensing fee, technology support, and maintenance to the system. The cost to acquire these systems is such that medical schools or universities usually purchase the system and provide it to all clerkships as it is cost prohibitive for individual clerkships to buy them.

Alternatives to purchasing a commercial CMS system is for your school to develop its own in-house CMS system or to use a system such as Moodle™ which is an open-source software system that can be customized by its users. The advantages of these systems are that they can be readily modified and customized for your clerkship, and there is no annual licensing fee. The disadvantages are that there may be costs associated with providing your own technical support for the students, having and maintaining your own server for the CMS system, and needing programmers who can update and modify the CMS.

The key for any clerkship coordinator is to determine whether their medical school already has a CMS system in place and to get familiar with it. If the medical school has already paid for the cost of the CMS system, then the only thing that is required on the coordinator's part will be the time and effort to be trained on how to use it. If the medical school does not have a CMS, then the coordinator may want to help petition the medical school to buy one or organize a group that will either develop an in-house CMS or utilize an open-source system.

How Does a CMS System Help the Clerkship Coordinator?

While a CMS system's main goal is to provide students ready access to important clerkship information and educational tools, there are many benefits that a clerkship coordinator can get from this system. The coordinator can decide which students are given access to the course content on the CMS and when this access starts and ends. A clerkship coordinator can also decide what content a student can have access to on the CMS. One can track what material students are accessing on the CMS and how frequently they access it by generating a report that the CMS can create. Other benefits a CMS system provides a clerkship coordinator are listed below:

- *Easy Organization of the Clerkship*
  All the paperwork for the emergency medicine clerkship can be put in one place. Students can access the information at their time and leisure. The clerkship coordinator does not have to worry that a student who was sick or away for an interview did not get the required information.
- *Saves Paper and Time Spent Searching for Particular Paperwork*
  The clerkship coordinator will not have to waste time and resources printing articles, lectures, or other paperwork nor need to maintain an organized cabinet full of handouts that were given over the past few years. The coordinator will not need to go into work to give the students the article the clerkship director just emailed as the file can be uploaded from their computer at home.
- *Can update information instantaneously*
  Any changes to the schedule or lectures can be updated on the CMS instantaneously. This prevents the problem of five to six different schedules floating around causing confusion.
- *Can send messages*
  Students can be given real-time messages on changes to lecture times or rooms via a CMS system (if it has that capability).
- *Overcome limitations of lack of lecture rooms / lecturers*
  A CMS system can cut down on the time a clerkship coordinator will need for student education in lecture rooms. A self-study module on a topic can also eliminate the need for a lecturer on that topic. Lecture rooms and lecturers are difficulty commodities to come by and a CMS system can decrease the necessity for both.
- *Don't have to organize having students at different sites come to one central location for lectures*
  The CMS can save time and travel for the students as they do not have to come from their sites to one location to get their lecture if a self-study module on the topic can be placed on the CMS.

Pitfalls of a CMS System

One of the biggest hurdles for a CMS system is that a coordinator will need to be trained on how to use it. This training requires a good amount of time and effort at the beginning as the clerkship coordinator becomes acquainted to the CMS format and learns how to add content. Continued training will also be required as new software updates and features are added. If a coordinator wants to create web-based content or module to put on a CMS system, the coordinator may need additional training on how to create that web-based content as the CMS system will let the coordinator add that content, not create it. For something as specialized as an interactive web-based module, the coordinator may need to organize a team of specialized individuals such as a graphic artist, systems tech, and content master [4].

The medical students will also need training on how to use the CMS system. However, if the medical school has used the CMS system throughout the 4-year medical school curriculum, then the students will arrive at the emergency medicine clerkship knowing how to use the system, saving the coordinator from training them. Visiting students, on the other hand, will not only need training but will need a username and password. A handout or online tutorial may need to be made to help show the visiting student how to use the system.

The coordinator will need to know who the point person is in charge of the CMS system at their medical school. This person will help the coordinator create usernames and passwords for visiting students. They will also help the coordinator with any problems that may be occurring with uploading content onto the CMS system.

Conclusion

A CMS system can help a coordinator organize clerkship documents and lectures while allowing students to access them at any time and from any place. Once a coordinator's learned how to navigate the system, it is easy to add documents or make updates. The downsides are that a commercial system can be very expensive and home-grown systems will require an abundance of time, resources, and individuals with technical expertise.

Key Points
- CMS systems will allow a coordinator to post Microsoft Office® files, Adobe Acrobat® pdf files, and web based applications
- The coordinator should check to see what CMS system is being used at their medical school and become familiar with the system via training
- If the medical school does not have a CMS system, the coordinator may want to consider an open source system
- The coordinator should make sure to find out who is the point person for the CMS system as they will help the coordinator with problems updating or adding content for the clerkship
- Visiting students will require a username, password, and instructions on how to navigate the CMS system

References

1. Ochoa JG, Wludyka P. Randomized comparison between traditional and traditional plus interactive web-based methods for teaching seizure disorders. Teaching and Learning in Medicine 2008; 20(2): 114-117.

2. Freeman J, Dobbie A. Learning PDA skills online is feasible and acceptable to clerkship students. Family Medicine 2008; 40(10): 696-699.

3. Stone VL, Bongiorno R, Hinegardner PG, et al. Delivery of web-based instruction using Blackboard: a collaborative project. J Med Libr Assoc 2004; 92(3): 375-377.

4. Servonsky EJ, Daniels WL, Davis BL. Evaluation of Blackboard™ as a platform for distance education delivery. ABNF Journal 2005; 16(6): 132-135.

Helpful Websites

http://www.blackboard.com/
http://www.angellearning.com/community/higher_ed.html
http://www.desire2learn.com/
http://moodle.com/

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The Role of the Resident in the Medical Student Curriculum

Student Scenario

Resident: "Hey this medical student showed up during my shift yesterday and asked me what she should be doing."
Coordinator: "Oh yes, the new group of students is starting their rotation this week. How did it go?"

Resident: "Well, it was really busy and I didn't really know what to do with her, so I told her to go to the library and look a bunch of stuff up."
Coordinator: "Oh I see. Did she see any patients after that?"

Resident: "Yeah she asked if she could go see a patient, so I had her see an ankle sprain. She kept trying to present the patient to me and was asking all sorts of questions, so I just took the chart and told her to watch me do it."
Coordinator: "Well how did she do? Did you fill out one of our evaluation cards or give her any feedback?"

Resident: "Huh? Evaluation cards? I didn't know we had those. And I thought the faculty was supposed to give them feedback…."

Introduction

Residents play an important role in the education of medical students in the emergency department. Some survey studies of medical students show that they attribute as much as one-third of all their learning in medical school directly to residents [1]. Residents serve not only as teachers, but also as role models and mentors. Medical students will often mimic the style of practice, attitude, and approach to patient care of the residents they work with. Residents are often asked by faculty to evaluate medical student performance as they will often spend more time with the students than faculty and have a better feel for their knowledge and abilities. For these reasons, it is imperative that a medical student clerkship in the emergency department carefully plan and integrate the role of emergency medicine residents into the curriculum.

The Resident as Teacher

The clerkship director and clinical faculty should develop a clear role for the resident with regards to medical student education. The senior residents will typically work one-on-one with medical students in the emergency department, hearing case presentations, providing bedside teaching, and offering immediate feedback. This role may also include giving lectures, leading small group discussions, and running simulation lab sessions. Before the beginning of each new academic year, it is important to define these roles for the residents so that they have a

clear understanding of what is expected of them. The clerkship director should meet at least once with the senior residents to describe their role in the curriculum. The coordinator should distribute copies of teaching objectives that define the residents' responsibilities concerning medical students as "contracts" for them to sign. The coordinator should keep these "contracts for education" to serve as a reminder for the residents of their importance in the education process. A grading policy along with instructions on how to use evaluating tools such as a shift evaluation card should also be given to residents at the start of the academic year.

Some residents will be unaccustomed or uncomfortable with their new roles as teachers. Little or no formal training is provided to residents on the art of teaching, rather they tend to model their behavior on their past experiences as medical students [2]. For this reason, clerkships should provide a mandatory training session for their senior residents on the subjects of teaching and giving feedback. This training is not voluntary. The Liaison Committee on Medical Education (LCME) mandates that residents be provided with instructions on how to teach. Ideas to satisfy this mandate include having lectures, small group discussions, and role-playing sessions dealing with teaching medical students. The ultimate goal is to provide residents with the basic skills necessary to provide effective medical student education. This training should be scheduled early in the academic year and the date provided to the residents well in advance to ensure participation.

There are many excellent resources that the clerkship coordinator can reference when helping residents learn the art of teaching. As an example, one method of teaching widely applicable to the busy emergency department is the "One Minute Preceptor" model [3]. This technique is easy to learn and provides a framework for the residents to educate medical students. Coordinators should provide this and any other resources that the clerkship director feels are worthwhile to the residents at the beginning of the academic year in the form of an "educational handbook." This will be a valuable resource that the residents can reference throughout the year, especially for those residents that struggle with teaching.

Finally, some residents will provide lectures, coordinate skills workshops, or run simulation sessions throughout the course of the year. These residents will juggle this responsibility on top of an extremely busy schedule. The clerkship coordinator needs to keep careful track of the schedule for each month to ensure that the residents meet these obligations. Provide a calendar of medical student lectures at the beginning of the year and encourage the residents to integrate these sessions into their own schedule requests. Send email reminders at the beginning of each block outlining the times and locations of these events. Repeat these email reminders a few days before each medical student session. A resident's schedule will often be in a state of flux, changing in response to the needs of the emergency department and other obligations, and for this reason it is absolutely vital to update the schedule and to keep in contact with every resident that is expected to lead medical student conferences.

The Resident as Evaluator

Given the amount of time residents spend working with medical students during their rotation, it is only natural that they contribute to the students' evaluations. It will be the responsibility of the clerkship director in conjunction with the coordinator to establish a system enabling the residents to provide fair evaluations of students as well as feedback on their performance in the emergency department. Although practices vary, it is commonplace to have residents fill out evaluation forms that "grade" the student on a variety of criteria (clinical knowledge, inter-personal skill, etc). The clerkship coordinator should be sure to periodically remind residents via emails to complete these forms. The coordinator should also develop a system to collect and keep these forms for periodic review by the clerkship director. Track which residents are working with particular students and send these specific residents reminder emails if their evaluations are not being completed in a timely fashion. These actions will help to ensure a more accurate and complete evaluation process.

The Resident as Feedback Provider

One of the most crucial roles for residents in the emergency medicine clerkship is the role of providing feedback to medical students. A common complaint among medical students is their lack of knowledge concerning their perceived deficiencies until the very end of their clinical experience (if ever).   They are often left unaware of the opinions of their evaluators until they receive their grade and/or have a formal meeting with the clerkship director. This feedback will be nearly useless as the students have already finished their time in the emergency department at that point and have no time to work on improving their performance.

The resident can serve as an invaluable resource to prevent this frustrating situation. They gain a valuable perspective on the strengths and weaknesses of each student as they work with them and are ideally suited to provide instant feedback. Despite this potential reservoir of information, many residents are reluctant to provide constructive criticism. They often fear damaging their relationship with the students, provoking uncomfortable confrontations, or receiving unfavorable evaluations from the students. There are many methods of giving constructive criticism to help prevent these situations that the clerkship coordinator should make available at the beginning of the year [4]. The residents need to understand that giving feedback to medical students is part of their responsibilities, just like taking care of patients.

After providing this information, encourage mandatory feedback by including a space on the evaluation cards/forms that *requires* the resident to explain one or two points of constructive criticism that were provided during the course of their experience with each student. Keep this information organized in each student's file so that the clerkship director has the opportunity to reference it during meetings. Try to identify residents that seem to be struggling with this

responsibility and either offer to provide resources or direct them to the clerkship director for further help.

Conclusion

Residents are an essential component for any successful EM clerkship. To be effective, they require education and preparation for their roles as educators, evaluators, and feedback providers. The clerkship coordinator serves as a vital component in this process in terms of providing residents with resources on teaching, organizing and maintaining a schedule of resident-led conferences, and ensuring the timely completion of resident evaluations and feedback provision for the students. When the emergency medicine residents are well directed and managed, their positive impact on the medical students' education can mean the difference between a mediocre clerkship and a spectacular one.

Key Points

- Make sure to hand out the clerkship objectives and grading policies to residents prior to the start of the new academic year

- Residents need to be given training on how to teach medical students

- Provide schedules well in advance to residents who will be lecturing or helping in a lab and send email reminders as their lecture or lab date approaches

- Ensure that residents are taught how to give feedback to students and that it is being done on a routine basis

References

1. Bing-You RG, Sproul WB. Medical students' perceptions of themselves and residents as teachers. Med Teach. 1992; 14:133–138.

2. Post RE et al. Residents-as-Teachers Curricula: A Critical Review. Academic Medicine 2009; 84(3): 374-380

3. Neher JO, Stevens NG. The One-minute Preceptor: Shaping the Teaching Conversation. Family Medicine 2003; 35(6):391-3.

4. Hewson MG, Little ML. Giving Feedback in Medical Education. Journal of General Internal Medicine 1998. 13:111-116.

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Evaluation and Grading:
Methods for Fair Assessment of Students

Student Scenario

Irate Student: "There must be some mistake with my grade. I know I did really well on this clerkship because all the doctors I worked with said I did a good job. I should have a higher grade than this!"
Coordinator: "The clerkship director gathered all your shift evaluation cards and calculated your clinical score and when adding in your test grade ......"

Irate Student (cutting you off): "And the test I got was so much harder than the test the other students got at the other site!"
Coordinator: "I think the test questions were similar between both sites....."

Irate Student: "And on the day of the test, I wasn't feeling well and that's why I didn't do so well. Can I retake the test?"
Coordinator: "I don't think we have a procedure for that....."

Irate Student: "Also I handed out many shift evaluation cards. The people who I did a great job with haven't handed in their cards. My grade would be much higher if those were factored in."
Coordinator: "I'm pretty sure all the shift evaluation cards for you have been handed in......"

Irate Student: "How do I appeal this horrible grade?"
Coordinator (Sighing): "Let me get back to you."

Introduction

The clerkship coordinator is generally responsible for the organization of the assessment and grading process for each student in the emergency medicine clerkship.   Duties include the collection of all evaluation forms, reminders to preceptors, faculty, and residents for timely evaluation of students, and the scheduling and administration of the test. It is extremely important that the coordinator is aware of the grading policies and procedures of the clerkship in case a student wants to contest their grade.   The coordinator also needs to stay in close communication with the clerkship director to make sure that the evaluation and grading for each student is complete and fair.   In addition, the students should be given an overview of the assessment and grading during orientation with all grading policies being readily accessible by the student via a clerkship syllabus, website, or course management software (such as Blackboard™).

Methods of Evaluation

There are many different methods to evaluate a student. No single one should be used as the sole method to evaluate a student as it will not capture every detail that is needed to assess the student. Generally, a combination of evaluation tools will be used for a complete and fair assessment of the student. The clerkship director and coordinator must determine which evaluation tools they can use based on the resources available to them. Examples of assessment tools are listed below.

Direct Observation

Directly observing a student taking a history, completing a physical examination, or performing a procedure is an excellent way to evaluate the student. The evaluator must know beforehand what they are evaluating in the student. For example, are they concentrating on how well the student is communicating with the patient or are they focusing on if the student can listen to the heart properly. This method allows for immediate feedback and teaching which students appreciate. Downsides to this method are that two patients with the same complaint can present differently making it difficult to evaluate each student and not all patients can be interviewed [1] (for example a stroke patient who cannot speak). Another problem is that it can be extremely difficult for an attending or resident to be present for the entirety of every student-patient interaction in a busy emergency department. A solution to this is having a "teaching" resident or faculty member whose sole responsibility is to listen to student cases and teach. If this evaluation method is used, the evaluator must write down specific comments and observations of the student's interaction with patients. These formative comments will help the clerkship director when he or she is writing the summative evaluation at the end of the clerkship.

Oral Presentations

This method will evaluate how well a student can research a topic and present the information in a clear and concise manner. The student must be given clear instructions at the beginning of the clerkship on which topics are appropriate, what are key points to include in the presentation, and how their oral presentation will be evaluated. The oral presentation can then be done at the end of the rotation which gives the student plenty of time to research their topic and prepare their presentation. Things that can be evaluated during an oral presentation are mastery of subject matter, organization of information, communication skills, ability to answer questions, and quality of handouts / slides. The clerkship coordinator will need to make sure that a faculty member (usually the clerkship director) is available to listen to the student's presentations and knows how to grade the presentation.

Shift Evaluation Cards

71% of emergency medicine clerkship directors utilize a shift evaluation card to analyze the clinical aspect of a student's performance [2]. A shift evaluation card can be used to evaluate a student's history and physical examination skills as well as their ability to formulate the data they have gathered into an appropriate differential diagnosis and workup plan. Professionalism,

communication, and work ethic are other examples of what can be evaluated in a shift evaluation card.

This method is an inexpensive and easy way for faculty and residents to evaluate students after each shift while providing a great means to give immediate feedback. The coordinator and clerkship director are able to obtain the opinions of many different evaluators on each student which provides a robust and unbiased evaluation of the student. A downside with using a shift evaluation card is that faculty and residents are prone to either handing in the shift evaluation card late or not at all. One solution includes having the student document in a binder who they gave their evaluation cards to and on what date. The clerkship coordinator should review this binder every few days and then contact the evaluator 2 to 3 days after they were handed a card if the evaluation card has not been received. If after that notice a card still has not been handed in, the clerkship director should be alerted and they will deal with the situation. Another solution is having the evaluator place the evaluation card once it is completed into a sealed envelope and having the evaluator sign on the flap and then having the student turn in the evaluation card. This places the responsibility of getting the evaluation card to the coordinator on the student.

Susan Ferrell [3] outlined the following suggestions that would help make the shift evaluation card successful:

- Evaluation matrices (the way each competency like communication or history taking skills is graded) should be simple to use and evaluate a specific set of behaviors
- Specific examples should be given for each area analyzed on what constitutes a fail, low pass, pass, high pass, honors
- Residents and faculty should be trained on how to use the shift evaluation card
- The overall evaluation card should be simple and easy to use

Please see Appendix A for an example of a shift evaluation card.

Simulation Cases

Simulation has taken a bigger role in the emergency medicine clerkship. Simulators can closely resemble real-life scenarios with some simulators having the capability to have changes in vital signs or breathing depending on actions being done in a timely fashion by the student. This can allow for the evaluation of a student's problem solving skills and clinical knowledge as a simulation case progresses. In addition, many different and dangerous procedures such as intubation and tube thoracostomy can be safely taught and evaluated on a simulation machine in comparison to a real patient. Very sick patient cases can also be entirely run by students via a simulator which could be dangerous with a real patient. A downside to simulation is that it is very expensive and not all medical schools have it. Even if the medical school does have a simulation center, it may be difficult to schedule time for the students as many other departments in the hospital will utilize the simulation center. In addition, a faculty member or resident who is adept at simulation will be required to do the cases with the students. The clerkship coordinator will need to book in advance all the simulation time that will be required, gather all necessary equipment that will be used in the simulation cases, and ensure a faculty member or resident

adept at simulation is available. More information is provided in Chapter 4: Simulation in the Emergency Medicine Clerkship.

Objective Structured Clinical Examination (OSCE)

The OSCE is a great way to evaluate how well a student can communicate and obtain a history and physical exam on a standardized patient (an actor who is the playing the role of a patient). The standardized patient is given details about a patient scenario as well as a script on what they will say to potential questions or how to react to certain physical exams by the student. This script and patient scenario will need to be created by either the clerkship director or a faculty member. An evaluator is then either in the room or watching via camera the interactions between the standardized patient and the student and grading the entire process. Generally, there are multiple stations in an OSCE that the students will go through so that they can be evaluated on different cases. A drawback to this method is the expense that is incurred with getting standardized patients for each station in an OSCE. You also need a patient room where the OSCE can be done along with any other equipment that will be necessary. Getting evaluators to grade the OSCE can be difficult as well. The job of the clerkship coordinator will be to ensure that the standardized patients, students, and evaluators are all scheduled for the same time and that the rooms are booked for the OSCE.

Clerkship Test

There is no National Board of Medical Examiners subject test in emergency medicine at this time. As a result, many medical schools utilize a "home-grown" test that is generally created by the clerkship director and/or other emergency medicine faculty. The test should cover lectures and reading assignments that were given to the medical students during the rotation. Optimally, test question reliability and the level of difficulty of each question should be examined via statistical means [1]. If this cannot be done, then the test should be reviewed periodically to see if some questions are too difficult or too easy. For questions that many students are not answering correctly, this may require either adjusting a lecture so that the information involved with the question is taught better or removing the question entirely. Once a final test has been created, the same test must be given at all sites students are rotating to provide fairness and remove complaints that a test at one site is easier than another site's test.

The clerkship coordinator will be in charge of administering the test and coordinating the test at other sites. The room where the test will be administered will need to be booked in advance and should be a quiet room where students can take the test without distraction. Students should be given clear instructions on test day policies such as no use of cell phones, books, or other electronic equipment. Inform the students prior to test day if they need to bring a pen or a number two pencil. If the test is to be done online, then each student will need their own unique username and password as well as access to a computer.

A policy should be in place if a student is not able to take the test on the assigned day due to illness or residency interview. The policy should outline what potential days the student can

take the test on. If a student has a question after taking the test about a particular question, a meeting with the clerkship director should be arranged to address that issue.

A policy should also be in place if a student fails the clerkship test. This test failure policy must outline when a retest can occur. If the student is not to be retested, then an alternative remediation assignment such as a case report may need to be enacted. The highest final grade for a student who fails a test and then retests should be specified. For example, the final grade for a student who failed the test can only be a pass no matter how well they did on the retest or remediation assignment. The entire test failure policy should be in the clerkship handbook and made aware to students on the day of orientation.

Final Grade

The grade breakdown for the clerkship details how the final grade was obtained. The breakdown assigns a percentage to each component of the grade. For example,

- Clinical evaluation via shift evaluation cards   = 65%
- Emergency medicine clerkship test   = 25%
- Oral presentation   = <u>10%</u>

    Total   = 100%

These percentages are just an example. In general, the clinical evaluation is more heavily weighted then the test and other methods of evaluation. The grading breakdown should be in place prior to the start of the academic year. Like all important information, it should be available in the student handbook, website, or course management software.

The grade cutoffs should also be in place at the start of the academic year. The grade cutoffs outline what grade is an Honors, High Pass, etc. Listed below is an example of the grade cutoffs.

- Honors   93% - 100%
- High Pass   80% - 92%
- Pass   70% - 80%
- Low Pass   60% - 69%
- Fail   Less than 60%

Your school may only utilize a pass / fail grading system. If this is the case, there will still need to be a cutoff on what constitutes a failing grade. For schools that utilize an Honors, High Pass, Pass, Fail system, the number of Honors, High Pass, Pass, and Fail grades that were given over the course of an academic year should be analyzed. If it is noted that too many (or not enough) Honors grades were given out, then the cutoff for Honors may need to be raised or lowered accordingly for the next year.

Student Grade Appeals

Despite attempts to make the grading as fair as possible, some students will feel that they deserved a better grade. A policy should be in place that outlines how students can appeal their grades. This policy should be made available in the clerkship syllabus and/or clerkship website. The Grade Appeals policy should outline the following;

- What is the limit for days after the grade is handed in that a student can appeal (For example, you do not want a student who rotated 6 months ago appealing their grade)
- Reasons why an overall grade can be lowered
    1. Act of unprofessionalism
    2. Repeatedly late for shifts
    3. Missing shifts
    4. Missing lectures
- The chain of command for who the student approaches for a grade appeal. An example is shown.
    1. Clerkship Director
        - Should be first person student approaches
        - Most times appeals will stop here
        - Student must have specific complaint about grade (Unfair attending, sickness, shift evaluation cards not handed in)
        - Clerkship coordinator should be at meeting to document what was said
    2. Department Chairman
        - Is another emergency medicine attending who can view all the evaluation cards, test grade, and hear student's complaint
        - Generally will try to bring about a compromise
    3. Student Affairs Office
        - When the above 2 steps have failed
        - Now a representative from the medical school hears the student's complaint
        - All copies of grading evaluations should be handed in to student affairs office
        - Issue should be settled at this point
    4. Academic Standing Committee / Dean's Office
        - Final round of appeals
        - All information will be reviewed and a decision will be made

The above is an example of a grade appeals process. The medical school may have a grade appeal process already in place which a coordinator should follow. The most important thing is to make sure that the coordinator has all documentation of the student's performance including any documentation of unprofessional behavior, tardiness, missing of shifts, etc. It is very difficult to prove why a student's grade was lowered if there is no documentation to back it up.

Key Points

- Multiple evaluation tools such as a combination of shift evaluation cards, direct observation, and a clerkship test should be used to evaluate students rather than a single tool
- The clerkship coordinator should see what resources are available which will help decide which evaluation tools are used
- A policy should be in place for students who cannot make the day of the assigned test
- The final grade breakdown and cutoffs for grades must be made available to students via the clerkship handbook or website
- A grade appeals policy should outline who the student needs to approach to appeal their final grade and reasons that a final grade can be lowered

References

1. Manthey DE, Coates WC, Ander DS, et al. Report of the task force on national fourth year medical student emergency medicine curriculum guide. Ann Emerg Med. 2006; 47: E1-E7.

2. Wald DA, Manthey DE, Kruus L, et al. The state of the clerkship: a survey of emergency medicine clerkship directors. Acad Emerg Med. 2007; 14: 629-634.

3. Farrell SE. Evaluation of student performance: clinical and professional performance. Acad Emerg Med. 2005; 12: 6-10.

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HISTORY AND PHYSICAL EXAM				
Extremely poor H&P with no organization.	Often incomplete or inaccurate histories. Poor interviewing skills. Exam is incomplete.	Usually complete and accurate but occasionally missing information. Exam is generally complete.	Complete & Accurate. Histories organized and comprehensive. Physical exam is reliable.	Comprehensive information. Excellent interview skills and technically sound exam. Elicits subtle findings. At the level of a first year resident.
FAIL	LOW PASS	PASS	HIGH PASS	HONORS

DIAGNOSTIC TESTS				
No plan or reason for tests.	Frequently overlooks basic tests; difficulty interpreting results.	Understands basic tests and their interpretation. Decisions usually right. PASS	Has complete plan for tests/consults. Efficient.	Tests and plans are thorough, comprehensive, precise & cost effective. Can interpret results.
FAIL	LOW PASS		HIGH PASS	HONORS

PROCEDURAL SKILLS				
Very poor technique. Puts pt at risk.	Does not use proper technique. Awkward with equipment.	Some difficulty using proper technique. Fails to organize all equipment necessary.	Uses proper technique. Organizes equipment. Knows basic landmarks. Requires some assistance. HIGH PASS	Procedures performed with ease & dexterity. Organizes equipment. Able to put pt at ease. Needs minimal assistance. HONORS
FAIL	LOW PASS	PASS		

MEDICAL KNOWLEDGE				
Very poor recall, no clinical acumen.	Poor recall of basic science, pathophysiology.	Has basic knowledge of disease process/events.	Above average knowledge, uses to help clinically.	Superior knowledge base with clinical application. At level of first year resident.
FAIL	LOW PASS	PASS	HIGH PASS	HONORS

DIFFERENTIAL DIAGNOSIS				
Incorrect or inappropriate differential.	Generates differential diagnosis that is incomplete.	Can generate short list of appropriate differential diagnosis.	Synthesizes clinical knowledge into a broad differential.	Sophisticated and extensive differential appropriate to chief complaint.
FAIL	LOW PASS	PASS	HIGH PASS	HONORS

COMMUNICATION SKILLS				
Antagonizes pts and family. No logic to clinical record.	Communicates poorly with pts. Clinical records incomplete/illegible.	Utilizes basic communication skills. Written records occasionally incomplete	Student utilizes effective communications skills with pts. Written records complete and organized. HIGH PASS	Communicates very well with pts and families. Accurate and thorough written records. Excellent documentation.
FAIL	LOW PASS	PASS		HONORS

APPENDIX A. Shift Evaluation Card (Front side of card)

APPENDIX A. Shift Evaluation Card (Back side of Card)

The medical student needs to work on **(Must check one)**

☐ Communication

☐ Differential Diagnosis of _____

☐ Reading about _____

☐ Other _____

The above feedback given to student ☐Yes ☐No

Procedures performed: _____

Please check appropriate descriptor for medical student (Check all that apply)

☐ Enthusiastic   ☐ Hard Working ☐ Punctual   ☐ Professional   ☐ Caring

☐ Quiet ☐ Unprofessional   ☐ Uninterested   ☐ Tardy   ☐ Uninvolved

If this student wanted to match in EM, how hard would you recruit them?
 ☐Actively recruit   ☐Good to go into EM   ☐Would try to dissuade from EM

Comments: _____

How the Liaison Committee on Medical Education (LCME) Accreditation Standards Affect the Coordinator and the Clerkship

Student Scenario

The clerkship coordinator is sitting down with the clerkship director discussing what will be needed for the EM clerkship in the upcoming academic year. The clerkship director has many new ideas that they want to introduce and that each student will be responsible for. The coordinator wants to understand what each new idea entails, if it is feasible, and how they can organize it so that everything will run smoothly.

Clerkship Director: "This upcoming year, we absolutely need to make sure that we give each student feedback at the middle of the rotation. So please make sure to collect all the shift evaluation cards at the middle of the rotation and give them to me."
Coordinator: "Um….sure. It's going to take a lot of time and effort to bug people to hand in the shift evaluation cards as soon as possible and collect them by the midpoint of the rotation. But I'll do my best if you think it is essential for medical student education."

Clerkship Director: "Excellent. And we'll also need to make sure that each student sees every required patient encounter during the rotation. We'll need to monitor each student and remind them if they're missing any required patient encounters."
Coordinator: "Ok. That's going to require a lot of work. How do we monitor what each student sees? What is going to be the mechanism to remind them that they're missing a required patient encounter? How do we….."

Clerkship Director: "Oh, I forgot. We'll also need a remediation process for each required patient encounter in case the student didn't have the opportunity to see it in the emergency department."
Coordinator (About to pull your hair out): "Why do we have to do all of these time intensive tasks?"

Clerkship Director: "Well, the LCME wants us to do it."
You: "The LCME? I thought they mainly regulated the medical school itself. What do they have to do with our emergency clerkship?"

Clerkship Director: "Everything……."

Introduction

  The Liaison Committee on Medical Education (LCME) is the authority that accredits medical education programs for MD degrees in the United States and Canada. Accreditation from the LCME is required by medical schools to receive federal grants for education, participate in federal loan programs, and to allow its medical students to take the United States Medical Licensing Exam (USMLE). Due to these important reasons, it is essential for medical schools and the required clerkships to adhere to the LCME Accreditation Standards. These standards can be found at www.lcme.org [1] in the Accreditation Standards section.

  The Accreditation Standards are requirements that must be met by the medical school and each required clerkship. The standards are revised and updated periodically. It is very important for the clerkship coordinator to be aware of the most current accreditation standards and how they affect their emergency medicine clerkship if it is a required clerkship. Knowing the standards will provide good understanding on why the clerkship director is asking you to track each student's patient encounters and collect all shift evaluation cards in the first few weeks for mid-rotation feedback for students. The McLaughlin paper in Academic Emergency Medicine in 2005 [2] is an excellent resource that explains the LCME guidelines and how they affect the EM clerkship. This chapter will try to update some of the standards touched on in that paper and detail some new standards all in the context of how they affect the clerkship coordinator.

LCME Accreditation Standards

ED-2 There must be a system with central oversight to assure that the faculty define the types of patients and clinical conditions that students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of student responsibility. The faculty must monitor student experience and modify it as necessary to ensure that the objectives of the clinical education program will be met.

  This accreditation standard will have the most direct effect on the EM clerkship and coordinator compared to all other standards. The clerkship director should outline what patient encounters each student must see on their EM clerkship along with the student's level of responsibility. Once that has been decided, a system will need to be created that will allow the students to log all of their patient encounters while letting the clerkship coordinator and director monitor what encounters have been seen and which still need to be seen for each student. An example is the web-based case log that Cornell University developed which allowed students to record their encounters in a brief and succinct manner while the medical school could download and track which patient encounters were seen and which still needed to be observed [3].

  In addition, a remediation process needs to be created for each patient encounter if it is not seen by the student. In a study involving pediatric clerkships, computer simulations were the most common way that remediation was provided with standardized patients, web-based cases, and paper cases being other methods [4]. A specific remediation process needs to be outlined for each required patient encounter.

In summary, the clerkship coordinator must make sure of the following:
1. Students are aware of the required patient encounters on the first day of the rotation
2. Students are aware of the remediation process for each patient encounter if it is not seen
3. A system is utilized where students can log their patient encounters which can be reviewed by the clerkship coordinator and director. If the medical school has such a system in place, the coordinator should
    i. Make sure students know how to access the system and use it
    ii. Know how to access the system themselves to track the patient encounters

ED-3 The objectives of the educational program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education.

The clerkship coordinator and the clerkship director must make sure that all faculty and residents who will teach the medical students know the goals and objectives of the EM clerkship. One way to be in accordance with this standard is to give a written copy of the goals and objectives at the start of the academic year to each faculty member and resident who should then sign that they received the copy. All students must also be made aware of the objectives of the EM clerkship. This can best be accomplished on the first day during orientation. It may also help to have the goals and objectives listed where the students can easily access them throughout the rotation so that students that missed orientation will not be able to say that they were not made aware of them.

ED-8 There must be comparable educational experiences and equivalent methods of evaluation across all alternative instructional sites within a given discipline.

This standard applies to EM clerkships where students are sent to multiple hospital sites. The clerkship director and coordinator must make sure that the educational objectives, grading policy, and required patient encounters are exactly the same at all sites. The clerkship coordinator may have to arrange meetings with the clerkship director and other sites periodically to ensure that there are no discrepancies. Any changes in the goals, objectives, grading policy, or required patient encounters will need to be made in conjunction with all the sites.

ED-17 Educational opportunities must be available in multidisciplinary content areas, such as emergency medicine and geriatrics, and in the disciplines that support general medical practice, such as diagnostic imaging and clinical pathology.

This standard explains why an emergency medicine rotation is offered in many medical schools. It is also a reason why many medical schools are making emergency medicine a required clerkship for all students as it is an easy solution to this standard.

ED-17-A The curriculum must introduce students to the basic principles of clinical and translational research, including how such research is conducted, evaluated, explained to patients, and applied to patient care.

The medical school may require each clerkship to expose students to research if there is no separate course that does so. For the emergency medicine clerkship, one way to adhere to this standard may be to conduct a journal club where students are given an article and must discuss how the research can be applied clinically in the emergency department. The coordinator may need to provide the journal article to each student, arrange time and conference space for the journal club, and find a facilitator (either faculty member or resident) who is familiar with the journal article and can lead the journal club.

ED-24 Residents who supervise or teach medical students, as well as graduate students and postdoctoral fellows in the biomedical sciences who serve as teachers or teaching assistants, must be familiar with the educational objectives of the course or clerkship and be prepared for their roles in teaching and evaluation.

This standard is similar to ED-3 which states that residents must be given a copy of the educational objectives of the EM clerkship. What is different in this standard is the last part of the statement which states residents must "*be prepared for their roles in teaching and evaluation*". The clerkship coordinator will need to work with the clerkship director to set up teaching sessions for residents on how to teach medical students. The site http:// www.residentteachers.com/ [5] can be used as a resource to help residents learn teaching skills. Residents will need to be adept at giving feedback to a medical student and teaching at the bedside. There also needs to be a process where students can give feedback on how well a resident teaches with this feedback being returned in an anonymous fashion back to residents. The most important part of this process is to ensure that specific instruction is being given on how to improve a resident's teaching if any deficiencies are found.

ED-26 The medical school faculty must establish a system for the evaluation of student achievement throughout medical school that employs a variety of measures of knowledge, skills, behaviors, and attitudes.
ED-27 There must be ongoing assessment that assures students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the school's educational objectives.
ED-28 There must be evaluation of problem solving, clinical reasoning, and communication skills.

These three standards can be analyzed together. Essentially, all three state that there needs to be a process for evaluating a student's knowledge, skills, and abilities. The clerkship coordinator should make sure that each student is being evaluated according to the process created by the clerkship director and faculty. If shift evaluation cards are being used for evaluation, the

coordinator may need to develop a method to ensure that evaluation cards are being handed in by faculty and residents in a timely fashion.

ED-30 The directors of all courses and clerkships must design and implement a system of formative and summative evaluation of student achievement in each course and clerkship.

This standard is self-intuitive. However it is the information that is listed underneath the standard that is most important. The LCME in their description of this standard states "*an important element of the system of evaluation should be to ensure the timeliness with which students are informed about their final performance in the course/clerkship. In general, final grades should be available within four to six weeks of the end of a course/clerkship.*"

The clerkship coordinator should learn what their respective medical school's policy is for when grades need to be turned in (whether it is 4, 5, or 6 weeks). Once that is ascertained, the coordinator should make sure that all tests, shift evaluation cards, and other forms of evaluation are made available to the clerkship director as soon as the clerkship is completed so that grades may be calculated and turned in before the 4-6 week time window. The coordinator may need to remind the clerkship director if the grades have not been handed in and the due date for grades is approaching.

ED-31 Each student should be evaluated early enough during a unit of study to allow time for remediation.

For emergency medicine clerkships that are 4 weeks (or longer), feedback must be given to the student so that they have time to correct any deficiencies. Generally, it is optimal to give this feedback at the middle of the rotation so that there will be enough evaluations and comments by that time while the student will still have half the rotation to improve or continue their excellence. The clerkship coordinator should make sure to gather all shift evaluation cards and other forms of evaluation on each student so that the clerkship director will have all the information necessary to provide mid-clerkship feedback.

Key points

- A system should be in place to track each student's patient encounters so that they can be reviewed with a remediation process for each required patient encounter if it is not seen clinically

- Faculty and residents must receive a paper copy of the goals and objectives of the clerkship

- Residents should be taught how to teach medical students with an evaluation process on how well residents are teaching

- Mid-clerkship feedback has to be provided to each student on rotations 4 weeks or longer

References

1. www.lcme.org. Accessed 29 December 2009.

2. McLaughlin SA, Hobgood C, Binder L, et al. Impact of the Liaison Committee on Medical Education requirements for emergency medicine education at U.S. schools of medicine. Acad Emerg Med 2005; 12(10): 1003-1009.

3. Bardes CL, Wenderoth S, Lemise R, et al. Specifying Student-Patient Encounters, web-based case logs, and meeting standards of the Liaison Committee on Medical Education. Academic Medicine 2005; 80(12): 1127-1130.

4. Li S, Smith S, and Gigante J. A national survey of pediatric clerkship directors' approaches to meeting the LCME ED-2 requirement for quantified patient criteria for medical students. Teaching and Learning in Medicine 2007; 19(4): 352-356.

5. http://www.residentteachers.com/

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Visiting Students

Student Scenario

It's the time of year when students are scheduling their rotations and electives for the upcoming year and the clerkship coordinator receives a call from a student who wants to do a visiting rotation.

Student: "Hi, my name is John Smith and I would like to schedule an elective visiting rotation at your hospital."
Coordinator: "We are happy to hear that you would like to spend time in our department. Let me go through the procedure on applying."

Student: "Can you tell me if you have space available before I go through the process of applying?"
Coordinator: "Currently our students are in the process of selecting rotations as well and we need to give them initial priority to any open spots. I will let you know that traditionally demand is high from our students for July, August and September and we usually cannot accommodate visiting students during those months. Our students should be done scheduling their rotations in May."

Student: "I understand. How should I apply?"
Coordinator: "If you are a student in a United States MD program, you should apply through the AAMC Visiting Student Application Service (VSAS). If you are an osteopathic student you will apply directly through our visiting student office, and if you are an international student, we have a Global Health Office which handles those applications."

Student: "I can apply through VSAS. How long does it take to be notified if I can do a rotation?"
Coordinator: "The College of Medicine collects all visiting student application requests and works with your home school to obtain all necessary information. Once everything is received they will forward the application to us for approval. Be sure to include a couple of different months that you are willing to come."

Student: "What if the dates of my rotations don't match with your rotations?"
Coordinator: "Unfortunately our rotation is set up for a 4 week block with an orientation on the first day and an exam on the last day. Therefore, the rotation dates will have to match."

Student: "Thank you. I will go ahead and apply."
Coordinator: "Why don't you give me your email address and I will send you the link to apply and keep an eye out for your request to come through from the College."

Introduction

Visiting medical students can be a great opportunity for your program to see a student who is interested in applying to an emergency medicine residency program. It is a chance for the faculty to observe their performance clinically instead of just reviewing their credentials on paper. It also gives the student a chance to observe the inner workings of your department and see if the site is a good fit for them in terms of a future place of residency. The role of the clerkship coordinator is to make the visiting rotation goes as smoothly as possible. Having everything ready for the visiting student prior to their arrival will make the lives of both the visiting student and the clerkship coordinator much easier.

Application Process

If your school participates in the AAMC Visiting Student Application Process (VSAS), the student should apply for visiting rotations via that site (www.aamc.org/vsas). If not, follow the guidelines in place through your medical school. Generally the medical school will collect all necessary information on the student to "certify" they are in good standing to participate in an away rotation. This includes the application, verification of completed clerkships, health insurance information, immunization records, and any application fees. Once all information is received, the medical school will forward all the information to the department and request approval for the rotation. At that time it is the department's decision to accept or decline the student's request. That information is then conveyed to the medical school for them to notify the student of the decision.

Accepting or Declining the Student

Accepting or declining a student is always a tough decision. One reason to accept a request would be space availability during a block. The clerkship coordinator must be careful to not schedule a visiting student during a busy month where they would take away a slot from one of their own home program students. The other reason to accept a visiting student is the opportunity for the faculty to work clinically with someone with the potential to be a future resident in the program.

Prior to the Rotation

Now that the student has been accepted, the coordinator should contact them via email and clearly identify themselves as the contact person and give them all of their information such as name, address, phone, fax, and email. The dates of the rotation should be reviewed with the visiting student and the student should be made aware that they will be receiving information regarding the first day of orientation approximately three to four weeks prior to the start of the rotation. Any additional student information that may be needed in order to get computer access

log-ins, ID badges, and access to any area requiring badge access such as the ED, call-rooms, etc. should be obtained by the coordinator at this time.

One month prior to the start of the rotation, the coordinator will need to complete the following
- •Paperwork for a computer log-in access for the student
- •The ID badge processing form (some sites require security background checks and drug screens prior to the student arriving or on the first day)
- •Paperwork for access to web-based teaching/evaluations, podcasts, patient logs

A few weeks before the rotation, the coordinator should send the visiting student the date, time, and location of the orientation. Include any maps that may help direct the visiting student. The coordinator may also email the home students completing their clerkship during the same month to let them know that there will be a visiting student joining them. Include the name and email address of the visiting student and ask the home students to contact the visiting student if interested in welcoming them to the institution.

Approximately one week prior to the rotation, the coordinator should email the visiting student once again and send them their computer log-ins for the course websites. This will give the student an opportunity to try some of the usernames and passwords prior to arriving to make sure they have the necessary access.

First Day of the Rotation

The coordinator should seek out the visiting student during orientation and introduce themselves. At this time it should be ascertained if the visiting student is settled with their housing accommodations and if they have any questions or problems. During the orientation, the coordinator should introduce the visiting student to the other students and encourage sharing of contact information. When putting together the orientation packet for the visiting student for the month, be sure to include additional information pertinent to having a successful elective:

1. Give the visiting student parking permit information such as the location of the parking office and office times. The coordinator may want to include a paid parking voucher for the first day.
2. ID Badge – Information regarding where and how they obtain their ID badge
3. Copy of their computer access log-ins and frequently used websites
4. Form required for obtaining scrubs through the hospital
5. Map of the hospital, medical center and/or campus
6. Contact number of ED, Clerkship Director, Clerkship Coordinator

Throughout the Month

The coordinator should be available to answer any questions that may come up throughout the month from the visiting student. The coordinator should also be attentive to the needs of the visiting resident. Remember, the reason the visiting resident choose to do a rotation

at your institution was to see if they would be happy completing their residency there. The coordinator should try to schedule a 30-minute meeting during the month for the visiting student to meet with the clerkship director and the residency program director. This will give the visiting student an opportunity to ask specific questions about the institution and allow the clerkship and program directors a chance to get to know the student before their official interview. Visiting students who apply to the residency program should be given an interview unless clearly not a good candidate. If interview season is during the time the student is there, they should be included in an interview date so they would not have to make a second trip during a different month.

End of the Month

At the end of the month, the coordinator should help ensure that the visiting student's rotation evaluation is promptly completed and returned to the student's home institution. The coordinator should send the student a brief email letting them know that it was hoped that they enjoyed their rotation and to contact the coordinator for any additional information.

Conclusion

Accepting visiting students is an excellent way to give students an opportunity to spend time at your institution and a way to "interview" prospective residency candidates prior to an official interview. It is a way to get lucky and get the "diamond in the rough" student that may have been passed over on paper, but would be a perfect fit for the residency program.

Key Points

- Many medical schools have begun to use the Visiting Student Application Service (VSAS) and a coordinator will need to ascertain if their school uses VSAS or another process for visiting student applications
- The coordinator should ensure that the home students have enough spots during an academic block when accepting a visiting student
- All paperwork for an ID badge, computer access, parking, etc. should be completed well in advance for visiting students
- The coordinator should provide the visiting student with detailed information about the clerkship and the hospital in a packet given out on orientation
- The coordinator should be available throughout the month to answer questions for visiting students as they may become future applicants and residents in the program

References:

1. Association of American Medical Colleges. Guidelines for Medical Schools Regarding Visiting Medical Students form Other LCME Medical Schools. http://www.aamc.org/members/gsa/00guideline.pdf 26 Oct 2009.

2. Association of American Medical Colleges. Extramural Electives Compendium. http://www.aamc.org/students/medstudents/electives/start.htm 26 Oct 2009.

3. VSAS The Visiting Student Application Service. http://www.aamc.org/programs/vsas/ 26 Oct 2009.

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Residency Process for Emergency Medicine
Bound Students

Student Scenario

It's January and today is the third-year medical student orientation to prepare them for their final year of medical school. The students have been in lecture since morning and now gather in the great hall of the Medical Science building. The hall is lined on both sides with posters and tables staffed by representatives of residency programs of the school and from around the state. It is noisy and chaotic as the students wind their way through the crowd gathering brochures, pens, candy, and a plethora of free goodies. Eventually each student arrives at the table they believe best represents their future in medicine.

Student: "I'm interested in Emergency Medicine (EM) as a career, but I have no idea what I should be doing right now so that I can maximize my chances in matching into EM."
Coordinator: "Well, you've come to the right place. I'm the EM student clerkship coordinator and one of the assistant residency coordinators. My job is to help you see what emergency medicine is all about so that you can make the right decision about your future career."

Student: "Well, I feel like emergency medicine is right for me, but I'm not sure what I should do to make sure that this feeling is right."
Coordinator: "You can talk to one of my residents who is in the emergency medicine residency program and is at this table. They will tell you all about the positives and negatives of a career in emergency medicine. Once you're done talking to them, I can further help you out by recommending an EM advisor who can steer you through the next year to ensure that EM is the right career for you along with maximizing your chances in matching in this competitive field."

Student: "You are so helpful! Thank you very much!"
Coordinator: "My pleasure. My job is to make sure that we can identify students who are interested in EM as early as possible and guide them."

The EM clerkship coordinator has a responsibility to guide students interested in a career in Emergency Medicine. It is essential that the coordinator figure out which students are in interested in EM, how many are interested in EM, and if students have an EM advisor. It is crucial to ensure that students make the right decision and the whole process of going into EM goes smoothly.

Identifying EM Interested Students

This process is fairly simple as EM interested students identify themselves. They will be the first to arrive and the last to leave the table at the residency fair or they will seek the coordinator out during their third year of medical school. There will be those students who are certain EM is the career for them and others who are on the fence deciding which specialty is best for them. The coordinator has the opportunity to provide as much information as they can about the EM clerkship and EM as a career. The coordinator can explain how the clerkship operates and should utilize upper level residents to answer questions about residency and resident life. Students should be encouraged to participate in the Emergency Medicine Student Interest Group (EMSIG) if one is available. EMSIG activity and volunteer work with EM patient populations is looked upon favorably by almost all programs. The clerkship coordinator should check with the residency coordinator to see if the medical students would be welcome to attend didactic lectures and journal clubs. Involvement in EM research is important for some programs. Attending the annual Academy of Academic Emergency Medicine (AAEM), Society for Academic Emergency Medicine (SAEM), or American College of Emergency Physicians (ACEP) meeting is looked upon favorably and is a great way to make sure that the specialty "feels right". SAEM and ACEP both sponsor residency fairs, a great way for students to have face time with residency directors and residents and gather additional information.

Any opportunity for medical students to be exposed to EM activities will be beneficial. Opportunities may include shadowing in the emergency department of the teaching hospital as well as in the local community non-teaching hospital to see what the practice outside of the teaching hospital is like. Additionally, some programs may offer ambulance ride-along opportunities or a few hours rounding with services such as Toxicology.

Once a student identifies EM as a potential career interest, it is important that they become an "informed consumer". This ensures that EM is a good match for them and that they properly position themselves for the application process. The clerkship coordinator should provide their contact information and encourage students to call them anytime. The coordinator should assure students that if they do not have the answers that they will find someone with the answers.

Establishing an EM Advisor

Like a rudder on a ship, the faculty advisor is essential in helping the EM interested student navigate the fourth year. Some programs have a few advisors, others many who are available for selection and, depending on the institution, are either assigned by Student Affairs or chosen by the students. The coordinator may have the opportunity to assign advisors to the students and so it can be advantageous to become familiar with the advisors so that they don't overburden one advisor with too many students or give an advisor a student during vacation time or a hard research month. Matching a student with the right advisor can be as important as finding the residency that is the right fit. When possible it is preferable to have an advisor from the field of EM for the EM bound student.

The advisor should be established as early as possible at the beginning of the fourth year. The student will meet with the advisor throughout the year as necessary to identify goals, deficiencies, and opportunities.

Appropriate Fourth Year Scheduling

The fourth year medical student (MS4) rotation schedule should be designed to include a minimum of 1 and a maximum of 3 EM rotations. If doing over two rotations, the 3rd rotation could be in an EM niche area such as Emergency Medical Service (EMS), Toxicology or Peds-EM. It is critical that at least one of these rotations be finished before October 1st in order to assure that a standard letter of recommendation (SLOR) is generated as part of their application. For an example of a SLOR, please visit the site http://www.cordem.org/DOWNLOAD/Slor.pdf.

If doing 2 EM related rotations, students should seek the counsel of their advisor about what the second site would best entail … e.g pressing geographic needs, exploration of programs of different training formats (3 vs 4 year), different patient populations, or with differing educational philosophies. Ideally, the student should seek at least one rotation that affords primary patient care responsibility (e.g. it is "their patient", they get to actually write the orders, etc.).

Other rotations that are helpful include a critical care medicine and/or trauma surgery rotation along with filling in any areas that their clinical experience did not address well.

The Standard Letter of Recommendation (SLOR), Course Grades, and School Evaluations

The EM clerkship coordinator plays an important role in the residency application process for the students. The EM residency director may rely heavily on the coordinator for the student's course grade, comments about the student from faculty members, and feedback about the student from residents. Much of this information will be required for whoever writes the SLOR for the student.

The clerkship coordinator may also be contacted by the medical student for advice and resources regarding the SLOR [1]. This is a good opportunity to share electronic resources with the students to aid them in the SLOR and application process. As they start their EM rotation, they want to be sure to know who will be writing the SLOR, and meet with that faculty before the end of the rotation. The student should bring their up-to-date transcript, curriculum vitae (CV), personal statement, Step 1 score, and picture.

Students should visit the SAEM web site containing information targeting medical students (http://www.saem.org/saemdnn/). The student should read this information before meeting with their faculty advisor and SLOR writer. Other helpful sites include the AAEM site (http://www.aaem.org/) for medical students - they may join (for free) and have access to the extensive "Rules of the Road for Medical Students", and EMRA (http://www.emra.org/) (membership required).

EM residency directors have identified these items as the most important in selecting applicants to interview:

- A SLOR from an ED rotation at a site sponsoring an EM residency
- MS3 clerkship grades
- USMLE score
- Activities, especially if the student was in a leadership position

As mentioned previously, finishing at least one EM rotation before October 1st is critical to the application process. At least one SLOR is recommended for application to residency programs. It is vital that the clerkship coordinator monitor the status of grades generated from their program. The coordinator will work closely with the EM clerkship director to produce grades and summaries to be delivered to the EM residency director or person designated to write the SLOR. Additionally, visiting students will have evaluations from their home schools that are to be completed in a timely manner. These evaluations will need to be returned to the students' schools along with the course grade and a summary if applicable.

Application and Electronic Residency Application Service (ERAS)

Once the medical student knows EM is for them, they should begin their ERAS application in July of their 4th year with the plan to submit the finalized application no later than October 1st. The current year residency application timeline will be found on the ERAS website (http://www.aamc.org/students/eras/).   The student should begin their review of residencies at this time as well and begin to look for features that appeal to them. Discussing this process with the new Emergency Medicine Resident 1st Years (EMR1) at their institution and the away ED rotation adds additional perspective. A great question for the first year residents: "If you couldn't have matched here, where would you want to be?" The student should make sure to speak with their EM advisor during this time as well.

Additionally, if the student scored under the national mean on Step 1, they should strongly consider taking Step 2 in time to have the grade reported in ERAS by mid-October.

Special Situations

- **COUPLES MATCH:** The Couples Match may be used by married students, engaged students, close friends or any set of students that want to be matched in the same locality. The couple enrolls in the Match, but indicates they want to be in the Match as part of a couple. Couples apply and interview at programs separately, but within the same geographic region. Each couple completes a rank list, trying to rank programs equally. The couples are treated as a single entity by the Match computer.

- **MILITARY MATCH:** Students in the School of Medicine of the Uniform Services, University of the Health Sciences (the military medical school in Bethesda, Maryland), and students enrolled in the Health Professions Scholarship Program are obligated to use the Military Match. The latter owe the military one year for each year of funding with a two-year minimum obligation. A student may do this as part of the residency, or after completing a civilian residency, if allowed to defer. However, anyone may apply for a

military residency. The U.S. Army residency programs (all specialties) go through ERAS. The process is similar to the National Residency Match Program in terms of rank order lists. However, representatives of the teaching hospitals make the selection rather than a computer. Also, match results are distributed in December of the senior year. Students may still owe the military time sponsored as a resident (receives officer's pay, some benefits, and a salary bonus) upon completion of the residency.

There are pitfalls to the Military Match. There are generally many more applicants for military residency positions than available slots. So, military students will want to apply for both military and civilian Matches. Also, civilian residencies may be unwilling to take a student from the military unless there is written commitment that the student will not be pulled for active duty [2].

Key Points

- The clerkship coordinator should help identify students interested in emergency medicine and aid them in determining if emergency medicine is right for them

- Once a student has determined that they want to pursue a career in emergency medicine, the clerkship coordinator should provide resources (such as the websites listed in the references section) for the student that will help them in the EM application process

- An EM advisor should be assigned to each student by the clerkship coordinator if given the opportunity

- Medical students should obtain a SLOR from each EM rotation with at least one before October 1st

- ERAS applications should be completed by students by October 1st

References

1. Keim, S., Rein, J., Chisholm, C. D., & et.al. (1999, November). A Standardized Letter of Recommendation for Residency Application. *Academic Emergency Medicine* , pp. 1141-1146.

2. Wood, I. K. (n.d.). *"TAKING FLIGHT"*--PREPARING FOR RESIDENCY APPLICATION. Retrieved December 10, 2009, from http://www.medschool.vcu.edu/studentaffairs/match/documents/Taking%20Flight%20Preparing%20for%20Residency%20Application%20-%202008.doc

3. http://www.cordem.org/DOWNLOAD/Slor.pdf

To see a copy of the SLOR form

4. http://www.saem.org/saemdnn/
   http://www.aaem.org/
   http://www.emra.org/
   http://www.saem.org/saemdnn/ResidencyCatalog/tabid/680/Default.aspx
   http://www.ama-assn.org/ama/home/index.shtml
   Websites that will be helpful for prospective EM bound students

5. http://www.aamc.org/students/eras/
   ERAS website

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Career Development for the Clerkship Coordinator

Student Scenario:

Student: "How long have you been a clerkship coordinator?"
Coordinator: "Almost 6 years now."

Student: "Do you enjoy it?"
Coordinator: "I love it! Something I never pictured myself doing. The job found me."

Student: "So how did you get this job? What is your degree in?"
Coordinator: "That is the interesting part. I don't have a degree. However, this job has really spurred my desire to learn and I have returned to college to pursue my Bachelor's degree. I want to develop my skills and knowledge so I can help make my clerkship the best clerkship possible."

Introduction

Clerkship coordinators come from a variety of fields and educational backgrounds. Some are seasoned medical education program coordinators while others are new in their jobs with little training about their new position. With the changing environment of universities and medical schools, more and more programs are looking for individuals with a Bachelor's degree for the clerkship coordinator position. Regardless of the possession of a degree, career development will be essential and must be lifelong for every clerkship coordinator.   Career development is about self. By improving one's self, the coordinator will improve their ability to help run the emergency medicine clerkship and will, in essence, contribute to the development of countless future physicians. This will all lead to increased career satisfaction and longevity in doing something that the coordinator truly enjoys and cherishes.

Clerkship Coordinator and the Clerkship Director

A close relationship with the clerkship director will help a clerkship coordinator to develop professionally. The clerkship director will be the coordinator's biggest supporter as any growth and improvement in the coordinator will translate to improvement in the EM clerkship. It is essential that the coordinator periodically notify the clerkship director of all of their job responsibilities inside and outside of the clerkship. The clerkship director may need to speak with the chairman of the department if the coordinator's outside responsibilities are too many and hindering their ability to run the clerkship.
The coordinator should make sure to go over their career goals with the clerkship director. It is very important for the coordinator to set aside time to decide what it is they want to accomplish in their career. The coordinator may be surprised when they do this as what they thought they wanted to achieve may not align with what they truly want to accomplish. During this process, the coordinator can use the clerkship director as a "sounding board" who can help clarify their goals.   Once the coordinator has decided on their goals, a specific amount of time should be assigned for completion of these goals. The coordinator should have immediate, one year, three year, or five year goals. These chronological goals will serve as a template for the coordinator to follow and will allow the clerkship director to campaign for time and money from the department and medical school to help the coordinator achieve these goals.
The coordinator should go over what goals the clerkship director has for the clerkship. The coordinator may want to enhance or develop some skills which can help achieve these clerkship goals. For example, the clerkship director may be looking to create narrated Powerpoint® presentations or podcasts for the students. Having the skills to develop electronic media such as podcasts will make the coordinator invaluable for the clerkship. It can also increase the coordinator's visibility in the medical school as they will be viewed as an expert with regards to a particular skill. That could introduce other opportunities for advancement and career development.

Networking

      Networking is an excellent way for a clerkship coordinator to develop their skills, gain invaluable information about clerkship management, and receive advice about career development. It is a great forum where a coordinator can become aware of valuable resources that they never knew existed. Networking can save a lot of time and effort as a coordinator may find something that has already been created that can be invaluable for the clerkship or career development rather than wasting time "reinventing the wheel". One of the best things that networking can provide is the knowledge that the coordinator is not alone in this process and the problems they are facing in their clerkship and career are common problems that everyone is facing.

      There are many ways for a coordinator to get involved with networking. One way is to arrange a monthly meeting with all the other clerkship coordinators at the medical school. While the internal medicine and psychiatry clerkship coordinators will have problems that are unique to their fields, there are many common issues that affect all clerkships in general. It can also be a great venue where the coordinator can discuss the problems that are unique to their medical school which all coordinators there must face. For example, the medical school may require the coordinator to monitor certain patient encounters that each student must see. The surgery clerkship coordinator may have an ingenious and easy way of doing this which they could share with the emergency medicine coordinator. On the other hand, the emergency medicine coordinator may find that every clerkship is having difficulty with this issue and it may be better that all the coordinators bring this issue to the attention of the medical school as one strong voice.

      Other ways for a coordinator to get involved with networking would be to contact medical schools near them and form a local emergency medicine coordinators network. This way the coordinator can discuss any issues or problems which are unique to emergency medicine. If they are in a major city that has multiple medical schools, the coordinator may be able to share equipment for certain labs or organize city-wide simulation sessions which could give students a more robust experience while not over-utilizing their school's resources.

      Taking advantage of organizations and national meetings can also help the coordinator with networking and nurturing their career. Organizations like the Emergency Medicine Student Interest Group (EMSIG), if your institution has one, can introduce the coordinator to helpful information and contacts. The Emergency Medicine Association of Residency Coordinators (EMARC) is a national organization rich with talent, wisdom, and mentors with years of experience. In addition, EMARC holds an annual conference packed with information, education, and many other resources. At this meeting, the coordinator will readily find people who have been clerkship coordinators for many years. These people can function as mentors who can be consulted periodically via email or phone with regards to issues with their clerkship. They can also introduce the coordinator to other opportunities with regards to career development.

Skills Development

      The clerkship coordinator should evaluate their skills and education to determine what they can improve upon. The coordinator should be honest with themselves about any weak areas in skills, knowledge, or education. They should be sure to assess any lack of tools or resources.

      When the coordinator has determined their skill and educational needs, a plan should be created. The coordinator should take advantage of free training classes that may be provided by their employer, local libraries, or universities. They should find out if their employer provides tuition reimbursement or allows for a flexible schedule for school or classes. Again, a coordinator must be proactive by creating a plan and a proposal for their clerkship director. The coordinator should be ready to back it up with honesty, integrity, and action. Nothing asked is nothing gained.

      Table 1 is an example of a list of skills that are important to develop or gain for a coordinator. The table is not an all-inclusive list. A more detailed list of skills can be found at the end of Chapter 1in Table A.

Table 1. Skills For Clerkship Coordinators

Skill	Areas of Focus

Organizational Skills	• Orientation
	• Calendars
	   ○ Your work calendar
	   ○ Medical school calendar
	   ○ Student shift calendar
	   ○ Student lecture
	• Paperwork
	   ○ Visiting Students
	• Grades / Student Files
	• Time management

Computer Skills	• Windows based programs
	   ○ Word processing
	   ○ Spreadsheets
	   ○ Presentation software (i.e. Powerpoint, Keypoint)
	• Web-based
	   ○ Course website creation and maintenance
	   ○ Course management software
	   ○ Blogs
	   ○ Podcasts
	• A/V equipment management

Interpersonal Skills	• Communication
	   ○ Written
	   ○ Verbal
	   ○ Electronic (email)
	• Conflict resolution
	   ○ Dealing with angry student
	   ○ Schedule requests / changes
	• Assertiveness
	• Problem solving

Personal and Spiritual Development

Career development is important for a coordinator and will lead to increased job satisfaction over time. However, the coordinator should not forget that personal and spiritual development is just as important. Focusing all their time and effort on advancing their career while sacrificing personal development can lead to job fatigue and eventual career abandonment. Taking the time for exercise or a hobby will help the coordinator relax and rejuvenate so that they can face all the demands of work. Below are some examples of personal and spiritual development.

Personal Development:

The clerkship coordinator should have their work schedule planned months in advance so that time for personal development can occur. It is difficult to arrange trips or vacations with family and friends if the coordinator is unsure of when their presence is absolutely required at work. The coordinator must ensure that the people at work (especially the clerkship director) are aware of when they will take time off. This will help avoid situations such as the coordinator being on vacation on the day of clerkship

orientation and nothing is ready for the students as the clerkship director was not aware of the coordinator going on vacation and had not planned for it. A solution would be to make sure that the coordinator and others at work can see the coordinator's schedule for the next few months. One way this can be accomplished is by putting the coordinator's schedule in Microsoft® Outlook.

If the coordinator will be exercising or pursuing a hobby that will require them to be away a certain time each week, then they should make sure that their co-workers and the clerkship director are aware of it. Ensuring that this activity does not conflict with a task at work is essential. For example, a weekly yoga class the conflicts with the monthly orientation of the students may not be optimal. The coordinator should sit down with the clerkship director so that these issues can be discussed. The coordinator should keep in mind not to simply discard an activity due to a scheduling conflict. Working with the clerkship director can help the coordinator reach a compromise where they can continue their activity while job tasks are being done as well.

Spiritual Development:

If spirituality is important to the clerkship coordinator, then it may be essential for the coordinator to mark time on their schedule to attend their place of worship with family and / or friends. Volunteering can also provide the coordinator a social outlet while nourishing the human spirit. If the coordinator is a private individual, then blocking out 10 minutes a day to meditate or become quiet in a relaxing place may be the best sanctuary for them. The key is for the coordinator to step away from the noise and routine of everyday life and work and to allow time for them to decompress. Career advancement and job fulfillment cannot be obtained if the coordinator is not happy or at peace with themselves.

Conclusion:

Ultimately, the coordinator is responsible for their career development. They must be the manager of their time and not be managed by their time. The coordinator should consider retrograde planning with their calendar. They must be proactive and invest in themselves. When the coordinator invests in themselves, their program benefits and more importantly, so will they.

Key Points

- The clerkship coordinator should provide their career goals to the clerkship director as they will be a big supporter in the coordinator's career development
- Networking is integral to career development for a coordinator and can be done at an institutional, local, and national level
- The coordinator should evaluate their skills and determine which skills they can improve upon or add
- Personal and spiritual development is just as essential as career development for a coordinator

References:

1. Engle K, Gilbert S, Morschhauser S (editors). A Guidebook for Clerkship Administration. 2008. Chapter 9. Career Development for the Clerkship Coordinator. http://www.im.org/Publications/Staff/Documents/Guidebook.pdf

2. Emergency Medicine Association of Residency Coordinators (EMARC) http://www.em-arc.org/

Helpful Websites:
http://msa.iusm.iu.edu/wellness/

http://www.quickmba.com/mgmt/7hab/

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