A Guidebook for Clerkship Administration

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Note from the Editors

We all remember attending our first national meeting and being amazed that there were other individuals who were involved in the same arena of medical education as us. The opportunity to meet and learn from clerkship administrators—who had incredible expertise and insight into running a clerkship—was a turning point in our careers. We began to look beyond our own departments to share new initiatives and partner with other medical specialties and schools. This collaborative effort has resulted in the publication of this first-ever *Guidebook for Clerkship Administrators*.

We hope this practical, helpful guidebook will benefit new and experienced clerkship administrators to organize their programs while growing into positions of leadership. Twenty authors representing 18 unique medical schools contributed to this guide. Authors worked in partnership over the course of one year to produce this guidebook.

Medical education and clerkship administration is ever-evolving and we greatly look forward to continuing this project in the future to broaden our collaboration with clerkship administrators in other fields of medicine. We wish to thank the Clerkship Directors in Internal Medicine (CDIM) for its support and sponsorship of this project. We would also like to thank our directors, schools, and families for giving us the time and encouragement to take on this project. Lastly, we want to thank our students, who teach us every day.

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Job Description and Role of the Clerkship Administrator

Introduction

The clerkship administrator is fundamental to the success of the clinical clerkship. *The Guidebook for Clerkship Directors,* published by the Alliance for Clinical Education, identifies the role of the clerkship administrator as an essential element for the clerkship director (1, 2).

The clerkship administrators of the Clerkship Directors in Internal Medicine (CDIM) have defined a position description for the clerkship administrator. This chapter will build on this position description (**Appendix**).

Role of the Administrator

The role of the clerkship administrator is multi-faceted and requires flexibility, insight, maturity, patience, and the ability to deal with demands from a variety of sources, from student to medical school administration. The foremost role of the administrator is to assist and advise the clerkship director in managing all aspects of the clerkship. The clerkship administrator acts as student advisor, advocate, and policy expert for the clerkship. While titles, salaries, and degree of responsibilities vary across the country, clerkship administrators still have common tasks to complete.

Collaborative Approach

Managing a clerkship requires collaboration. The clerkship team may consist of the clerkship director, associate clerkship director, faculty site coordinators, administrator, and office staff. The "success" of a clerkship depends, in many ways, on the clerkship team collaborating with faculty, administrators, academic departments, and the school as well as acting dynamically, interdependently, and adaptively to achieve specific goals and objectives.

The clerkship director and clerkship administrator should build a positive, collaborative environment so that the shared educational mission of the clerkship and medical school can be achieved. Communication between the administrator and clerkship director should be open, honest, and as frequent as necessary; both must be readily available (by email, phone, or pager). The administrator should have a solid understanding of the director's vision as well as the program's goals to manage the day-to-day operations of the clerkship. The clerkship administrator is usually the first person the student will contact when an issue arises and it is important that the clerkship administrator has the support of the clerkship director, especially when dealing with sensitive student issues. The success of the clerkship also depends on building successful relationships with the other team members, including site directors. As the success of the program increases and the relationship develops into a dynamic and trusting association, the expectations and responsibilities of the administrator may change.

It takes time to build rapport; the more open the lines of communication are, the easier it will be to build these trusting relationships. There are several ways to develop these relationships. Ideally, the clerkship director and clerkship administrator should set time aside weekly to meet and discuss immediate issues in the clerkship. At times this may not be possible, therefore it is critical that the clerkship administrator contact the director for immediate concerns. The two should meet mid-year to review the goals and expectations of the clerkship and to ensure these goals are being achieved. Another meeting should occur near the end of the academic year to review the curriculum, decide if changes are necessary, outline goals, set next year's expectations, develop implementation plans, and plan faculty development, if needed.

Table 1 represents various ways the clerkship responsibilities can be managed collaboratively between the director and administrator.

What the Clerkship Director Is Looking for in a Clerkship Administrator

The clerkship administrator plays an immeasurable role in the organization and day-to-day management of the medicine clerkship, both for the students and clerkship director. Although specific responsibilities vary from site to site and from institution to institution, there are certain attributes of a clerkship administrator that are highly valued and sought after

Table 1: Examples of Responsibilities of Clerkship Director and Clerkship Administrator for Assigned Tasks.

Tasks	Clerkship Director Responsibilities (1)	Clerkship Administrator Responsibilities
Core Curriculum	• Develop a written set of education goals and objectives for the clerkship with a plan for periodic review. • Develop learning objectives and goals for faculty and residents in compliance with Liaison Committee on Medical Education (LCME) and Accreditation Council for Graduate Medical Education standards.	• Update goals and learning objectives. • Recommend curricula changes. • Be aware of LCME requirements and maintain the appropriate databases to fulfill these requirements.
Assessment of Students (Evaluation and Grading)	• Use examinations that address core goals and that are current, valid, and reliable. • Written final grades for each student, with a narrative noting goals met, strengths, and areas for continued work. • For each clerkship cycle, document students with academic difficulties and develop a clear strategy for remediation.	• Assist in the preparation of department sponsored quizzes, develop objective structured clinical examination questions, proctor National Board of Medical Examiners Subject Examination, and prepare schedule for evidence-based learning exercises. • Assist director in setting grading policies and reinforcing policies with students and administration when issues arise. • Prepare evaluation summary for each student and participate in final grade process. • Maintain grading database. • Notify students and school of medicine of final grades. • Act as liaison between the director and school.
Development of Faculty and Residents	• Be able to motivate colleagues to teach and recruit new faculty into teaching roles. • Set aside sufficient time for evaluation and feedback to teachers. • Participate in yearly departmental retreats for faculty and residents. • Visit teaching sites.	• Assist in recruiting faculty to teach. • Advise affiliated faculty and staff on clerkship policy. • Coordinate agenda, prepare materials and participate in yearly retreats. • Prepare yearly performance reports, awards and thank you notes for faculty and residents. • Visit teaching sites.
Integrate Technology	• Work with school and department to fund and develop web-based systems for teaching and management tools, such as patient encounter logs and comprehensive evaluation. • Develop curriculum for medicine clerkship website.	• Assist director in working with the school to develop online programs. • Develop and maintain department's student website and online course directory. • Research and make recommendations for new technologies, e.g., distance learning courseware. • Use software and web-based tools to manage the clerkship.

Advise/ Counsel/ Mentor Students	• Be skilled in formative evaluation and feedback for individual students; be able to advise and supervise remediation for students with academic problems. • Mentor and counseling students about career choice. • Write letters of recommendation.	• Be aware of students who appear to be experiencing difficulty (poor attitude, lack of commitment, frequent absences) and notify the clerkship director of concerns. • Have an open-door policy or office hours and be available to meet with students. • Maintain documentation on student. difficulties and advise site on procedures • Meet with and advise students who are applying to internal medicine residency programs and coordinate letters of recommendation.
Professional Growth and Development	• Allocate the resources to participate in educational innovation and research as evidenced by presentations at national meetings; published abstracts and exhibited posters at academic meetings; and peer-reviewed articles, book chapters, monographs, and books. • Serve on a relevant education or evaluation committees in his or her own medical school and in national organizations.	• Attend national meetings. • Allocate time and resources to publish abstracts, book chapters and articles. • Network with other clerkship directors and administrators across the country. • Meet with other clerkship directors and administrators at your institution on a monthly/quarterly basis. • Seek opportunities provided by institution for professional development.

by clerkship directors. Clerkship administrators must have a general knowledge of medical education, which should include understanding of training stages and the level of responsibility commensurate with those stages; the department in which they are working; and the medical school as a whole. They need to be organized and detail-oriented given their job of coordinating a student's clinical assignments, didactic schedules, evaluations, and clerkship reports. It is very important that clerkship administrators demonstrate professionalism and be hard-working, responsible, and accountable. Given their multiple assigned tasks, they must have outstanding prioritization and time-management skills. They must have outstanding "people skills" so that they can help the students as well as interact with residents and faculty. They must be attentive listeners and good communicators, which includes written communication skills. They should be able to work independently and have skills in decision-making while closely collaborating with the clerkship director. In addition, they also should be proactive problem solvers who are engaged in improving the quality of the clerkship experience for students.

Organizational Skills

Once the depth and breadth of responsibilities are understood, the administrator should organize and prioritize those duties. The clerkship administrator should be adaptive to changing circumstances. First, consider how to track each element of the clerkship.

Time management and multi-tasking skills are essential for success in the role of the clerkship administrator. The clerkship administrator must find a system that works to keep track of dates and coordinates orientations, exams, and lectures. Please see Chapter 2,"Tips for Organizing a Clerkship" for a full discussion of time management.

Multi-tasking can be quite a challenge, especially when there are numerous interruptions. It is easy to become distracted. It is useful to find an individualized system that works: some people use a daily "to do" list and cross off items as they go while others use MS Outlook®- or Palm® -based programs while still others use a paper calendar. Eventually, performing multiple tasks will become second nature.

Technical Skills

Technology use in medical education is now commonplace. The computer programs used in the clerkship will depend on the institution's preference. At a minimum, clerkship administrators must possess

excellent computer skills in basic programs for word processing, spreadsheets, and email. Familiarity with presentation software, database tools, and web design software are desirable. Such skills allow for more streamlined functioning as well as a paperless office. Clerkship administrators should be willing to learn new software programs.

Websites, personal digital assistants (PDAs), electronic medical records, scheduling software, and evaluation programs are widely used to streamline data sharing and compliance with hospital, school, and government regulations. Computer programs may be developed locally or licensed software may be purchased. Some examples of software include: New Innovations® (evaluations/scheduling), MyEvaluations® (evaluations), AmIOn® (scheduling), or BlackBoard® (E-Education). We recommend that clerkship administrators network with colleagues to research new technologies for evaluation and data management including programs to track student encounters with patients (patient logs), online case scenarios, and portfolios. Pressure to increase medical school class size coupled with fewer faculty available to teach will require more reliance on distance learning course software, technical support for web-based instruction, and up-to-date grade reporting and management systems. The administrator should work with the clerkship director, department chair, and medical school administration to recommend innovations and funding for these initiatives.

Behavioral / Interpersonal Skills

To be successful, the clerkship administrator must be self-directed and able to work independently. Often there is only one student clerkship administrator in each department. This type of work requires one to think and act quickly to deal with a multitude of situations, many of which occur simultaneously.

To ultimately find job success and satisfaction, it is important to network with the other clerkship administrators within the institution. Clerkship administrators often feel isolated and alone. By networking with other administrators, it becomes possible to share resources and solutions to common problems while building mentoring relationships. The position of clerkship administrator may seem overwhelming to a new employee. Possible questions that may arise are:

- How am I going to remember to do all the tasks required of me?
- How should I organize my files?
- What goals should I set for myself each week and for each teaching block?
- What systems should I use to remember to send out evaluations?
- How should I prioritize my tasks?

One recommended solution is to contact a departmental clerkship administrator and arrange to shadow. Most administrators will be very receptive to visits and questions. Every clerkship administrator will provide pearls of wisdom that can be incorporated into the clerkship. Monthly clerkship administrator lunch meetings are a great way to get together and network. The medical school's academic programs office may even coordinate these lunches with the clerkships or offer training sessions. Additionally, serving on university committees provides for a useful exchange of information and ideas. It is also possible to network on a national scale at meetings. It is always informative to learn how other institutions across the country operate. Even though a clerkship administrator may be new to the position, there are always opportunities to volunteer on various national committees, which are great learning experiences.

Possessing a degree of assertiveness is essential to maintain a degree of calm on a daily basis. This assertiveness covers many areas, from setting boundaries with students, housestaff, and program directors to being proactive in terms of problem solving and time management.

One way to set boundaries with the students is to have predetermined "office hours" when the clerkship administrator will assist students. This scheduling allows the clerkship administrator to have concentrated time during the day to focus on other duties, such as evaluation collection and preparation of orientation materials. During these time periods, coworkers can take messages and try to field questions. This scenario is for only one clerkship administrator with no other undergraduate support personnel. Multiple staff on the undergraduate side can distribute duties evenly on a routine basis. Flexibility and good judgment must be employed to help a student with extenuating circumstances.

The importance of well-developed interpersonal skills cannot be stressed enough. As a clerkship administrator, patience will often be put to the test. One coping strategy is to try and empathize with the students. They may be younger, far from their families and comfort zones, and dealing with the stress, high expectations, and expense of medical school. On top of these challenges, they are trying to navigate the maze of departments, scheduling, drop/adds to their rotation schedules, rules and regulations, significant patient care responsibility, and worry over evaluations, grades, and exams.

Empathizing with a student, does not, however, excuse inappropriate behavior. Clerkship administrators deserve to be treated with respect. Understanding the context of being a medical student can help put student behavior in perspective but it does not give a student (or anyone else) the right to treat the administrator with anything other than respect. In fact, the clerkship director should be informed of any student who has treated the administrator poorly. It is key to maintain a professional demeanor, and keep emotions in check—distressed students respond more positively to a calm, soft-spoken manner. Clerkship administrators serve as advocates for the students and representatives of the department and medical school. The clerkship administrator is the one to set the tone. The skills mentioned also carry over to dealing with other departments and personnel at various levels of the organization. There will be times of frustration but keep in mind that communicating calmly and with a professional demeanor will help to be taken seriously and could effect positive change in the organization.

Often, in large organizations training and development programs are available within the human resources department. These programs offer free seminars for employees on a variety of topics, such as dealing with difficult people, conflict resolution, time management, how to organize the work area, and negotiation skills. As a clerkship administrator, it would be a good strategy to take advantage of as many of these types of offerings as possible. They will not only make work lives easier, but will help in career development.

Conclusion

Do not lose sight of the fact that the clerkship administrator is a valued, unique, and key figure in the department. The clerkship administrator has a huge impact upon how the department is viewed by the students. Remember that the junior student rotating this teaching block may be a future intern or resident in a program at that institution. The relationships formed with the students can be long lasting, so make them worthwhile.

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Appendix: Position Description for the Clerkship Administrator

Introduction
A professional and productive clerkship administrator should play a major role in the day-to-day administration of a successful medicine clerkship. As Louis N. Pangaro, MD, suggests:

The clerkship director must have:

> 1) An assistant to be a "first contact" liaison with students. This assistant should be approachable and sensitive to a student's distress.
> 2) Secretarial/clerkship support for the administration of the clerkship appropriate for the number of students, the number of clerkship sites, and the number of grades and reports to be produced. (1)

The administrator should report directly to the clerkship director and be highly knowledgeable about the student program.

The CDIM Administrators Advisory Committee prepared the following position description as a standard for clerkship administrators. The spectrum of responsibilities outlined illustrates the diversity of this position; it cannot be a complete description of the position. The delegation of specific curricular assignments varies widely among schools as well as among departments of internal medicine. However, clerkship directors should expect and require a capable clerkship administrator as a necessity for a successful medicine clerkship.

Qualifications for the Clerkship Administrator
- Undergraduate degree or equivalent experience.
- At least three years of administrative experience with continually increasing management responsibility.

Essential Skills
The clerkship administrator must be knowledgeable about the medicine clerkship and other student programs offered by the department of internal medicine; they must demonstrate the following skills:
- Well-developed interpersonal skills, including the ability to deal effectively with all levels of personnel, both within and beyond the university.
- Excellent written communication skills.
- Time management and organizational skills; must demonstrate the ability to prioritize and accurately complete tasks independently.
- Proficient in basic bookkeeping, record maintenance, and report development.
- Excellent technical skills (computers and other office machines).
- Excellent problem-solving and decision-making skills.
- Conflict resolution and negotiating skills.
- Professionalism, discretion, and confidentiality.
- Basic understanding of medical and adult education.

Primary Responsibilities
Responsibilities of the clerkship administrator should include, but are not limited to:
- Function as the first-contact liaison to students, faculty, residents, community faculty, sites, and school administration for any issues or questions relating to the clerkship.
- Provide primary support for the clerkship director in matters relating to the clerkship, and function as his/her representative if requested.
- Manage daily operations of the student office and the clerkship, organize and prioritize necessary tasks, initiate changes and resolve issues as they arise.

- Understand thoroughly the curricular goals, policies, and standards of the medicine clerkship, department, and medical school.
- Participate in the grading process and prepare final grades for submission.
- Recruit faculty for clerkship teaching and ensure retention.
- Monitor the student evaluation process and maintain complete and accurate student files.
- Prepare data analysis reports.
- Understand the major responsibilities of other interacting departments (i.e., student affairs, medical education, registrar, area health education center, bursar, or purchasing).
- Know the medical school calendar and courses offered.
- Participate in institutional, departmental, community, or national meetings as ongoing professional development and to remain informed about current academic trends.
- Assist in development of annual reports.

Secondary Responsibilities

Responsibilities may also include:

- Prepare department letters of recommendation.
- Oversee or support the internal medicine interest group.
- Maintain the student library in the department of internal medicine.
- Prepare clerkship materials.
- Participate in or conduct the clerkship orientation.
- Administer NBME or other required examinations.
- Participate in the preparation of LCME accreditation materials.
- Plan and attend faculty retreats, faculty development sessions, and other meetings and functions.
- Supervise staff members completing work for the medicine clerkship.
- Provide administrative support for other pre-clinical and clinical courses.
- Understand institutional policies and procedures.
- Assist in manuscript development and grant application.
- Schedule and coordinate meetings and conference calls.

Summary

The CDIM Administrators Advisory Committee recommends clerkship directors use this position description to strengthen support for existing clerkship administrators or to aid in establishing such positions in their program. An effective and productive clerkship director must have a competent administrator to facilitate a successful medicine clerkship.

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Tips for Organizing a Clerkship

Organizing a clerkship is challenging to the experienced administrator and can be overwhelming for anyone new to the process. This chapter provides strategies that have helped experienced administrators break the job down into separate, manageable tasks.

Understand the Structure of the Clerkship

An important place to begin is to understand the chain of command. How do other people contribute to the components of the clerkship? Effective administrators understand their role along with the roles of every other person involved in the clerkship. These relationships may include:

- Clerkship Director > Site Director
- Clerkship Administrator (CA) > Site Coordinator > Office/Unit Staff
- Attending Physicians > Residents > Interns
- School Administration (Registrar, Student Services/Affairs, Dean's Office, library staff, information technology, security/access, etc.)

Once those involved are established, work to understand who is responsible for the following:

- Assigning the students to each site (i.e., community sites, hospital sites)
- Assigning students to each specific rotation
- Coordinating student schedules within each site for each rotation
- Evaluation and grading
- Communication with students regarding the various aspects of their clerkship experience
- Credentialing of sites
- Electives

Time/Organization Management

Learning to manage time is an ongoing process. Networking with clerkship administrators across specialties and through national organizations helps develop new strategies. Effective time management strategy is based on personal traits and tendencies. One key point to remember is to be flexible in planning. Allow for the unexpected and plan with the end in mind. The only sure thing in a schedule is that the unexpected will happen. Three essential steps to efficient time management are organization, prioritizing, and scheduling.

Organization

Plan weekly and act daily. Each week, identify the few key tasks that must be accomplished to make progress toward goals. Ask the following questions during list preparation: "What are the few key objectives I have to accomplish this week to advance my goals?" and "What key tasks must I complete to accomplish these objectives?" Task lists in MS Outlook® calendar can assist in list preparation. (One helpful tip: it is possible to drag an email to the Outlook task list.)

Prioritizing

The next step is to list tasks and objectives in order of priority with the intention of working on higher priority tasks first. Try not to overestimate capabilities, and do not leave big projects for the last second. It will happen, but try to keep the last-minute scramble to a minimum.

Scheduling

On a weekly basis, review the schedule while keeping in mind the prioritized task list. Do not get overly ambitious—there is no need to plan out every minute of the day. Devise a reasonable schedule that is possible to follow.

Effective planning is a skill that takes time to acquire and polish. The process of time management does not end with the creation of some lists. Planning and monitoring can seem time consuming, however are necessary to use time more effectively. The trial-and-error approach is an essential part of the process.

A time plan is most successful when it is not written in stone; cultivate the sensitivity to recognize productivity. Learn to recognize when putting off a task and doing something else is an intelligent, conscious decision and when it is merely procrastination. Sometimes, walking away from a project for a few minutes can be the best thing to bring a new perspective to a problem. Expecting the unexpected and building flexibility into the time plan makes achieving goals more realistic.

Organizational Tools – Where To Begin

Clerkship Calendars

The first priority for organizing a clerkship is to develop an annual calendar. Starting with a general calendar with dates and activities that affect all sites and students will provide important general information to anyone involved in the clerkship and aid with overall organization. **Appendix 1** is an example of a simple general schedule. The general calendar incorporates schedules from the institution, school, department, and program into one single document. The structure of the year's activities will be based on the school's clerkship schedule and then segmented into rotations during the clerkship period. Whether the clerkship is four, six, eight, or 12 weeks in length, the repetition of rotations in the academic year allows a relatively rigid time frame for each element of the clerkship. Variations in the schedule can occur due to national and local holiday dates and regional teaching site availability. These variations are easier to accommodate when planned for through the use of a general calendar.

The period of planning and developing the calendar for the upcoming year is also a good time for the clerkship director and clerkship administrator to establish priorities for the new series of rotations. Considering these issues while developing the general calendar encourages the administrator and director to look at how and when expectations and requirements will be communicated with the students and site coordinators. Implementing changes before the new academic year begins and maintaining them throughout the entire year will provide a consistent experience for all students.

From the general clerkship calendar, a site calendar can be developed with specific events. See **Appendix 2** for site calendar inclusion ideas. Staffing and vacation schedules can be considered after the general and site-specific calendars are created.

Once the clerkship calendars are finalized for each rotation, creating the didactic and other scheduled activities allows the administrator to schedule speakers, equipment, rooms, and any special staff requirements. The clerkship calendars also allow one to create checklists to use as reminders of tasks that need to be completed (see **Appendix 3)**.

Electronic Aids

The extensive degree of planning and communication required to provide a successful clerkship to an entire class of students in multiple settings is often extensively supported by the use of electronic communication.

Email is almost essential and, fortunately, almost universally available. Medical students are often easily reached and quick to respond. Email also provides documentation of student communications. Be sure to understand the Family Educational Rights and Privacy Act (FERPA) rules regulating privacy of email communication and students who have opted to not publish personal information in the medical student directory (**Appendix 4**). To manage email, use a program such as MS Outlook® to track conversations in color, flag messages requiring action, and create folders to manage email messages. Creating template email messages for recurring reminders to students, meeting notices, and orientation instructions saves time and maintains consistency in the information presented. Electronic calendars can streamline the creation of a master calendar. Functions such as recurring tasks and meeting reminders can help one stay on track. In some cases, the calendar from the previous year can be copied to the next. Many administrators use a desk calendar, either primarily or in conjunction with an electronic calendar.

Networking computers or the use of a shared drive aids in consistency and accuracy by allowing the administrator and director—as well as others involved in the clerkship—to work from a single document. Working from a server makes it possible to access documents off site and to back up files, which can be invaluable when coordinating a busy office.

A clerkship website saves time in communicating curricula and department policies and can be used to collect accreditation requirement information, such as clinical examination (CEX) or patient logs. A website must be well-maintained and all information must be updated regularly throughout the year. Be sure that the information on the website is consistent with the plan for the next/current year rather than the previous year.

Course management software such as BlackBoard® and ANGEL® link on-campus and distance learning. Course management software could include calendars, instructor chat, course content, course discussion tools, email, grades, class list information, quizzes, and personal homepages.

Additionally, electronic scheduling and evaluation programs are helpful and can enhance the accuracy, efficiency, and effectiveness of the assignment and evaluation process.

The Student List

The clerkship year begins when the master list of students for the following academic year is received. Ideally, a complete – although likely tentative – list for the upcoming year would be available at least two months before the first day of the first clerkship. The ensuing two months can be the most important period in the clerkship year. If the master student list does not incorporate all of the pertinent information needed for each student— email address, pager number, mailing address, site—compiling this information into one document will facilitate the smooth flow of activities throughout the year. Incorporated into a spreadsheet or database, this information can be used for labeling student files, mailing grades, creating email and pager lists to forward to clerkship sites, and a variety of other activities. If electronic student photos are accessible, this may be a good time to sort them according to clerkship and rotation so they can easily be distributed as needed.

Site Administration

Updating Site Information

Contact teaching sites prior to the start of the academic year to see if there are changes in enrollment numbers, physician or administrative staff contacts, credentialing, or reporting locations. Requesting updates from the site clerkship administrator will enhance communication throughout the year and increase the likelihood of being informed of changes prior to their implementation. Communication with the site is always better than providing students with outdated information and dealing with the resulting confusion. When requesting this information, include a copy of the general calendar with the rotation dates and expectations for site administrators.

While some faculty site coordinators prefer to receive all information personally and distribute to the site staff as required, others choose to have all information sent to the site administrator who will coordinate activity within the site. Providing all required information to the correct person will allow a smooth transfer of students from site to site with appropriate documentation, credentialing, training, privileges, and housing.

Scheduling the Students

After the calendar is complete, master student list received, and the site information updated, provisionally assigning students to rotation sites for the year or upcoming rotation block can begin. For jigsaw puzzle fans, coordinating a complex arrangement of rotations incorporating both inpatient and outpatient experiences in a combination of four-, six-, eight-, and 12-week rotations may be a favorite part of the planning process. Time permitting, it is helpful to consider scheduling students for the entire year as it helps answer questions from students, faculty, and deans regarding site availability and possible student additions to the clerkship.

Communicating with Sites

Once assignments are made, the clerkship administrator can distribute information to the sites. Teaching sites may request student registration information at the beginning of the academic year to coordinate physician coverage, housing, student credentialing, and site-specific training. Make sure to inform sites of schedule changes and confirm student assignments as the start date gets closer.

When distributing information to each site, include the student name, contact information, and rotation dates. Although requests for contact information may be received from sites throughout the year, providing the information at the beginning of the year will reduce the number of special requests, and therefore the number of distractions, during the busiest times.

Communicating with Students

The next step may be the most challenging and most essential element in organizing the clerkship: communicating clerkship requirements, policies, and procedures to the students. Although some elements of the clerkship may change from year to year, the basic structure remains pretty much the

same and becomes second nature for the clerkship administrator and others closely involved. While some personnel will be new each year, most individuals will have completed the clerkship cycle many times over the years and can often predict what will happen throughout the upcoming year. However, for the students, it is a new experience. Even students in the final clerkship of their third year will have only minimal knowledge of how the department's clerkship is organized. Just as great variety exists between institutions in organizing the clerkship, there is variety among the departments within an institution in activities and procedures. Completing a clerkship in another department provides the students with a degree of sophistication about the clerkship experience, but it does not provide them with any information about how each specific clerkship is organized.

Communication During the Clerkship

Communication opportunities can be enhanced by a scheduled orientation for all students on the first day of the clerkship or during the first week of the clerkship. Important topics to be covered by the clerkship director or clerkship administrator at this orientation are expectations, activities, responsibilities, feedback, evaluations, exams, assignments, communications, and grading. A printed or electronic resource to which the students can refer easily should be distributed to supplement the oral instructions. It also protects the clerkship and department from claims that students were not aware of requirements. Build in time for students to ask questions and discuss issues of concern. Students should be encouraged to contact the clerkship administrator or director with questions at any time throughout the clerkship.

Contacting the students throughout the clerkship to remind them of requirements (e.g., mini-CEX and patient logs they have not completed as well as lecture and schedule changes) will aid the students in being successful in the clerkship.

Feedback and Evaluations

Throughout the clerkship, faculty and residents should provide oral feedback as well as complete written evaluations on the students. It is the clerkship administrator's responsibility to collect and track all written or online evaluations. It is important that evaluations are monitored in a timely manner for the clerkship director to provide feedback to the students at mid- and end-of-clerkship feedback sessions. Evaluations are also important for completion of the grading process.

Any individuals working with students need to be aware that in addition to frequent feedback and timely evaluations of the student, they are responsible for immediately informing the clerkship director/site coordinator or administrator of any special issues or concerns regarding a student's conduct or performance.

Final Examination

The end-of-clerkship exam is typically scheduled in the last week of the clerkship, often on the last day. It is important that a location for administration of the exam is secured well in advance (if it is the clerkship administrator's responsibility.)

The most important elements in clerkship administration are organization and communication. With effective preparation and a reliable means of communication, one can accomplish anything.

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Appendix 1: General Schedule Example (Can also be done in calendar format)

General Clerkship Schedule 2008-2009

SUMMER II, 7/7-8/29/08

7/7	**Orientation**
7/11	Student Education Day
8/1	Access to Care Modules due
8/1	E*Value: Schedule Mid-Clerkship Evaluations for this date
8/4	Performance Base Assessments
8/18-28	Ambulatory
8/22	All E*Value evaluations must be scheduled by this date
8/29	Log Requirements must be met by 5:00pm
8/29	**Final Exam**
9/2	Evaluations by students due by 5:00pm
10/3	All Evals should be Reviewed & Released by this date
10/17	**Grade Memos Due**

FALL I, 9/2-10/24/08

9/2 (Tues)	**Orientation**
9/12	Student Education Day
9/26	Access to Care Modules due
9/26	E*Value: Schedule Mid-Clerkship Evaluations for this date
10/1	Performance Based Assessments
10/3	Hunt Lecture (3:00-5:00) – All students – allow travel time
10/13-23	Ambulatory
10/17	All E*Value evaluations must be scheduled by this date
10/24	Log Requirements must be met by 5:00pm
10/24	**Final Exam**
10/27	Evaluations by students due by 5:00pm
11/28	All Evals should be Reviewed & Released by this date
12/12	**Grade Memos Due**

FALL II 10/27-12/19/08

10/27	**Orientation**
11/7	Student Education Day
11/19	Access to Care Modules due *(holiday week)*
11/19	E*Value: Schedule Mid-Clerkship Evaluations for this date
11/20-21	*Thanksgiving, University Holiday - Students Off*
11/26	Performance Based Assessments
12/8-18	Ambulatory
12/12	All E*Value evaluations must be scheduled by this date
12/19	Log Requirements must be met by 5:00pm
12/19	**Final Exam**
12/21	Evaluations by students due by 5:00pm *(shortened by 1 day due to holiday and students time off)*
1/23/09	All Evals should be Reviewed & Released by this date.
2/13/09	**Grade Memos Due**

Appendix 2: Site Specific Calendar Ideas

Clerkship start dates
Site assignment due date
Due date for website update
Due date to email/mail students clerkship orientation information
Due date to email/mail students credentialing paperwork for clinics and hospitals
Orientation date
Site switch dates
Due date for completion of didactic schedule
Due dates for various reminder emails to students: tracking patient logs, mini-clinical examination
OSCE dates
Exam date (include due date for ordering exams and rooms)
Evaluation due dates
Grade meeting schedule
Graduation date

Appendix 3: Sample Checklists

Sample Checklist – Beginning an Academic Year to End of a Rotation

- Get student data (i.e., email address, pager number, home address, photos)
- Expound on the general calendar (if you received one from elsewhere) or create your own.
- Create rotation specific calendars and prepare schedules *which may include*:
    - Lectures/didactics - arrange preceptors and rooms
        - Distribute to preceptors before rotation begins
    - OSCE , mini-CEX, PBA – arrange preceptors and rooms
    - Call schedules
    - Mid-clerkship evaluations
    - Hospital assignment/preceptor schedules
    - Ambulatory (out-patient) assignment schedule
    - Evaluation assignments – do you know who the student worked with?
- Know the syllabus/handbook and clerkship requirements.
    - As first contact for the clerkship, you must be familiar with all requirements, from attendance to graded activities.
- Clerkship materials
    - Print and/or up-load into clerkship websites (if applicable and not done by someone else).
        - Make sure appropriate students have access to any web-based systems and if necessary, deactivate any students from the previous year who should no longer have access.
    - Prepare orientation packets or course packs (which usually include many of the clerkship materials). This can be done for the year or before each rotation begins.
    - Communicate orientation information to students
    - If necessary, print grading sheets for graded activities and have available for graders
- Create student folders or portfolios if used at your location
- Create a tracking system to track graded student activities and miscellaneous assignments (electronically often works best)
- Order exams that are not in-house as appropriate
- Use a system to remind yourself of activities, due dates, etc. (Outlook calendars/tasks work very well)

During the clerkship:

- Attend orientation if possible (at some sites the clerkship administrator may conduct orientation).
- Communicate with the clerkship director so you are on the same page
- Keep in contact with the students – let them know you are accessible and willing to answer questions.
    - Adult learners still need reminders of due dates and scheduled activities.
- Schedule activities that cannot be done in advance.
- Coordinate and participate in various learning events during the clerkship.
- Track scheduled activities and requirements (i.e., Logbooks, H&Ps, assignments, etc.) Mechanisms to do this electronically may be built into evaluation systems, logbook systems, or other programs.
- Schedule or send evaluations and track online/collect
- Proctor exams
- Schedule time off as the clerkship schedule allows or arrange coverage for exam proctoring, etc., by a qualified individual. This is tough, but necessary!

After the clerkship:

- Organize student grade data into an electronic system, student folder or portfolio (whatever means is used at your campus) so a final grade can be assigned.
- Finalize grade and correspondence (widely variable on how this is done).
- Attend grade meeting, if applicable
- Mail information to students, if applicable, or submit to the appropriate personnel at your school/ institution.

Ambulatory Scheduling Checklist

- Non-Employee Enrollment (Computer Access/Security)
  - Fill out computer access form
  - Send notice to police and security
  - Request LMR Access
- Orientation
  - Text Books
  - Pagers
  - Log-on Information
  - Hand outs
  - Confirm director
  - Distribute Schedules
- Schedules
  - Collect preferences from students
  - Collect availability of clinics from the following faculty
    - Ambulatory Preceptors
    - Eye & Ear Clinic
    - Medical Walk-In Clinic (or Urgent Care Clinic)
    - Diabetes Clinic
    - Dermatology Clinic
    - Heme/Onc. Clinic
    - Cardiology Clinic
  - Compose schedules
- Didactic Sessions (schedule faculty)
  - Eye & Ear
  - Dermatology
  - Ambulatory Cases
  - EKG/Cardiology

Appendix 4: Family Educational Rights and Privacy Act (FERPA)

Family Policy Compliance Office (FPCO) Home

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

> Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.
>
> Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.
>
> Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):
>
> > School officials with legitimate educational interest;
> > Other schools to which a student is transferring;
> > Specified officials for audit or evaluation purposes;
> > Appropriate parties in connection with financial aid to a student;
> > Organizations conducting certain studies for or on behalf of the school;
> > Accrediting organizations;
> > To comply with a judicial order or lawfully issued subpoena;
> > Appropriate officials in cases of health and safety emergencies; and
> > State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

For additional information or technical assistance, you may call (202) 260-3887 (voice). Individuals who use TDD may call the Federal Information Relay Service at 1-800-877-8339.

Clerkship Orientation

Orientation is the key component in setting the foundation for a successful clerkship. For it is at orientation where expectations, team roles, and the organization of the clerkship are clarified to the student for the first time.

Timing

It is recommended that orientation be held on the first day of the teaching block. For many students, even seasoned students, the first day of a rotation is very overwhelming. If possible, hold one orientation on the first day with all students present, regardless of a student's assignment, to ensure that everyone has the same exposure to the goals and expectations of the clerkship in the same setting. Students need to understand that orientation is a required meeting. After orientation, students should be released to report directly to their site.

For clerkships with multiple sites spread across a wide geographic area, it may not be possible to bring all students together on one day. One alternative is having students spend day one with staff, chief residents, or attending to review their clerkship handbook and schedule; meet key teaching staff; and tour the facility. Providing orientation to the teaching site and schedule on day one, combined with a group later in the first week, may be another alternative. Whichever method used, it is important that sites place a strong emphasis on orienting each student to ensure that they completely understand and are fully aware of the requirements to satisfactorily complete the clerkship as well as how to be successful by being prepared, assuming responsibility, and asking for feedback.

Prior to the Clerkship

The balance between providing essential information and overloading the students can be tricky. Identify with the clerkship director what information should be covered during orientation and what information should be given to the students prior to orientation via email, website, or paper. Assess the tools that are available to the clerkship to communicate orientation materials. Once communication methods are determined, be consistent in distributing this information. Even if all materials are available electronically, consider printing paper copies of essential documents (assignments, call schedules, etc.) to give to students in a packet on orientation morning. While some students will have already printed these out in advance, those individuals who have not will be less prepared and possibly less able to benefit from the orientation.

Prior to day one, students will need to know where and when to report, what to bring on the first day, lecture and call schedule, and how to gain security access for patient files and hospital admittance. The key to getting students prepared for the first day is thinking about each aspect far enough ahead of time to account for all steps required. For example, Social Security numbers may be required to add students to an employee database so that they can participate in medical record training on the first day of the rotation. The administrator must contact students weeks in advance of the first day to account for delays in student responses and processing time. A sample timeline is included in **Appendix 1**.

Credentialing for students can vary from program to program or site to site. Paperwork required prior to a student's start date may include:

- Criminal background checks
- Health Insurance Portability and Accountability Act (HIPAA) training
- Electronic medical record logins and confidentiality statements
- Medical record training
- Immunization status
- Fingerprinting
- Social Security number and date of birth—be knowledgeable of privacy laws when asking for and relating sensitive information (See **Appendix 4** in Chapter 2, "Tips for Organizing the Clerkship")
- Letter of good standing
- Parking
- Meal cards
- Call schedules
- Pagers
- Hospital identification badges
- Authorization for call room access/keys

It helps to consolidate communication. Students may be on other clerkships, taking boards, returning from away rotations—all over the place. Try to write a single introductory email to students containing all of the things required of them so their efforts can be consolidated. Asking for multiple items in one email is better than messages appearing many times in a student's inbox and being ignored.

Requiring students to take responsibility for paperwork and deadlines is important preparation for residency and the administrative responsibilities they will have as a physician. However, the student who ignores all emails and requests for paperwork ultimately becomes the administrator's problem when they are unable to start on day one and the administrator must call in favors to process paperwork quickly. The student who did not fill out paperwork for one clerkship will most likely not fill out paperwork for the next clerkship. Organizational skills are crucial for medical students and they should receive feedback in this area. Copying the clerkship director, registrar, or dean for student affairs on email requests may add weight to an email request.

Orientation Day

On orientation day, present information to students in order of importance. A list of all items to be covered at orientation is recommended. See **Appendix 2** for a sample check list. It may be helpful if the information is divided into segments:

- Contact information
- Learning objectives
- Student responsibilities
- Work schedule and on-call expectations
- Attending/resident responsibilities
- Proper communication with different levels of housestaff and hospital personnel
- Asking for feedback
- Clerkship requirements, e g., patient logs, mini-clinical evaluation exercise, portfolios, online teaching tools
- What to expect in a typical day during the rotation and how to be successful, e.g., pre-rounding, writing patient orders, consulting with other departments and physicians, following up on lab tests, using the electronic patient records system to access patient information, conferences, didactics
- Required lectures
- Evaluation process and objective structured clinical examinations
- Exam
- Parking and meals
- Computer access
- Identification badges
- Paperwork required for affiliated teaching sites
- Course materials and expectations regarding them, i.e., whether course books are expected to be handed in at the end of the rotation or if the student may keep them
- Course policies such as days off, dress code, holidays, sick time, dating residents/attendings

Days Off

Make clear at orientation the policy for days off and what process students can go through (if any) to change their team assignments. It is helpful to publish a holiday schedule for the teaching block and specify who the student should contact if there is a personal or medical emergency during the clerkship.

Communication with Students

The preparation for orientation day sets the tone for communication throughout the clerkship so be transparent, concise, and consistent. Letting students know where they can find answers to general clerkship questions is important. It is helpful to the clerkship administrator as well as to the student if answers to common questions can be found outside of the orientation room, on a course website, or in an orientation packet. One style of communication with students should be established for changes that occur during the clerkship. This style could include email, pagers, or a course website. When making changes to a course website, it is important to remember that if there are not frequent changes, students might not bother checking in. When changes are made to documents that are mostly static, it is best to send the group an email containing a link to the site.

In communication clearly indicate what action, if any, is expected of the student and how best to reach the clerkship administrator with questions. Clerkship information presented to the students in a prepared and organized manner is a key component

to providing basic tools to successfully complete the clerkship. An organized and well-prepared orientation also gives the students the ability to focus on their learning experience.

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Appendix 1: Preparing for Orientation Day

Twelve months ahead of time or as soon as possible
- Schedule rooms
- Set up orientation dates on your master calendar and schedule orientation on clerkship director's calendar
- Begin making conference schedule

Six weeks ahead of time
- Email links to required paperwork

Three weeks ahead of time
- Check registration for clerkship against registrar's rosters
- Finalize conference schedule

Two weeks ahead of time
Email students anything that needs a reply, for example:
- Inquire about students' rotation preferences (this may be done a year ahead at some schools)
- Social Security numbers
- Create rotation schedules (again, this may be done a year ahead at some schools)

One week before orientation
- Email students regarding orientation: where, when
- Provide directions for the first day, i.e., "Some of you will be on call, come prepared to begin"

One day before
- Print out any orientation materials:
  - Agenda
  - Call schedules
  - Educational Materials

Appendix 2: General Orientation Checklist for M3 Clerkship Students

(Can be adapted for MSI, Elective and Ambulatory Care Rotations as needed)

____ Team list and who to page
____ Team Schedule
____ Lecture Schedule
____ Locker number and combination (some sites require students to supply locks)
____ Pagers
____ Instructions on how to enter your name for your pager
____ Pager List
____ ID Badge Form (this may be in addition to school ID)
____ Computer Access Information
____ Instructions for parking, call rooms, and meal tickets
____ Fitness Center Information
____ Library Information
____ Incident Policy
____ Employee Health Center Information
____ Evaluation Procedures (i.e., online, paper, mini-CEX)
____ Check-out Form and Policy
____ Time-off Policy
____ Concerns–what not to do while rotating at site
____ Names of key contact personnel at remote hospital sites

Student Advocacy and Support

The relationship between the clerkship administrator and student is a partnership. The administrator is there to advise and support the students as they navigate their way through their clerkship experiences. In turn, the students teach administrators by questioning existing methodologies and re-energizing the education process. Therefore, a strong administrator-student relationship is beneficial to both the administrator and the student.

The administrator is in a unique position to support and advise the student as he or she knows the ins and outs of the clerkship and yet does not formally evaluate the student's clinical performance. The clerkship administrator has a wealth of knowledge which builds with each clerkship administered and with every year devoted to advising, problem solving, and listening to student stories. Many clerkship administrators know the strengths and weaknesses of sites and preceptors. The clerkship administrator's knowledge should be shared with students in a positive way to help them fulfill their goals for the clerkship. The administrator can be a safe sounding board for issues students may not want to share with evaluating preceptors.

This chapter introduces strategies to build trust with students and ways to be a useful advisor. The chapter will also cover how to approach students about professionalism issues, handle students with cognitive difficulties, offer feedback, and fulfill documentation requirements.

Administrator as Student Advocate

In this world of email correspondence and regulations, the work of the administrator is done at the computer. The administrator is bogged down with problems and deadlines and may not see students face-to-face as often as might be preferred. With decentralized campuses, large class sizes, and dependence on electronic methods of communication, administrators have to make special efforts to get to know the students, build partnerships, and advocate for students' needs. Reminders of the importance of the administrator's role are essential to keeping perspective on what is really important. For example, a disorganized student can feel like a burden, but an administrator needs to take the time to help the students learn better organizational skills. Working as a team with attendings, residents, and health care staff to train and educate students is one of the most fulfilling parts of the job (1).

Some tips on getting to know students and building trust:

Be Available

Have an open door policy and let students know they are welcome. When discussing sensitive topics, such as grade disputes or last minute requests to change clerkship sites or teams, personal interaction is better than email. Establishing a connection to the students and their problems will make an administrator a better advocate.

Build Rapport

Students will ask for advice when they know the clerkship administrator is knowledgeable and willing to help. Engaging in conversation with the students when opportunities arise will help build relationships with the students. Ask open-ended questions like "tell me about your clinic" or "would you recommend the site to a fellow student?" Learning about the clerkship from the student's perspective creates open communication and allows him or her to feel as though thoughts and concerns are being heard. Learn students' names and recognize them in the hallway.

Visit Clinical Sites

Visiting the teaching sites enables interaction with physicians, students, and staff. Such visits provide first-hand data about the daily schedule facilities such as call rooms and housing, and provides the chance to offer advice to students who will potentially rotate at that site.

Be a Sounding Board

Often times, students come to the clerkship administrator with concerns or complaints about team members, grades, or site placement. While such complaints can cause defensiveness, any and all help should be provided to alleviate the problem. If a change is reasonable and feasible but means extra work, the goodwill generated will be worth the time.

If the request cannot be accommodated, the reasons should be communicated in a straightforward manner. Often, just validating a student's concerns by listening is reassuring to the individual.

Administrator as Student Advisor

Advising students, faculty, and staff on issues pertaining to the clerkship is an important duty of the clerkship administrator. Students in particular will ask for information about site placement, clerkship logistics, their role on the team, and career planning.

Resources

The clerkship administrator should be the go-to person for questions about the clerkship. They may not always know the answers but they have the resources. Cultivating relationships with colleagues in other departments and in the medical education offices will provide a broader understanding of the medical education process in general and of the local culture of the institution.

References

Develop a library of information and reference material for students. When appropriate, provide students with clinical site information. Provide them with a description of the site or offer to put the student in touch with someone who has agreed to be a resource and has previously rotated through the clerkship at that site.

Refuting the Student Grapevine

Dispel myths heard through the student grapevine. Such information can often be based on questionable data. For instance, an administrator may catch wind of rumors circulating about bad experiences at a certain cite. Focus on the positive attributes that a particular site offers, but be transparent. If there are genuine issues about a site, the administrator may be the first to hear it. Reiterate that student feedback is important and taken seriously.

Administrator as Student Counselor

Students who are struggling during the clerkship because of stress, family situations, a medical issue, or knowledge deficits should be identified early and offered support. Students may or may not come to the clerkship administration asking for help (2). It is most common for the teachers and affiliated staff to identify students in crisis. The administrator's role is to bring such issues to the clerkship director's attention and provide advice to residents and faculty on procedures for struggling students. At all times, maintain and facilitate communication and documentation with the dean's office regarding the at-risk student. The administrator must be knowledgeable about school policies, such as extended time off, accommodations for learners, and counseling resources at the school and university levels. If a student comes to the administrator in confidence about an isolated incident, use proper judgment whether to bring this issue to the attention of the director. Reassure the student and offer to schedule time with the clerkship director to develop a study plan. On the other hand, if a student has comments on an evaluation that express concerns about the student's professionalism or clinical skills and the student demonstrates behavior suggestive of anxiety, an urgent conversation with the clerkship director is warranted. If uncertainty exists about a particular issue, talk to the clerkship director. It is important to address these issues while the student is on the clerkship, not after, so that interventions to help can be made during the clerkship.

Handling Students with Professionalism Issues

Students are required to adhere to the same professional standards of conduct as licensed physicians. These standards include honesty, trustworthiness, empathy, respect, responsibility, punctuality, and confidentiality. The school's curriculum should teach and enhance the student's development in the area of professionalism (3). Any departure from these standards can result in disciplinary action.

Most medical schools have formal written policies in regards to dress code, time off, and the consequences of unprofessional behavior.

Dress Code

Dress code is dependent upon the school, site, and clerkship. Most schools and sites require professional dress unless scrubs are warranted. For male students, it means long pants, dress shirt, and in most cases, a tie. For the female students, it means a skirt or dress pants and a sweater or jacket. Open-

toed shoes should not be worn in clinical areas. Hair should be neat. At no time should a student show up in jeans, midriff baring tops, flip flops, scrubs (unless warranted by the rotation and never the first day unless told in previous correspondence), shorts, or graphic t-shirts. One piece of advice offered is to look at what other physicians are wearing or ask "would I wear this to visit my grandma? (4)."

Time Off

Most schools allow very little time off from rotations. This policy is especially true during the third-year clerkships. All rotation activities are mandatory and the students should be made aware of the rules and guidelines regarding time off. Common reasons students request time off include personal illness, illness of a close relative, religious observances, special family functions such as weddings, or scientific meetings for which students may have had work accepted. For time off, the student must follow the rules established by the clerkship or dean's office, which may include notifying the office by phone or email or submitting a written formal request. Neither the resident nor attending should grant approval for an absence without consulting clerkship administration.

With respect to scheduled events within the rotations, including lectures, students are expected to attend all such activities unless other arrangements have been agreed upon by the department chair or course director. When on a rotation, the student must adhere to the medical care team schedule.

Consequences for Unprofessional Behavior

Most schools have a student progress/promotions committee or honor's council committee made up of faculty and peers. Students who have exhibited unprofessional behavior may be brought before these committees. Documentation regarding a student may be requested if this occurs.

Dealing with the Frustrated or Angry Student

Administrators routinely deal with frustrated and angry students. Much of a student's frustration might not be directed at the administrator, but the clerkship administrator has a responsibility to represent the clerkship on the front lines and be the key problem solvers. If meeting in person, let the student tell their story. Try not to interrupt or be defensive. Once the student is done, in a quiet and calm voice reiterate the problem and ask what solutions he or she can suggest (5). Once the student has talked the issue through, the majority of the anger will be defused, allowing the cause of the frustration to come to the forefront. If the student's issue cannot be addressed immediately, offer to look into the problem and get back to them. If appropriate, refer the student to the clerkship director. If the student starts to behave inappropriately or unreasonably, immediately ask the student to leave the office. Fortunately, this behavior is a very rare occurrence. However, do not hesitate to contact security for immediate assistance in the event of a threatening situation. In this case, make sure to immediately report the incident to the site director, the chair of the department, and the dean of students in writing. Such instances will likely result in the student being discussed at the student progress or promotions committee.

Difficult email interactions can be handled in a similar manner. Email can make students feel liberated from a common sense of decorum. If the email is truly unprofessional, it should be forwarded to the clerkship director or the student affairs office. In other cases, ask the student to speak about the matter in person as it is much harder for students to be inappropriate in person.

Handling Students with Cognitive Difficulties

Clerkship administrators have an important role in the education of students who have academic difficulties. Students are wary of being labeled with a learning issue or may not have insight into their deficiency (2). If a resident or attending observes a student's performance as deficient in terms of knowledge or clinical skills, it is important that the clerkship director be notified. The preceptor, attending, or resident will call the clerkship director to discuss the student, but it does not always happen because of competing interests on the evaluator's time or because the evaluator feels uncomfortable addressing a potentially difficult situation. It is therefore the administrator's role to foster communication and documentation.

The administrator has a key role in piecing together documentation and verbal feedback on student performance. Carefully review submitted

evaluations for concerns noted by the residents and attending physicians that may not have been reported prior to submission of the evaluation. If a resident responds verbally, it is important to bring this matter to the attention of the clerkship director immediately. Early intervention will help the student succeed. Cognitive difficulties are more easily identified by preceptors than behavioral difficulties (6). Residents and attendings are more comfortable remediating knowledge and skill deficits in students than behavioral issues. If a student is struggling with organization skills, presentation skills, and write ups, place the student on a supportive team with a resident known for their teaching abilities.

The school's student affairs office may or may not provide early warning about struggling students. This information is helpful to the clerkship director and administrator who can identify a supportive team prior to the start of the clerkship, make special efforts to track evaluations, and contact team members for mid-course feedback. Of course, it is important to avoid labeling students as "bad" and influencing their clerkship experience or evaluations. Poor test-taking performance on national boards and clerkship exams is another identifier of knowledge deficits. School policy will vary in regard to disclosure of sensitive information.

Feedback and Documentation

For a student in academic difficulty, feedback sessions with the clerkship director are important. The content and outcome of these sessions should be documented in the student's clerkship record. This documentation is essential if the student subsequently fails the clerkship or is called before your school's student progress or promotions committee. Scheduling frequent meetings between the clerkship director, involved faculty, residents, and the student to review progress will help the student stay on task.

Students, residents, attendings, and ancillary staff should be made aware of the support systems available for struggling students. This information can be provided on your clerkship website, presented at resident and faculty student teaching courses, or reiterated at student feedback sessions held with teaching teams. Emphasize to evaluators that the first step is to call the clerkship director. The clerkship director will decide how to intervene. School learning specialists, counselors, and the dean for student affairs are also important resources.

Student Feedback

To be an effective advocate for students, their needs must be understood. Listening to students will involve them in the learning process. For students to be active members of the team, their interests need to be represented. Include questions on the clerkship evaluation forms about the treatment by support staff at the site, overall quality of resident and attending teaching, and whether learning objectives are met, and if not, why?

Case Scenarios

These cases illustrate typical situations that clerkship administrators face.

Case One

The clerkship administrator receives a call in the morning from the chief resident. The third-year student has not shown up to the hospital for two days. The chief is aware of family issues that the student was dealing with at home but the student has not called to check in with the team. The residents and faculty are worried.

What are your concerns in order of priority?

- Is the student okay? First, find out what happened.
- How much time off will the student need?
- Will the student need to drop and reschedule?

What do you do?

- Email or call the clerkship director to inform him or her of the situation.
- Email and call the student. Page or leave a general voice mail asking the student to call the office as soon as possible.
- Contact the registrar to alert the Office of Student Affairs of the situation and find out if any additional contact information is available. Ask if they have additional information pertaining to this student.
- Do not involve other students on the rotation for confidentiality reasons.

It is now late afternoon and the chief resident calls again. The student has not checked in. The clerkship administrator calls the student again.

The clerkship administrator calls student affairs again. After consultation with one of the deans, it is decided that the police will be called and asked to do a safety check at the student's home.

At 5:00 p.m. the student sends an email indicating she had a family emergency and did not have access to a phone but can rejoin the team in the morning.

The administrator asks the student to contact the chief resident and the clerkship director as soon as possible to explain the situation. Page the chief medical resident regarding the situation.

Follow up

- Ask the residents and physicians to let the clerkship administrator know immediately if a student does not show up for work.

- Notify the clerkship director and Office of Student Affairs of the outcome so appropriate help can be offered to the student. Arrange for the clerkship director or Office of Student Affairs to meet with the student to explain that even in stressful situations, the student is held accountable and must notify the appropriate parties of absences.

- Explain to students in your orientation materials that if ill or delayed, they must contact their supervising resident and attending by phone to let them know they will not be in. Students should not leave a voice mail. If they cannot reach anyone, call the student program office. The student should follow established procedures for absences.

Case Two

The medical student was assigned to a clerkship during a winter rotation. The student contacted the dean's office with concerns about driving in winter conditions and asked for another site. This request was denied since most locations experience varying degrees of winter weather conditions.

At the end of the clerkship, the clerkship administrator reads on the evaluation form that the student often showed up late without calling. When asked about the tardiness, weather was indicated as a factor, although others had no problem getting to the hospital on time.

On the evaluation, the site director marked a low score under "professional character" due to lack of dependability and responsibility during the clerkship.

What are your concerns in order of priority?

- Why was the clerkship administrator or clerkship director not notified about the problem until after the clerkship?
- Was the student given feedback about the behavior? Is the feedback documented?
- Was the student receptive to the feedback?

What do you do?

- Speak with the site director to fully understand the circumstances.
- Discuss the circumstances with the clerkship director and review the final grade form together.
- If the final grade is determined by a committee, prepare documentation and bring to the attention of the committee for their recommendation for comments and scores on the final grade form.

The student did receive feedback and the score was upheld by the clerkship director and grade committee. When the student received the final grade, he emailed the clerkship administrator to complain that he was marked down because of circumstances outside of his control (winter storm) and would like a review of the final grade.

Follow up

- The clerkship director or administrator should speak with the site director to make sure these issues are considered professionalism breaches and the student program office should be contacted immediately.
- In response to the student's email, a meeting should be arranged with the student and the clerkship director. Before they meet, ask the student to document the concerns in an email to the clerkship director.

- The clerkship director reads the concerns and will speak to the site director again if necessary before meeting with the student.
- At the meeting, the student disagreed with the clerkship director's decision to uphold the grade and was invited to set up a meeting with the Dean of Student Affairs.
- A phone call should be arranged between the dean and the clerkship director prior to the student's meeting with the dean. The dean should explain to the student that the absences and chronic tardiness were both avoidable and reflect a low level of professionalism. The grade should be submitted without revision.

Case Three

The senior resident calls to let the clerkship administrator know that when the medical student showed up for bedside rounds with the team, his lab coat was wrinkled and he was wearing jeans and sneakers. The senior resident wants to let the clerkship director know that the student will be late for didactic teaching with the clerkship director.

What are your concerns in order of priority?

- Does the student understand the dress code policy?
- Should the clerkship be specific at orientation to describe appropriate dress?

What do you do?

- Let the clerkship director know the student will be late.
- Thank the senior resident for calling and ask to be notified if it happens again. Advise the senior resident that she should let the student know that if this happens again, the clerkship director and possibly the medical school will be informed.

After rounds, the senior resident takes the student aside and notifies him of the violation. The student explains he was running late and did not want to be late for rounds. The student is told to go home, change, and come back to the hospital properly dressed. If he lives near the hospital, he should be given an hour to return to the hospital. If he lives far away, he should be sent home and told to report the next morning properly dressed. The student should make up the day during one of the days off.

Follow up

- Review your orientation materials to make sure appropriate dress is described and provide a specific example to students with consequences. For the first time, give a warning; for the second time, plan to meet with clerkship director and include a notation on final grade form.

Case Four

The medical student is supposed to be at the hospital with her team. The attending calls and states that the student was present in the morning, but one of their patients took a turn for the worse and the student cannot be located. The clerkship administrator informs the attending that the situation will be handled and he will be notified.

What are your concerns in order of priority?

- Is the student okay? Is she ill or is there an emergency?

What do you do?

- Page and email the student and wait for a response.

The student calls back. The clerkship administrator tells the student that the attending called and has been unable to locate her. There is an emergency with their patient. The student informs the clerkship administrator she has been at the hospital all afternoon. The student then confesses that she was in the hospital library and fell asleep while reading.

Follow up

- You remind the student she must alert the team when she is leaving the ward. You advise the student to find the attending and follow up on the patient immediately.
- Thank the student for being honest with you.

Case Five

Finding attending coverage for one of the teams has been very difficult. There are four different attendings for the month and the senior resident

becomes ill with influenza and coverage must be found. One third-year student assigned to the team is having a rough time. The student has not requested to move teams but is in the middle of a difficult situation. Moving the student would overload one of the other teams.

What are your concerns in order of priority?

- Do you move the student to another team?
- Is the situation affecting the student's learning?

What do you do?

- Speak with the chief medical resident to make sure you understand the situation correctly and ask for his or her recommendation.
- Notify the clerkship director of the situation.
- Arrange a meeting with the student and the clerkship director to make sure the student is receiving adequate teaching. The chief resident will go over write-ups and case presentations on call nights with the student.

Follow up

- Learning how to manage stress is an important part of medicine. The student's mature approach to this difficult situation is noticed by all and reflected in the overall clerkship summative comments.
- Careful review of the students' evaluation packet is warranted to ensure that evaluations are valid. Evaluations with sporadic contact and/or low marks and no comments should be re-evaluated.

Case Six

The medical student comes into the office and requests Friday afternoon off to attend a friend's wedding. The student has a plane reservation to leave at noon on Friday and return on Sunday night. It is now 3 p.m. on Thursday.

What are your concerns in order of priority?

- Was this time off pre-approved prior to the clerkship by the clerkship director?

What do you do?

- Calmly tell the student:
  - Weekday time off requests are not granted. Any weekend or special time off request must be made prior to the start of the clerkship and then reviewed and approved by the clerkship director.
  - It is not fair to the team to cover his patients in his absence. The student could leave on Friday evening after work is complete and must be back at the hospital on Monday morning.
- The clerkship administrator emails or pages the chief resident and the student's senior resident and attending to follow up.

Follow up

- Make sure you have an absence and time off policy that explicitly states what time off is allowed (if any) and timeline for requests. Review at orientation.

Case Seven

The medical student recently took the shelf exam. Approximately two weeks after the exam, the clerkship administrator is notified by the National Board of Medical Examiners that the student's exam had a profanity written in the test booklet.

What are your concerns in order of priority?

- What should the clerkship adminstrator say to the student in case they ask about the status of their final grade?
- How the final grade process will move forward?

What do you do?

- Assist the clerkship director in contacting the appropriate chain of command as this matter is for the Dean and Student Progress Committee.
- Comply with any requests for documentation regarding the student's performance during the clerkship.

Follow up

- Read the exam instructions aloud to the students and note that any impropriety while taking the exam or written on the exam will result in punitive action by the medical school.

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The Ambulatory Clerkship: Scheduling, Orientation, and Community Faculty Recruitment and Retention

Approximately 90 percent of health care takes place in the ambulatory setting (1). Medical schools have made it a priority to train learners how to become efficient and effective physicians in the ambulatory setting. The challenges of setting up an ambulatory clerkship are many: physician-student-patient scheduling, assessing learners at away sites, recruitment of physicians, faculty development for clinical physicians, and site visits, to name just a few.

This chapter will discuss the various models of ambulatory care scheduling, the importance of communication, orientation, and community faculty recruitment and retention. Included are examples of schedules, forms, and letters that can be tailored to any ambulatory clerkship.

Models of Ambulatory Care Clerkships

Ambulatory care rotations can be offered in the third-year required clerkship; combined across specialties such as family medicine, internal medicine, and pediatrics for a multi-disciplinary clerkship block; or as a separate fourth-year required clerkship. The key is to schedule ambulatory rotations early, provide schedules and orientation materials to students and preceptors in advance, teach the preceptors how to teach, and provide recognition.

Ambulatory Clerkship Scheduling

Scheduling Preceptors

The first step in coordinating ambulatory care clerkships is to identify the teaching sites and clinic preceptors. Whether the clerkship administrator schedules preceptors and students annually or four to six weeks in advance of each rotation, teaching sites and preceptor framework schedules must be in place prior to scheduling students.

Creating a master schedule of clinics and preceptor availability is recommended for all teaching sites. An annual master calendar provides the administrator with a schedule for the entire academic year that will require only minimal revising. In early spring, contact all current preceptors and new recruits and invite them to participate for the coming academic year. Ask preceptors to indicate which rotations they would like to teach and indicate days they are not available to work with a student. Preceptors with complementary schedules can be matched. **Appendix 1** is a sample physician recruitment and rotation date preference form.

After receiving third-year student enrollment from the dean's office, finalize the schedule. Send a letter to preceptors indicating when they will have a student. It is important to copy the support staff and note in the letter that if changes are made to student registration, the office will be notified. **Appendix 2** is a sample annual master schedule timeline.

Setting the ambulatory schedules early allows the preceptors to plan their yearly vacation and conference schedules around their teaching responsibilities and make necessary changes to their patient flow to accommodate the teaching needs of the student. **Appendix 3** is a sample student assignment letter.

Scheduling Students

It is advisable to send an orientation letter or email to students four to six weeks in advance of their start date. **Appendix 4** is a sample student orientation letter and **Appendix 5** is a sample clinic schedule. Copying preceptors will remind them that they have a student assigned to them. Students are responsible for calling the site, introducing themselves, and making any arrangement necessary to start. Clinics or regional hospitals often require students to be credentialed weeks or months prior to their start. This paperwork is often required even with affiliation agreements and contracts in place. The clerkship administrator should work with the site and the dean's office to provide the appropriate paperwork. Be aware that some information is restricted by privacy laws and must be provided directly by the student to the site (e.g., Social Security number, immunization records).

Site Specific Orientation

Student Orientation

In addition to the clerkship requirements and goals and objectives, prior to their start, ambulatory students need a weekly schedule, the local clinic

address, description of clinic practice, driving directions, physician contact information (including pager number if arriving on a weekend), housing description (if rural placement), what to do if ill, and dress code. Providing this information on the clerkship website will save the administrator time in reproducing the packet for each rotation block. Specific instructions for any web-based teaching, such as lectures or clinical teaching cases, should also be included. Credentialing paperwork should be taken care of at this time as well. Students may need access to the local site electronic record system and computer training; Health Insurance Portability Accountability Act (HIPAA) may also be required upon arrival.

Physician Orientation

The purpose of an orientation for the physicians is to inform preceptors of the educational objectives for the clerkship, review basic strategies for successful office-based precepting, and help physicians make informed decisions about their participation.

Initially, a site visit is important to meet the new physicians and determine if the site is suitable for teaching. To maintain office/clinic efficiency, both the student and the preceptor need an examination room of their own. A room for the student is required so that the preceptor can remain productive by seeing one patient while the student sees another. If the budget allows, provide community physicians with resources for learning and improving office-based teaching techniques.

It is important that the physicians maintain efficiency in their practice while teaching. One strategy is a scheduling model called "wave scheduling." Wave scheduling allows the preceptor to attend students while seeing his or her own patients (see **Appendix 6**). Offering strategies for case-based learning is also helpful. Models such as the micro-skills model, "Aunt Minnie" model, and the one-minute observation are all techniques for effective teaching in the ambulatory setting.

Required expectations for preceptors should also include timely return of student evaluation and any other documentation. The clerkship should make it easy for the preceptors to access and complete the necessary documentation.

Finally, as important as a first-time physician orientation is, it is just as essential to remind preceptors of their responsibilities each time they are assigned a student.

Rural Ambulatory Clerkship

The ambulatory clerkship provides a unique opportunity for students to experience medicine in a rural setting. Making home visits to patients who are many miles from health care as well as witnessing the close ties physicians have with their patients and the role the physician plays in the community are just some of the aspects of the rural ambulatory clerkship. Many clinics or regional hospitals have referral areas that span a large geographic area. Students have the opportunity to care for patients with acute problems who may not have had regular medical care.

Despite these learning opportunities, students may have to be recruited to fill rural clerkships. It is important to advertise the benefits of rural clerkships to students, such as one-on-one teaching with an attending, ability to perform procedures, witnessing a wide variety of medical problems (many of them acute), and managing the patient from an initial clinic visit to the hospital. Students may feel they are at a disadvantage for a competitive residency if they go to a rural training site. The perception is that grades will suffer and letters of recommendation will be more difficult to procure. There is also the perception that teaching at the central site is better and more frequent.

Make sure the clerkship website and orientation materials include the benefits of rural training sites. Listen to student concerns and work with the school to provide early orientation to students regarding rural teaching sites, travel stipends for the student, time off to travel to the site if more than six hours away, and housing or housing stipend if a site is more than two hours away. Rural sites must have good Internet access for the student and access to web-based teaching tools. Having access to didactics and lectures is important to maintain teaching consistency across sites. If the department has statistics comparing final grades assigned by site and it is appropriate to share general data with concerned students, do so. Assure students that they may request a letter of recommendation from

the rural site coordinator (who may know them better than their urban inpatient attending) and the clerkship director.

Recruiting Volunteer Physicians

Clinical teaching programs have identified the need to involve community physicians in helping to educate their medical students. One of the unique aspects of the ambulatory clerkship is that these community-based preceptors are primarily volunteers. Physicians involved in office-based teaching are often concerned about the time and potential costs required for teaching. This section will focus on a variety of strategies to use in locating, recruiting, motivating and retaining volunteer community-based physicians to build a committed volunteer teaching faculty.

Recruiting volunteer physicians to teach can prove challenging. One strategy is to search announcements in the local papers for newly hired physicians in the community or surrounding area. These physicians may have previously been affiliated with a teaching program and are often interested in being identified with the local medical school. Contact the graduate program regarding residents that are finishing up their training to see if any are staying in the area. Seek out other clerkships that offer outpatient rotations to students. Compare notes, as these individuals might be able to help locate and establish contacts at clinics in the area. Of course, word of mouth is always a good way to identify potential preceptors. Once a year, ask some of the best preceptors to identify a few people in their area who they think might be interested in teaching.

Networking with Medical Staff Offices in the Local Community

Ask local medical staff offices to advise the clerkship of newly hired faculty and contact physicians by phone or email. Teaching medical students is a good way for new faculty to be recognized. Be sure to include in the correspondence detailed information about the clerkship expectations, time commitment, goals, and some of the benefits that are available to teachers in the program. It is important that they make an informed decision and understand the teaching responsibilities. **Appendix 7** is a potential preceptor letter.

Motivating and Retaining Community Physicians

When striving to motivate people, it is important to identify what motivates them. Studies done over the past several years have identified that community-based physicians are primarily motivated by personal satisfaction they derive from the teaching encounter, identification with the university as a meaningful part of the medical education program, and genuine recognition of their efforts from the medical school (2).

One approach to enhance the personal satisfaction with the teaching encounter is to send a thank you letter at the end of each clerkship rotation with a copy of the student's evaluation. This communication conveys appreciation and provides immediate feedback that the preceptors need to continue to improve their teaching skills. Sending the website address for an online evaluation may not be adequate. Many preceptors do not have the time or computer skills to access these electronic resources.

Providing clear expectations and guidelines will help physicians succeed as teachers and help them view teaching as a meaningful task. The clerkship administrator can visit the preceptors to discuss the goals and expectations of the clerkship and provide them with strategies for successful office-based precepting.

Faculty development workshops sponsored by the university or department encourage a sense of identification with the university. Sending an annual newsletter that highlights the contributions of the community-based faculty is another strategy to enhance the sense of belonging to a university community of teachers. The newsletter can include quotes from students about their experiences and also note the overall ratings from students in regards to their experience with their preceptors as well as articles about teaching in medicine. It can also include dates of upcoming faculty development sessions.

An opportunity for a volunteer faculty appointment identifies the community-based preceptor as part of the medical school teaching faculty. There are other benefits associated with the appointment, such as access to the medical library resources and

discounted tickets to performances or athletics. A small monetary stipend may be provided to volunteer physicians; however, it has been shown that money is not the driving force behind teaching satisfaction (2).

Another way of showing appreciation from the school to community faculty is to recognize outstanding accomplishments in the program. The students can nominate their preceptors for an annual award given by the department for excellence in teaching in ambulatory medicine. Letters can be sent every two years or so by the dean's office thanking community physicians for their dedication. **Appendix 8** is a sample community physician thank you letter. An annual dinner for community physicians gives the physicians an opportunity to get together with their colleagues and share experiences and foster relationships with the university-based faculty. The dinner should be attended by one or more prominent members of the school of medicine.

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Appendix 1: Sample Physician Recruitment Letter

Date

Dear «Salutation»:
I am writing to invite you and your colleagues at «Site» to continue as general medicine preceptors in the Ambulatory Component of the Internal Medicine Clerkship for the 2006-2007 academic year. This letter is addressed to you in hopes that you would coordinate a reply from all members of your group. Please consider accepting one or more students in the summer months. Most students want to do medicine before other rotations, but faculty are traditionally less available until later in the year. Please fax your two-page reply form to Susan Larkin at (203) 688-4092 by April 13, 2006. **Note that there is no student clerkship between December 4, 2005 and January 2, 2006, as this is the holiday recess.**

The Ambulatory Clerkship continues to be an outstanding clinical rotation. Students have given it very high ratings for providing a rigorous and well-tempered grounding in principles of ambulatory internal medicine. Evaluations by students indicate that our success is primarily a result of effective teaching from preceptors who have acquired considerable expertise in clinical education.

The curriculum for 2006-2007 will be the same as last year. Most students will spend eight half-days per week in a general medicine practice. Some students will divide their time between a general medicine and subspecialty practice. When not in practice, all students will spend two half-days per week in class.

This year, I am again asking individual preceptors (or practice groups) to consider teaching at least three students (one student per month for three months). This amount of participation assures that students encounter practiced, accomplished preceptors who know the educational aims of the clerkship.

Thank you very much for considering this invitation. I would value highly your participation in the Ambulatory Clerkship. If you have questions, please call me at 688-4545.

Please fax this form to _____ by April 13, 2006.

Section 1.

_____ I **am** interested in participating as a General Medicine Preceptor.
_____ I **am not** able to participate as a preceptor at this time.

If you are interested in precepting, please complete sections 2-5 below.

…….……

Section 2.
Will you be precepting as an individual or member of a group of physicians who will share responsibility for precepting one student per month? Please check. ✓

Individual _____ **Note**: If you are precepting as a group member, only one
Group _____ representative of your group needs to return this form.

Names of Group Members who will be precepting:

_____ _____
_____ _____
_____ _____
_____

Section 3.
Please rank according to preference the rotations when you (or your group) **will** be able to precept.
Do not rank months when you or your group will not be available. **Please consider accepting one or more students in the summer months**. Most students want to do medicine before other rotations, but faculty are traditionally less available until later in the year.

Rotation	Dates of Rotation	Please Rank (1 = most preferable, 12 = least N/A- Not Available) (1 = most preferable, 6 = least)
1	6/19/06-7/14/06	
2	7/17/06-8/11/06	
3	8/14/06-9/08/06	
4	9/11/06-10/06/06	
5	10/9/06-11/03/06	
6	11/06/06-12/01/06	
7	1/2/07-1/26/07	
8	1/29/07-2/23/07	
9	2/26/07-3/23/07	
10	3/26/07-4/20/07	
11	4/23/07-5/18/07	
12	5/21/06-6/15/06	

Please fax this form to by April 13, 2006.

Section 4.

Please indicate if you are interested in sharing precepting responsibility with a subspecialty preceptor. Physicians who share will have a student for approximately six of the student's required eight weekly general medicine sessions.

_____ Yes, I am/we are interested in sharing, but could also precept without sharing.

_____ Yes, I am/we are interested in sharing and would prefer to share.

_____ No, I am/we are not interested in sharing.

Section 5.

Please circle the total number of rotations you or your group will be able to precept. The suggested minimum is three rotations per year.

1 2 3 4 5 6 7 8 9 10 11 12

Section 6.

Please indicate with an **"X"** all the ½-day sessions when you (or your group) **will** be available to precept. A student will be assigned to you for 6-8 sessions per week. **Note:** Students are in class on Monday and Thursday mornings.

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	**CLASS**			**CLASS**	
PM					

Appendix 2: Timeline for Master Scheduling

I. Spring Recruiting:
In the spring contact all of the current preceptors and new recruits we have identified by mail and ask them to participate for the coming academic year. On an attached reply sheet, each preceptor indicates which rotations work best for their schedule and also indicates any days they are not available to take the student.

II. Make the schedule:
Plug all of this information into a spreadsheet and see who and how many preceptors are available for each rotation. Also look at which preceptors have days they don't want a student and match them up with a sub-specialty preceptor with availability on those days and rotations. Simultaneously Student Affairs is getting their third year schedules together and you are provided with the names and number of students for each rotation.

Use the master availability report to see who is available when and how many preceptor's you need and make the schedule.

III. Sending out the schedule
Send a letter indicating when the preceptor will have a student. (there are some sites that take students every month). It is indicated in the letter that sometimes students switch rotations and there is a possibility they may not have a student and we will notify them if this happens.

IV Scheduling the students
Six weeks before the rotation begins send out a preference form listing the preceptors availability for that rotation. Take the student choices and match them up to a site. Send a letter four weeks in advance to the preceptors with the student's name- this also serves as a reminder. Send the students their schedules 2 weeks in advance. The student is responsible for calling their site(s) introducing themselves and making any arrangements necessary to start there.

V. Comments:
It happens maybe once a year, if any, that a preceptor has to cancel. (how do you provide an alternative preceptor? Do you have backup preceptor for each block?)

Start this process in March, and make the final schedule in June (for the summer months, make one in May for just those three months) to be ready for the academic year to start in July. Having the preceptors lined up for the entire year works well. Keep the availability spreadsheet in case you need to add a preceptor here and there

Appendix 3. Student Assignment to Preceptor

Dear Dr. :

(Student Name) has been assigned to your office to begin the one-month rotation in the Ambulatory Component of the Internal Medicine Clerkship. (Student Name) is expected to begin clinical work with you on **9/11/07**. (Student Name) will be instructed to call your office prior to arrival. Orientation and classroom activities for students in the Ambulatory Component of the Internal Medicine Clerkship will be held on Monday, September 10, from 9:00 – 11:45 a.m.

Enclosed you will find the schedule of (student name's) day assignments with you.

As you know, the principle responsibility of a preceptor is to assure that students achieve the educational learning objectives of the clerkship. These are listed in the Preceptor's Handbook. If you do not have a current copy of the handbook, please let me know, it is also available on our website at http://info.med.yale.edu/intmed/education/ambulatory/index.html.

To help students achieve their learning objective, please:

1. Assure that the student completes an independent evaluation of at least two patients/half-day sessions. The student does the history and physical, states a differential diagnosis and proposes a plan. Always have the students do the wrap-up with the patient (of course, you may observe this or repeat it as necessary to assure quality of care).
2. Be sure the student sees an adequate variety of patients. Optimal rotations always include urgent visit patients.
3. Meet with students outside of clinic at least once/week. Always ask, "How are things going?" and "How can we change this experience to better suit your needs?" Based on your assessment and the students' own assessment of their needs, set learning priorities for the next few days.
4. Using the Student Record Book,
   A. Provide written comment on one visit note per week for each of the first three weeks.
   B. Certify the student's competence in the Patient Interview and Visit Closure. The student has been instructed to give you the booklet for your feedback. Give the booklet back to the student within 24 hours.
5. Help your student prepare their two required classroom presentations: report and student faculty rounds.
6. Complete an evaluation on the student within twenty-eight days of the rotation. Evaluations are done online with E*Value at www.e-value.net. You will be emailed a notice regarding your evaluation the last week of the rotation.

PLEASE NOTE: You will be contacted immediately if there are changes in registration or cancellations.

If you have any questions, please call me at (203) 688-4545. Thank you again for your participation.

cc: Office Staff

Appendix 4: Sample Site Orientation Letter Sent to Student

TO: Medical Students
FROM: Director, Ambulatory Care Clerkship

Welcome! I look forward to working with you during your four-week clerkship at the [Clinic Name]. You will work in the Primary Care Clinic, Women's Clinic and Virology Clinic at [Clinic Name] while on your clinic rotation.

A schedule for your four-week clinic rotation is attached. We will discuss this schedule at your orientation with me on the first Monday at 8:00 a.m.

It is absolutely crucial that you have an active account to access the patient records system at the [Clinic Name] and a photo ID badge. If you do not remember your login and password please call the CIS help desk. If your access has expired please contact [Name] **at least 5 days prior to your start date** to fill out a request form. It does take the systems office at least 4 days to process the request. If you need assistance with a badge please contact [Name].

Please review the two attached handouts, "Clinic Site Orientation" and "Tips for Success".

Where to report on your first day of the clerkship:
Meet with me on Tuesday, September 4 at 8:00 am in the General Internal Medicine Clinic, [Address].

Computer TRAINING
There is a computer training session scheduled on _____ located at [Address]. If you are new to the computer systems, I would encourage you to join the training session.

Where to report on Monday afternoons:
You will meet with me every Monday afternoon at 1:00 pm in the clinic conference room, W320 at [Address] for Outpatient didactics. Directly following this at 3:00 pm each Monday you will meet with Dr. Smith at [Address] for another didactic session.

Our schedule for outpatient didactics will be:

Week One -Preventive Medicine: [Reference]
Week Two- Hypertension: [Reference]
Week Three- Hyperlipidemia: [Reference]
Week Four – Outpatient management of diabetes: [Reference]

To prepare for these sessions, please review the topics in your textbook as well as the references listed above. We will then discuss cases during our sessions so you can apply what you've learned.

What to do if you need to miss a clinic session:
Our expectation is that you will be present for each clinic session scheduled. We realize however that there may be unavoidable absences due to illness or personal emergencies. If you find that you need to miss a clinic session, please contact the attending for that clinic session directly via the paging operator at [Number] as soon as possible. You can find out who the attending is from your clinic schedule. All absences should also be discussed with me, in advance if possible.

If you have any questions regarding your schedule or problems during your outpatient block please call me at [Number], page me at [Pager], or email. I forward to working with you during your clinic rotation.

Enclosures: Clinic Schedule
cc: Clinic attendings

Appendix 5: University-Based Clinic Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Sept. 3 AM: 8-12 Holiday	Sept. 4 AM:8-12 **Orient –** **Attending Name: 8-9,** **Room Number** 9:00 - Primary Care Women's Clin Attending Name	Sept. 5 AM: 8 AM-12 * Virology Clinic Attending Name	Sept. 6 AM:8-12 8:00 – 9:00 Medicine Grand Rds- Room Number 9:00 – 11:15 – Clerkship Lecture 11:30 Gen. Med. Conf Room Number	Sept. 7 AM:8-12 Primary Care Attending Name
PM: 1-5 Holiday	PM: 1-5 Primary Care Roosevelt Women's Clin. Attending Name	PM: 1-5 Primary Care Roosvlt Attending Name	PM: 1-5 1:00-2:30- Room Number Outpt clin problem solving Attending Name	PM: 1-5 Primary Care Attending Name

* Please check start time for Virology each week. Start time for Attending #1 is 8AM, and Attending #2 is 8:30AM and 9AM for all other attendings.

Appendix 6: Sample Wave Scheduling

Schedule		
Tues.	**Physician name**	**Student name**
TIME [9-12]	**PRECEPTOR'S SCHEDULE**	**STUDENT SCHEDULE**
8:40		Patient 1
9:00	Supervise Student	"
9:20	Patient 2	"
9:40	Patient 3	Patient 4
10:00	Supervise Student	"
10:20	Patient 5	"
10:40	Patient 6	Patient 7
11:00	Supervise Student	"
11:20	Patient 8	"

Appendix 7: Sample Potential Preceptor Letter

Dear Dr. Smith,

I am writing to you at the suggestion of John Doe, MD. Some months ago, I asked Morris for the names of outstanding physicians who, in his opinion, would be good potential teachers for the Ambulatory Component of the Internal Medicine Clerkship at Yale School of Medicine. He suggested you.

The Ambulatory Component is a required rotation for third-year students. For one month, each student is placed in the office of a general internist (or group of internists) where the student interviews and examines patients independently under close supervision. Students are challenged to arrive at their own assessment and to take the maximum responsibility for patient care commensurate with their preparation and skill. When the rotation is successful, students say they feel like a partner in their practice. In this mentorship arrangement, learning is efficient, rapid, and pleasant.

The Ambulatory Component is one of the most popular clerkships in the school. The mixture of responsibility, patient variety, rapid learning, and mature supervision has a remarkable effect on students. Nowhere else in the curriculum do students work as closely with experienced physicians who are as fully committed to the students' professional development.

Most preceptors in the clerkship take a student into their office for 6-8 half-day sessions per week for 1-4 months per year. Other than the intrinsic reward of teaching, preceptors in the clerkship have faculty appointments and opportunities to participate in varied activities at Yale Medical School. To provide more information about the clerkship, I have enclosed a copy of our faculty handbook. We also have a website: (http://info.med.yale.edu/intmed/education/ambulatory/index.html).

I will call you in the next couple of weeks in hopes you may be interested in learning more. If so, I would like to visit with you and tell you about our program.

Sincerely,

Director, M.D.

Enclosure: Handbook

Appendix 8: Community Physician Thank You Letter

John Doe, M.D.
Address

Dear Dr. Doe,

I am writing to thank you for teaching this past year in the Ambulatory Component of the Internal Medicine Clerkship. During a regular review of our clerkship programs, I have become aware of how *University* students depend on the generous involvement of ambulatory care teachers. Your time and effort has helped this school to achieve its goal of excellence in clinical teaching.

Recent students who have worked with you have indicated enormous satisfaction with their experience in your office. It is very apparent that you create a very supportive learning environment and that you convey an interest in having students with you.

You are probably aware of comments from one student:

(insert personalized paragraph)

This is an extraordinary compliment and speaks a great deal about you as an individual and teacher.

The Ambulatory Component of the Internal Medicine Clerkship remains one of the most popular courses in the medical school. The school is very proud of this accomplishment, but we recognize that credit belongs to members of the faculty, like you, who volunteer to teach. I am deeply committed to sustaining the success of the medicine clerkship and look forward to working with you in the future as we explore ways to solidify our gains and plan for future growth. Thank you again.

Sincerely,

John Smith, M.D.
Dean

The Objective Structured Clinical Examination (OSCE)

OSCE Overview

The goal of this chapter is to provide a practical guide to the objective structured clinical examination (OSCE). The OSCE tool may be utilized to test a student's skill level in areas such as communication, physical examination, medical procedures, and interpretation of test results (e.g., x-ray, bone scan, blood smear). The student's skills are tested in timed stations involving one-on-one interaction with standardized or clinical patients.

OSCEs may be conducted at the end of the clerkship for incorporation into the student's final grade or earlier in the rotation for learning and constructive feedback purposes. Orchestration of the examination can be complicated, requiring coordination of a variety of items that may include developing cases/stations, recruiting assessors, hiring and training real or standardized patients, and providing feedback to the students.

Every institution handles OSCEs in a unique way. The clerkship administrator may not be involved with every aspect of OSCE described in this chapter. However, a general understanding of the purpose, format, and coordination of OSCE can enhance the ability to support and prepare students for these examinations and related licensure requirements.

USMLE Step 2 Clinical Skills Examination

OSCEs are an effective way for students to refine their skills in the basic clinical care of patients while preparing for the US Medical Licensing Examination (USMLE) Step 2 Clinical Skills (CS) examination. The Step 2 CS examination is now required for licensure of all US medical school graduates (1). The Step 2 CS is designed to assess whether test takers are capable of demonstrating the basic clinical skills necessary to provide "safe and effective" medical care to patients. In essence, the Step 2 CS is a large-scale, high-stakes OSCE. As such, clerkship directors and administrators may use their OSCE to aid students in preparing for this examination.

Currently, the Step 2 CS is offered at five locations in the United States. Medical students can register during their third or fourth year to complete the examination in the following cities: Philadelphia, PA, Atlanta, GA, Los Angeles, CA, Chicago, IL, and Houston, TX.

Scheduling of the USMLE Step 2 CS examination is completed electronically. Students select a preferred date and testing center and are then given the options available. All scheduling is done on a first-come, first-served basis, with no guarantees regarding availability of particular dates or centers. As such, students and their programs will need to demonstrate some flexibility when arranging time to complete the examination.

The Step 2 CS examination is administered over the course of eight hours with one 30-minute break and one 15-minute break scheduled during that time (2). Each student completes 12 patient encounters and writes 12 patient notes during the examination. Students are allotted 15 minutes for each patient encounter and 10 minutes for each patient note.

Preparation for the Clerkship OSCE

Objectives/Goals

The clerkship director should determine the goals and objectives for OSCE. Such focus provides the driving force in determining the specific cases, rooms, and patients/actors needed.

Case Development

The clerkship administrator may work closely with the clerkship director in determining the logistics, content, and format when developing cases for OSCE. There are a variety of ways to develop the case bank, including institutions willing to share their cases; organizations such as the Association of Standardized Patient Educators (ASPE) which have banks of cases available to members; networking with other educators; and developing original cases.

Creating cases from scratch is the most time and labor intensive option. The "Clinician Case Development Work Sheet" (**Appendix 1**) and sample case template (**Appendix 2**) can be of assistance in this process.

Standardized Patient Recruitment

Many medical schools have departments responsible for recruiting and training standardized patients (SP). If not, recruitment and training may be the clerkship director's responsibility.

Some schools hire individuals to portray patients for the cases being used. Such SPs may be recruited from a variety of sources, such as an acting agency, local churches, retiree groups, colleges (especially students with an interest in drama), or by word of mouth. When SPs believe in what the clerkship is doing, they become the best advertisement.

SPs must meet the requirements of the case. These include:

- Age range: Determine what flexibility, if any, in the age of the person portraying the case is acceptable to give a broader range of candidates from which to recruit while maintaining the integrity of the case.
- Ethnicity: Certain diseases are more closely correlated with specific ethnic groups.
- Gender: With some minor adjustments, a case can generally be played by a man or a woman.

Recruitment of Patients with Clinical Findings

Clinical patients provide students with the opportunity to see and feel actual physical findings. However, some issues will need to be addressed prior to OSCE:

- Weighing the appropriateness of the physical finding to the objectives and students' level of training.
- Receiving permission to obtain/share confidential patient information to develop an accurate scenario.
- Contacting the Institutional Review Board (IRB) regarding any necessary human subject concerns paperwork or permissions.

Finding the right match between station requirements and recruitment of patients with specific physical findings requires assistance from the various subspecialties within the clerkship. Clinical staff are a good resource in patient recruitment. Obtain updates from the patient or clinician on a regular basis regarding their physical findings and any other information that might affect their participation to bring the bank of exam findings up to date for future cases.

Once a potential patient is selected, contact that individual so they understand exactly what participation will involve. Outline the entire process, including the logistics of the exam day: what the patient needs to do, how long the exam will take, and the number of encounters they will complete. Remind them they will be paid for their time and at what rate.

Once parameters have been established for the patients (standardized or clinical) and a pool of applicants has been secured, the interviewing process can begin. Each applicant should complete an application prior to the interview (**Appendix 3**). The application should contain the information necessary to determine if the person will make a good SP for the case. The ideal individual is one who understands the goals and is open to the training necessary to achieve them. When finalizing the selection of individuals, try to have at least two for each case so a backup is available.

The pay rate for patients may be predetermined by the institution. Check with the medical education office or simulation center to ascertain what pay rates, specific waivers, or employment paperwork is required. If no policies or rates currently exist, contact other schools for their information to assist in the development of guidelines for the clerkship.

When determining a pay rate, establish separate rates for training and portraying the case. A log sheet for patients to sign in and out provides an easy method of tracking hours and ensuring efficient, accurate payment.

Standardized Patient Training

If your institution does not have a simulation center, the clerkship administrator may assist in the training of SPs. Once the SP is familar with the case, the scenario should be played out by the patient and trainer. Video recording the encounter allows for review and determination of any necessary case or performance changes. If possible, this practice should be done at least two weeks before the OSCE to allow adequate time for changes. The video

recording also provides a valuable tool for training of future SPs.

Administering OSCE

Scheduling, Timing, and Miscellaneous Duties
After finalizing the cases and patients, the logistics of OSCE itself can be coordinated. Clerkship administrators with access to a simulation center may utilize the resources of the center. For other clerkship administrators the following areas will need to be addressed:

- Reserve rooms and equipment according to the needs of each case.
    a. Physical examination room
    b. Patient counseling room
    c. Diagnostic room
- Contract with a professional technician to provide video recording staff and equipment.
- Ensure all rooms and staff have the necessary supplies (**Appendix 5**).

Putting It All Together

As with many other aspects of a clerkship administrator's job, organization, flexibility, and creativity are the best tools. For assistance in staying organized throughout the process, see **Appendix 6**. Remember: there is no right or wrong set of rules for planning OSCE. What matters at the end of the day is success in meeting the goals and objectives of the examination.

References

1. American Association of Medical Colleges Group on Student Affairs. *USMLE Step 2 Clinical Skills (CS) Exam Frequently Asked Questions.* Online. http://www.aamc.org/members/gsa/cosfa/usmlefaqs.htm. Accessed January 4, 2008.

2. United States Medical Licensing Examination. *Step 2 Clinical Skills (CS) Content Description and General Information.* Online. http://download.usmle.org/2008/2008csmanual.pdf. Accessed January 4, 2008.

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Appendix 1: Clinician Case Development Worksheet

General Instructions

Select a real patient case which incorporates the medical, psychosocial and communication skills that are to be assessed. Ideally the patient is well known and cared for by at least one of the clinicians developing the case. If this familiarity is not possible, the next best option is to develop the case from a patient's chart.

Provide the information below in outline form. You may use technical/medical terminology in this layout. This worksheet will be the basis for the development of all other case materials – training materials for the standardized patients (SP), instructions for the examinee, checklists, lab results, etc. Remember to include both elements expected in the evaluation by an entirely proficient student and those that may be conducted by a student who is slightly off-track.

Clinical Consultant – List the name of the clinician for the patient upon whom the case is based.

Case Authors – List the names of the contributing authors to the case development

Actual Diagnosis – State the actual final diagnosis even if, at the end of the encounter, the examinees will need more information from follow up tests to make this determination. This diagnosis is important for several reasons: 1) it helps anyone who has not worked directly on the case to determine whether or not the case might satisfy future clinical examination needs; 2) it provides the back-up information necessary in training when questions arise about the nuances of the simulation.

Patient Name – Create a fictitious name for the patient (to protect the identity of the real patient).

Patient Demographics –

1. Age: specify as broad a range as acceptable
2. Sex: consider M/F/immaterial
3. Ethnicity: specify in particular background desirable/necessary
4. Height: specify range if relevant
5. Weight: consider slender/average/obese/morbid/immaterial

Case setting: Inpatient/Outpatient

Pt location in exam area: chair/exam table/bed

Exam area: any special furnishings or equipment for this case?

Assessment Objectives – List all objectives for the case.

After completion of this OSCE, the learner will have worked through the tasks identified at each station.

Descriptive Materials

1. Patient's Personal Presentation and Emotional Tone
   a. Physical Appearance (e.g., where patient is and what patient is doing when encounter begins; what patient is wearing – gown and underwear, kind of clothing, make-up, jewelry, posture, affect, any visual signs of illness)
   b. Interaction Style (e.g., talkative, reticent, friendly)

c. Emotional tone or primary emotion and precipitating stressors (e.g., depression/sadness, angry, anxious, fearful, calm or accepting – specify if precipitated by divorce, problems with family members, death in family, weight problems, pain, long wait in doctors office, etc.)

2. History of Present Illness
   a. The chief complaint at the time of the visit (Write a one or two sentence description of what caused the patient to seek help.)
   b. The symptoms in detail (Describe all symptoms clearly and succinctly, e.g., pain – location, type, amount, duration, what makes it better, what makes it worse, any self treatment, etc.)
   c. History of the present illness (Describe and include such information as: onset of symptoms, details about any recent illnesses/medical care of hospitalizations related to present illness. With medications, be sure to include both prescribed dosages and the amount the patient actually takes and any non-prescribed preparations the patient is taking). Following is a sample list for a complaint of pain.
      1. Location:
      2. Quality:
      3. Quantity/Severity:
      4. Onset:
      5. Duration:
      6. Aggravating/Alleviating Factors:
      7. Associated Symptoms:
      8. Patient's perception of the problem:
   d. Any other medical conditions that may impinge upon the current complaint
   e. Any "problem behind the problem" (Describe any emotional, psychological, or social problem that the patient is dealing with that may relate to the presenting medical problem. Indicate what the patient does or says that cues the interviewer that there is a "problem behind the problem").

3. Patient Risks and Habits
   Include the facts and indicate how the patient reacts to questions in each of the following areas:
   a. Life style
      - Alcohol:
      - Smoking:
        a. Over the counter drugs/Herbal remedies:
        b. Caffeine:
        c. Illicit:
      - Diet:
      - Exercise:
      - Other activities/hobbies/interests:
   b. Relevant sexual history (Be sure to include relevant history of present/past partners).
   c. Risk for suicide (Include specifics related to whether the patient has a plan, what the plan consists of, and availability of means).
   d. Environmental, occupational or other risk factors (Include factors related to the person's job, recreational activities or place of residence).

4. Past Medical History
   a. Relevant personal past medical history
      1. General State of Health:
      2. Adult Medical Illnesses:
      3. Past Hospitalizations/Surgeries:
      4. Allergies and Immunizations:
      5. Gynecological/Genitourinary:

b. Relevant family medical history
c. Information patient might need to answer any medical questions likely to be asked (List potential questions followed by information patient needs in order to appropriately respond).

5. Psychosocial/Personal History
   Include sufficient detail to accomplish two tasks: 1) to provide enough information about the character, life style and background of the patient for the SP to thoroughly understand the person to be portrayed and 2) to allow usage of the case in situations where obtaining an appropriate psychosocial history is an integral part of the examinee's task.
   a. Personal family/social history (Describe nuclear family, including where patient grew up and number and ages of siblings. Include any other information needed to understand the patient, e.g., middle class, friends/social circle, religion/involvement in church activities, abused as a child, grew up in a single parent household, emotional closeness/distance to family members, etc.)
   b. Educational background and occupational history (Include specifics about where went to school and where works).
   c. Living arrangements (Include specifics about where patient lives, with whom, and information about any recent changes).
   d. Describe a typical "day in the life" of the patient (From what you know and understand about the patient, interpolate what goes on from the moment the patient wakes up in the morning to when he goes to bed at night).

6. Information the Patient Volunteers or Must Ask the Examinee (List and state what questions or issues the SP must bring up, under what circumstances, and where in the encounter these issues must occur. Include any examinee behavior that triggers the volunteering of information, followed by any further information/behavior from the patient in response to the examinee).

7. Things the Patient should NOT Do or Say (List and explain anything that specifically might confound the case).

8. Physical Examination
   a. Physical examination maneuvers the examinee is required to perform (List and describe. Include any simulated reactions to physical exam maneuvers the SP must incorporate)
   b. Other physical examination maneuvers the examinee might perform (List and describe).
   c. Special equipment needed (List any medical supplies or equipment – outside of what is already part of the basic set up for the simulated clinic rooms – that examinee might need to perform the required physical examination).
   d. Pelvic, Genital, Rectal and/or Breast Results (If the examinees are not required to physically perform these examinations, the results need to be made available during the encounter if relevant to case. When the examinees indicate they would like to do any one of these exams, the SPs will indicate where in the room they can find the written results).

Laboratory Data, X-Rays or Other Medical Information

List all data and information in a format appropriate for use by the examinee. (Indicate when in the encounter you anticipate the examinee should receive this information; e.g., With the Presenting Information, the Interstation Exercise, etc.)

Interstation Exercise and Key

List activities for the examinees to complete following the encounter with the patient. (Include correct

responses for all activities listed. These activities might include the answering of general or specific questions related to the patient the examinee just evaluated, writing the Assessment and Plan of a SOAP note, reading an x-ray related to the patient's condition, interpreting of lab results or other tests (e.g., blood tests or EKG), etc.

Reference

Adapted from Wallace P. *Coaching Standardized Patients: For Use in the Assessment of Clinical Competence.* New York, NY: Springer Publishing Company, 2007.

Appendix 2: Sample Case Template

Objective Structured Clinical Exam
Case Summary

PLACE YOUR INSTITUTION'S LOGO HERE

Assigned Standardized Patient Name for Scenario:

Clinical Scenario/Diagnosis:

Presenting Complaint:

Case Author:

Date Developed:

Educational Setting:

Educational Objectives:

After completion of this OSCE, the learner will have identified the objectives at each station.

Standardized Patient Training Information

Case Synopsis

Patient Demographic (please change as same list above)

1. Age: consider ranges
2. Sex: consider M/F/immaterial
3. Ethnicity:
4. Height: consider short/average/tall/immaterial
5. Weight: consider slender/average/obese/morbid/immaterial

Beginning the encounter:

- SP response to greeting/introduction by learner

Why you are seeing the doctor today (History of your Present Illness): This should be developed as a discrete timeline and if pain is a symptom, must include all characteristics (e.g., location, quantity or amount, character, duration, what makes it better, what makes it worse, associated symptoms, etc.) Also include the following information:

- Personal/life circumstances at onset of symptoms
- Psychosocial consequences, if any, e.g.,how illness has affected pt
- Pt response to the symptoms, e.g., what pt has done about them
- Meaning of illness to the pt, e.g., pt ideas about possible causes
- Pts biggest worries/concerns about illness, if appropriate

Provide specific guidance for how the SP should report the HPI:

- SP response to first inquiry by learner, e.g., "what brings you in today":
- If/when invited to say more with appropriate questioning skills, SP response:
- Given more opportunity to speak and appropriate development of rapport, SP response:

How you appear during the encounter:

Emotional State during the encounter:

- Do any issues raised by learner change the SP appearance or affect?

General Guidelines for the encounter:

Specific questions that might be asked by the learner:

Specific questions you must ask the learner:

Ending the encounter:

Standardized Patient Training Information

History of Presenting Complaint

Identifying Information

Past Medical History

General State of Health:
Adult Medical Illnesses:
Past Hospitalizations/Surgeries:
Allergies and Immunizations:
Gynecological/Genitourinary:
Medications:

Family History

Social History

Sexual History

Review of Systems:

Standardized Patient Training Information

Physical Exam

General Appearance:
Head/Eyes/Ears/Nose/Throat:
Neck:
Lymph Nodes:
Breast:

Lungs:
Heart:
Abdomen:
Pelvic/GU:
Musculoskeletal:
Back:
Extremities:

OSCE Exam Room Set-Up

Scenario Synopsis:

Station Set-Up:

Equipment/Props:

Appropriate Standardized Patient attire:

Physical Exam equipment needed:

Props needed for OSCE case:

Student Instructions

Patient's Identifying Information and Presenting Problem:

Vital Signs
Blood Pressure:
Temperature:
Pulse:
Respiratory Rate:

Student Directions:

In the 15 minutes with the patient:

- Take a focused history regarding the patient's chief complaint.
- Perform a focused physical examination.
- Explain your diagnostic thinking

In the remaining 10 minutes (outside the patient room):

- List your principal differential diagnoses.
- Describe your plan for any further diagnostic evaluation.

Note at bottom of student instruction sheet:

(Do NOT perform rectal, pelvic, genitourinary, female breast, or corneal reflex examinations, but introduce the exam if appropriate in response to which the SP will provide physical findings report)

Guidelines for Evaluation of Student OSCE Note

Evaluation overview: The quality standard for the student encounter note is a level of performance representing a student entering supervised practice (internship). In the history and examination, insure that many/most of the important items are documented. In the diagnosis/ differential diagnosis, evaluate for presence of most important and/or "must not miss" diagnoses and that data in history and examination justify the diagnoses listed. In the workup, evaluate for consistency with differential diagnoses.

History: The following pertinent positive and negative components of the comprehensive history would be considered complete for this OSCE case.

Chief Complaint:

(Each of the following should be elicited if relevant in the history)

HPI:

- Location:
- Quality:
- Quantity/Severity:
- Onset:
- Duration:
- Aggravating/Alleviating Factors:
- Associated Symptoms:
- Patient's perception of the problem:

Past Medical History

- General State of Health:
- Adult Medical Illnesses:
- Past Hospitalizations/Surgeries:
- Allergies and Immunizations:
- Gynecological/Genitourinary:
- Medications:

Family History:

Social History:

Sexual History:

Review of Systems:

Physical Exam: Documentation of the following pertinent positives and negatives would be considered a complete focused exam for this OSCE case.

- General Appearance:
- Head/Eyes/Ears/Nose/Throat:
- Neck:
- Lymph Nodes:
- Breast:

- Lungs:
- Heart:
- Abdomen:
- Pelvic/GU:
- Musculoskeletal:
- Back:
- Extremities:
- Neurologic:

Differential Diagnoses: The diagnoses should be considered consistent with the history and physical exam. The rationale for each diagnosis should be included and used to give students formative feedback.

Workup/Plan: The following workup should be consistent with the differential diagnoses in this OSCE case. The rationale for each proposed workup should be included and used to give students formative feedback.

Appendix 3: Sample Application Form

University Name
Standardized Patient Program Application
Address
City/State/Zip Code
Phone No.

Standardized Patient Program Date:_____

Some of the questions on this application may appear to be an invasion of your privacy at first glance, but the answers are needed to determine whether your characteristics match the role(s) we are recruiting.

Name_____Sex M F

Address_____

City_____ State_____ Zip_____

Telephone: (W) ( ) _____ (H) ( ) _____Cell ( )_____

Email Address:_____

Date of Birth _____/_____/_____ Height ___ ft. ___ in. Weight ____ lbs.

Soc.Sec.No._____/_____/_____Occupation_____

Means of Transportation (own car, public transportation) _____

College/University/Specialized Job Training_____

Previous Health and/or Medical Training (be specific) _____
_____

Experience with medical terminology? If yes, please explain_____
_____

Are there illnesses for which you have been or are being treated? For example, are you taking medications which could alter your heart rate or lower your blood pressure during a physical examination (this is perfectly acceptable, we just need to know ahead of time).
_____

Have you ever had surgery? (If so, please give brief details)_____
_____

Do you have scars? If so, where? _____

Do you have any other physical findings (i.e., cataract, heart murmur, arthritic changes in fingers, etc)?
_____

Do you have any allergies? _____

Smoking History _____

As part of your role, it may be necessary for you to undergo a physical exam by a medical student, as you would have routinely in a doctor's office. (You would never be expected to undergo a genital or rectal exam.) Is a partial physical exam acceptable to you? _____ If not, what part of your anatomy would you feel uncomfortable having examined?

_____

Hobbies/Recreation_____

Community Involvement_____

Teaching Experience? (Be specific_____

Acting experience? _____

How did you hear about this program? _____

Have you ever worked as a standardized patient anywhere else? If so, where?

_____

If yes, what roles have you done in other programs (ex.: headache history, irritable bowel with physical exam) _____

_____

What particular skills, experience or knowledge would you bring to this program?

_____

What would you hope to gain from working in this program?

_____

Approximately how many hours/week are you available to work? _____

Are you available mornings? Please indicate days of the week, and be specific about hours.

_____

Are you available afternoons? Please indicate days of the week, and be specific about hours.

_____

Have you ever been convicted of a felony? _____Yes _____No

Appendix 4: Sample Exam Room Checklist

_____ Facial tissue

_____ Latex gloves

_____ Cotton balls

_____ Band-aids

_____ Tongue depressors

_____ Tipped applicators

_____ Face masks

_____ Reflex hammer

_____ Hand sanitizer/Soap

_____ Gown

_____ Shorts

_____ Robe

_____ Blood pressure cuff

_____ Ophthalmoscope/Otoscope

_____ Sheet for draping

Appendix 5: Sample List of Event Supplies

- Food and beverages
- Computers
  - For patients to enter evaluation checklists
  - For students to type and submit their notes
- Volunteer information packets
- Signs
  - Directions for volunteers and patients
  - Directions for students
- Televisions with VCR capability
- Video tapes
- Video cameras and microphones
- Orientation instructions
- Schedules
  - Volunteer
  - Student
- Two-way radios
- Student name cards –
  - Given to the patient by student upon entering the encounter to ensure the evaluation is entered on the correct student.

Appendix 6: Sample OSCE Checklist

____ Determine/develop cases to be used.

____ Schedule patients and students.

____ Recruit volunteers.

____ Enter appropriate case and student information into simulation software.
Simulation centers may use a software system designed to run/track/analyze information for OSCE events. B-Line Medical is one company who offers a comprehensive software package.

____ Create student sign-in sheets.

____ Create patient log sheets (SP or clinical).

____ Notify video production company.

____ Notify campus operations/security of event dates and times.

____ Test computers.

____ Order food and beverages.

____ Copy student instruction sheets with station scenario and place on the doors.

____ Copy patient checklists.

____ Train standardized patients.

____ Train volunteers.

____ Verify accuracy of cases in software system.

____ Order supplies.

____ Remind patients, assessors and students (one to two days prior to the examination).

____ Set up rooms and equipment.

Evaluation, Assessment, and Grading

The clerkship administrator, in conjunction with the school of medicine and clerkship faculty, manages the evaluation and assessment process for all students in the clerkship.

This process involves oversight of the examination procedure, evaluation forms, portfolios, and other assessment measurements. Evaluation is used in the clerkship as a measurement tool to understand what has been learned. Evaluation is product oriented–the value is fixed, such as an end of clerkship examination. Assessment is process oriented. Assessment tools such as portfolios and Objective Structured Clinical Examinations (OSCEs) tell us how learning is proceeding.

Evaluation of Students

Forms

In today's technology-oriented society, it is the trend to manage student evaluations using online evaluation forms rather than a paper format. Online evaluation systems offer advantages over paper systems in speed and ease of distribution, ability to read written comments, automatic tracking, and report functions. Many institutions use one management system for undergraduate, residency, and fellowship programs to create master schedules and integrated evaluation systems. Clerkship administrators are encouraged to network with administrators at peer institutions for feedback on their programs. The pros and cons of a paper versus online format are listed in **Table 1**.

Whether a paper or online system is used, timely return of evaluations is crucial. Evaluation forms provide feedback to students throughout the clerkship and allow the clerkship faculty to gauge the learner's knowledge and skills. Evaluation forms are typically standardized across the institution. Many schools use the Accreditation Council for Graduate Medical Education (ACGME) competencies as the basis for the evaluation criteria (1). It is important that the school has written criteria for evaluation and grading of medical students posted on the clerkship website (or in the clerkship syllabus or handbook) so the evaluation process is not a mystery to the student. If using paper evaluations, create a tracking system

Table 1: Paper Versus Online Evaluation Format

	Paper	Online
Pros	• No need for computer access • No need to remember login and password • Flexible • Minimal training required	• Return rate is faster • Easily modified if necessary (dependent upon the program) • Automatic notification system for below threshold performance • Automated reminders to complete • Evaluator comments can be set to "required," comments are longer and more detailed • Allows students to track own performance • Data export capabilities • Data analysis capabilities • Data reporting flexibility
Cons	• More time is required to send, complete and return • Cannot read handwriting • Need system to track completion • More time to transcribe and analyze • Manual reminders by fax • Student does not have quick access to data for feedback	• Need computer access • Need password-protected secure interface, firewalls may be an issue • Scheduling data to generate evaluations may be difficult to get from sites • Can be time consuming, set up required for each academic year, and answering questions from users • Can be difficult to get email addresses for preceptors • Some preceptors do not use email which may necessitate sending a paper evaluation • Training is required to manage the system

to monitor evaluations and send second requests to overdue evaluators. **Table 2** lists some tips for retrieval of paper evaluations; a sample evaluation form can be found in **Appendix 1**.

Table 2: Tips for Retrieval of Paper Evaluations

- Send guidelines to the site outlining which forms must be completed, when, and by whom.
- Include a stamped, self-addressed envelope.
- Use colors to designate first, second, and third request.
- Hold feedback meetings with the teams. Have them fill out evaluations after verbal feedback.
- Set deadline for completion (within a reasonable time frame). Some schools send initial requests two weeks prior to the end date.
- For chronically non-compliant residents and attendings, email request to fill out evaluation and copy clerkship director, residency director, division head, or head of medical staff.
- Use calendar or other tracking system to chart send date, received, date of second notice, third notice, etc.

Written Comments on Evaluation Form

Narrative comments written by resident and faculty evaluators are one of the most important parts of the evaluation process for the student. The comments should be specific to provide feedback and justify the final recommended grade. All comments should be focused on behaviors and performance as it relates to the desired competency. The reporter-interpreter-manager-expert educator (RIME) scheme described by Louis N. Pangaro, MD, is an assessment tool used by many medical schools (2). A specific comment using the RIME scale to provide feedback follows:

> "Jane has very good knowledge and gathered data well. Her reporting was superior and she participated very actively in patient care, often going well beyond the call to facilitate communication between her team, consultants, and her patients. She facilitated management under very complicated circumstances."

An example of a comment by a resident documenting a superior rating in the area of physical and mental status examination competency for a third-year medical student:

> "She spends a great deal of time with each of her patients and she is very thorough. One of her patients in particular told me that if it wasn't for ___, he wouldn't have known what was going on. He told me that she sits with him for 30 to 40 minutes explaining studies and results to him."

Attendings and residents who take the time to write specific comments should be recognized for their efforts by sending a praise card or thank you note with a copy to their program director or department chair. On the other hand, residents who neglect to return evaluations should be held accountable by their program. The clerkship administrator can then forward this data to the proper individuals for action to be taken. Evaluations should be reviewed by the clerkship administrator for below average scores or comments. Bring any patterns to the attention of the clerkship director for early intervention.

Data Retrieval and Analysis

To maintain consistency in grading across sites and understand trends in evaluating, the clerkship administrator may need to track and study grade distribution by site, level of evaluator, and the amount of time spent with the student. These statistics are important to determine final grade procedures and guidelines. It is typical for clerkships to compile data and review policies each spring for the next academic year as any changes made to grade policies should be effective for the entire academic year. The administrator must have a thorough understanding of the methodologies used to calculate final grades as they are the first contact for questions from students, residents, faculty, and staff regarding evaluation and the final grade. An understanding of spreadsheet formulas will assist with reports and data collection.

Examinations

National Board of Medical Examiners Subject Examination

The National Board of Medicine Examiners (NBME) Subject Examination is one tool used to measure the cognitive knowledge of medical students at the close of a course or clerkship. Test questions used in the NBME subject examination are developed and reviewed by committees of

competent experts and are owned and copyrighted by NBME. The examination is designed to provide schools with useful performance data that can be compared to a large, representative group of test takers at the same stage of training. The examination is utilized by most medical schools in the United States and Canada. NBME designates an executive chief proctor (ECP) at each medical school who has overall institutional responsibility for the administration of NBME examinations at the school, including security. Examinations can be requested by the ECP, their designee, or chief proctor (CP) through a web-based ordering system. Examinations may be ordered at various times through the year, keeping in mind that there are large penalty fees for ordering too close to exam dates. Examinations are paid for by various means (via institution, department), so funds should be budgeted each year to cover this expense. The chief proctor can select additional proctors for test administration.

All proctors must follow the specific rules and regulations for examination administration outlined in the chief proctor's manual provided with NBME test materials (3). The chief proctor's manual should be reviewed prior to test administration. Use of subject examinations may be discontinued by NBME if there is any indication that rules and regulations are not followed or there is a security breach. The chief proctor is required to follow specific, detailed instructions for administering NBME examinations. The instructions also outline general test administration information, such as testing room arrangements, seating plans, time allowance for the examination, proctor/test taker ratios, and time allowance for the return of the examination to NBME. Once the test books are returned to NBME, the examination is scored and the results returned to the chief proctor (or designee) with a score interpretation guide approximately two weeks after the examination. Statistics showing how the school ranks nationally are also provided.

In-House Examination

If the school chooses not to use the NBME subject examination, a multiple choice test, oral exam, or computerized patient management problems may be used as assessment tools. Managing an exam requires faculty to write test questions, acquire scoring technology, and provide technical assistance if using web-based examinations. Writing an examination provides flexibility to test to the curriculum, revise questions, and use new methods of testing, such as clinical-based patient management problems in which students work through cases much like a real clinical scenario. Issues to be aware of include security, clear instructions to students and sites regarding exam day procedures, technical assistance onsite the day of the exam, and back-up plans for emergencies, such as inclement weather or server crash.

Special Accommodations

All medical schools are supportive of students who qualify for reasonable accommodations under the Americans with Disabilities Act (ADA). Each school has developed a set of standards required of all graduates. For students who may be seeking accommodations for psychiatric, physical, or learning disabilities, guidelines are usually set forth by the school's office of student affairs (varies among medical schools) or the academic development office. Check with the dean's office for specifics.

Students with registered learning disabilities must be accommodated to the best of the clerkships' ability. The clerkship will receive a letter or notice from the student affairs office indicating that a student is registered with a learning disability. The student is instructed to contact the clerkship director or administrator to discuss the aid required, such as a private room, time and a half, or double time on the examination. A letter from the office of student affairs will identify the required accommodation (see **Appendix 2** for sample letter). If the student neglects to inform the clerkship of the registered disability prior to the examination, the clerkship is asked to make its best effort to assist. It is important to maintain student confidentiality. For a student who needs extra time, have the student complete the exam with the class and when the time is up, have the student report directly to the office to complete the exam in a private area for the extra time allotted. If this accommodation is not feasible due to testing arrangements, find a private space for the student to take the exam. Students appreciate the effort and it helps the student's self-esteem while maintaining confidentiality.

Final Grade Assessment

Assessment tools are used to assist in making decisions about the performance of students and to provide information to the clerkship administration about the teaching/learning process with the aim of improving learning. Some assessment tools will contribute to the final grade, such as clinical teaching evaluation forms, while other tools can be used to access knowledge and proficiency. Methods to determine the final grade vary from medical school to medical school. However, some general guiding principles provide a framework for the final grade process.

- Assessment practices should be fair and equitable for all students.
- Assessments are based on the school's policies and curriculum guidelines.
- Assessments are clear, accurate, and timely.
- Assessments policies and guidelines are made available to the students and all faculty members involved.

Below are examples of two methods used to compile final grades. The first discusses use of a grade committee while the second describes a weighted percentage system.

Grade Committee

Clerkships with multiple sites can benefit from a grade committee to assign final grades (4). Use of a grade committee helps to maintain consistency of grades across sites; keeps physician site directors in the loop on clerkship matters; and allows for discussion of stellar student performance as well as struggling students, professionalism issues, and review of clerkship evaluations. The members of the grade committee may be the clerkship directors, administrators, site directors, and chief medical residents. The committee is presented with a grade sheet listing clinical grade (average of clinical performance evaluations), exam score, and recommended final grade. The committee upholds the final grade as computed or invites the student for discussion. Particular attention is paid to students with below average examination scores or clinical evaluations. Sharing the students' story is an important part of the grade committee. This larger perspective is important in evaluating the total student performance in a geographically separated clerkship. The administrator takes notes during the meeting and follows up on all requests. Following the grade meeting, the administrator finalizes the grades, mails grades to students, sets up appointments with the students and clerkship director if requested by the committee, facilitates communication to the student affairs office, answers student questions, and reminds the clerkship director of correspondence or calls.

Accurate record keeping is crucial. Follow the school's records retention policy for archiving examinations, clinical teaching evaluations, and other assignments. Keep grade sheets organized for computing statistics on final grade by site, level of evaluator, and academic year to refine the final grade assessment process.

Weighted Percentage System

A weighted percentage system assigns a value to each component of the clerkship and tallies the values for a final score and then grade. The final grade worksheet is compiled by the clerkship administrator for the clerkship director(s). **Table 2** describes several factors which could determine the final grade.

Table 2: Sample Final Grade Breakdown

CLINICAL EVALUATION SCORES			NBME EXAM	OTHER ASSIGNMENTS
SITE DIRECTOR (.30)	ATT 1 (.15)	ATT 2 (.15)	SCORE	SCORE
OVERALL CLERKSHIP SCORE			FINAL CLERKSHIP	
CLIN (.60) + EXAM(.30) + Other(.10)			GRADE	

The site director's score accounts for 30% of the grade and takes into account the resident evaluations of the student. The two attending scores count for 15% each and stand by themselves. The evaluations account for 60% of the final grade.

The NBME clerkship exam accounts for 30% of the final grade. The assignment component makes up the final 10% of the grade. Examples of assignments include completion of online patient logs, evaluation of interactions with non-physician staff and practice-based learning logs, completing evaluations of their teams and the site, and completing clinical examination. In the example, all the factors are calculated into an overall total score that determines the final grade.

Once the final grade has been calculated, the overall grade sheet is presented to the proper authorities for signatures. In this case, it is the clerkship director and the chair of the department. **Appendix 3** is an example of an overall grade sheet.

Examination Failure

Policy regarding examination failure will vary from school to school. The student should be notified formally of the failure by the clerkship director.

Students who fail the NBME subject or in-house examinations may be required to retake the examination. Schools that provide in-house examinations have more flexibility as to how quickly retesting occurs. The grade consequences and remediation required for multiple examination failures should be included in the clerkship handbook or posted on the clerkship website. Specific remediation plans and the retest examination dates are often determined by the clerkship director or dean's office after taking into consideration the student's upcoming schedule and available study time. Many schools have deadlines for retest examinations. If possible, the student should have time off from clinical duties prior to the retake of the exam to study.

Clerkship Failure

If the student's performance is found to be in the failure range or a major professionalism breach occurs, the administrator's role is to make sure appropriate individuals are notified as mandated by the school to formulate a remediation plan. This situation can be stressful and the student is often under duress. It is very important that the administrator understand clerkship policy and not release grades or information to the student or student affairs office prior to personal contact with the student regarding the failure. Find a time when the clerkship director is in the office and available to speak to the student directly. Avoid sending a potentially upsetting email or voice mail to the student on Friday afternoon. By the time the final grade is compiled, there should be comprehensive documentation regarding cognitive deficiencies, or unprofessionalism issues. Verbal and written meetings between the clerkship director and student outlining student feedback about poor performance should be documented, including copies of certified letters mailed to the student. Failure of objective structured clinical examinations or other assessments may occur late in the clerkship, but documentation should still be present. Please see Chapter 4 "Student Advocacy and Support," for more information on feedback.

In some cases, the student is asked to repeat some portion of the clerkship or the final examination. If a student is retaking the clerkship, a specific remediation plan should be created and put in writing for the student. Assigning the student to a site different from the previous rotation will offer a fresh start. A clerkship failure and retest results in a final grade of failure should be noted on the transcript with the second (hopefully, passing) grade. Two clerkship failures may result in academic probation (5).

Clerkship Evaluation

Clerkship evaluation by the students is an important tool to strengthen teaching programs. It is important to learn what is working and what is not. Clerkship evaluations are generally common across departments so the school can evaluate teaching performance by department. Become familiar with these statistics and student comments so suggestions can be made on curricular or organizational improvements for the clerkship. If students are unhappy with the orientation, make suggestions for improvement. Find out what students want: perhaps online patient record systems training or workshops on order writing and documentation. If a trend emerges in evaluation comments, bring it to the attention of the clerkship director. Changes in clerkship policy are best made in spring with implementation during the next academic year.

Conclusion

Managing the evaluation and assessment of student learners is one of the most important roles of the clerkship administrator. Being highly organized and proactive in gathering data will create a framework for success.

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Appendix 1: Clerkship Evaluation

Student Name _____

Evaluation of Student Performance in Clinical Curriculum

Student ID number_____
Clerkship Name_____
Site Name_____
Clerkship Dates _____

Based on your contact with the student, please indicate the level of evaluation that best fits the student's performance.

Knowledge of Subject: Includes level of knowledge and application to clinical problems.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Does not demonstrate understanding of basic principles.	Demonstrates understanding of some basic principles but cannot extrapolate to specific patient problems.	Demonstrates adequate understanding of basic concepts. Can apply knowledge to most common patient problems.	Demonstrates clear understanding of a broad range of basic concepts. Can apply these to almost all aspects of patient care.	Demonstrates mastery of common conditions and some uncommon conditions. A resource for others.	
Data-Gathering Skills: Includes basic history and physical examination.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Does not obtain key information and findings.	Has difficulty gathering all the data or is easily sidetracked or has difficulty prioritizing.	History and physicals are organized and complete enough to make an assessment of major problems.	History and physicals are organized and complete and identify and assess all major and most minor problems.	History and physicals are complete, organized, and efficiently assess all major and minor problems.	
Clinical Reporting Skills: Includes oral case presentations, written or dictated notes, histories, and physical exams.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Unable to communicate major points of medical database explaining patient's story.	Occasional problems with organization, chronology, or details of findings that make the story difficult to interpret.	Complete and organized presentations that identify and describe all major problems.	Complete and organized presentations that identify and describe all major and most minor problems.	Complete, concise, organized, and clear written and oral presentations.	
Procedural Skills: Includes knowledge, preparation, performance and attention to patient comfort and dignity.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Poor preparation. Poor attention to patient comfort or modesty. Poor motor skills.	Incomplete preparation, attention to patient, or motor skills result in inadequate performance of task.	Always prepared. Attentive to patient comfort and concerns. Adequate motor skills.	Always prepared. Provides for patient's concerns, comfort and dignity. Good motor skills.	In addition to previous criteria, plans ahead for potential problems. Excellent motor skills.	
Interpretation Skills: Includes problem-solving skills, ability to use data from patient interview, physical examination, and ancillary tests to identify major and minor patient problems in an organized and efficient manner.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Does not consistently identify major patient problems and issues.	Identifies most major problems and issues but unable to prioritize between problems.	Consistently and independently identifies and prioritizes major problems.	Identifies and prioritizes all major and most minor patient problems and issues.	Can identify and prioritize all major and minor problems in an organized and efficient manner.	

Management Skills: Includes order writing, initiative, practicality, and independence.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
No attempts at independent management plans. All decisions deferred to others.	Offers a plan some of the time. Management plans are often not realistic.	Offers management plans about half the time that are logical and realistic.	Offers plans more than half of the time. Plans are helpful to the team's management of the patient.	Can independently manage most of the time. Plans are well focused and on target.	
Communication Skills with Patients, Families, Colleagues, and Staff. Includes ability to modify communication style.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Lacks important skills to communicate effectively. Abrupt, unclear, rambling, unfocused. Concern of dishonesty.	Has difficulty communicating information or treatment plans to patients, families, or colleagues. Sometimes rambling or unfocused.	Can communicate necessary and important information in most situations. Has emerging awareness to modify communication style and content to situation.	Communicates necessary and important information to patients, families, and colleagues. Can modify communication style to needs of situation or individuals.	Consistently effective in communication with all individuals. Is aware of the needs and interests of those receiving information. Honest in dealings with patients and colleagues; never misrepresents self or level of skills.	
Relationships with Patients and Families: Includes courtesy, empathy, respect, and compassion.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Disrespectful, indifferent, callous, discourteous or condescending. Inappropriate boundaries.	Occasional difficulty showing respect and empathy. Sometimes insensitive.	Usually demonstrates respect, empathy, and concern.	Consistently demonstrates respect, empathy, and concern. Seeks to understand the patient's perspective.	Always shows respect, concern, and sensitivity even when patient's values conflict with own. Encourages collaboration in negotiating treatment plans.	
Professional Relationships: Ability to work collaboratively with team members; courteous and cooperative attitude.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Unable to work cooperatively with faculty or staff.	Has some difficulty establishing appropriate relationships. Works around rather than with staff.	Collaborates with entire team. Recognizes roles of team members.	Collaborates effectively with entire team. Recognizes and respects roles of team members.	Collaborates well with entire team. Seeks feedback from team on performance. Respects and is respected by the team.	
Educational Attitudes: Includes active participation in learning and responsiveness to feedback.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*
Observes but rarely participates; never volunteers. Shows little interest in work. Argumentative or hostile with feedback. Values self above others, sense of entitlement	Minimal participation in open discussions. Needs to be pushed to perform. Little initiative.	Attentive, does what is required. Actively engaged in learning. Willing to change behavior appropriately based on feedback.	Seeks additional learning opportunities beyond required level. Often volunteers and stimulates others in discussion. Seeks additional patient care responsibilities. Requests feedback routinely.	Actively participates in all activities. Actively seeks feedback and responds. Initiates self-assessment and teaches others. Asks insightful questions, motivates others, and is an active leader.	
Dependability and Responsibility: Includes attendance and preparation.					
Unacceptable 1	*Below Expectations* 2	*Expected to Above* 3	*Exceeds Expectations* 4	*Exceptional* 5	*NA*

Absent without an excuse. Frequently late without a legitimate reason. Erratic or unpredictable behavior. Not prepared. Doesn't follow through. Not trustworthy. Not reliable.	Performs minimum amount of patient care. Occasionally fails to follow through.	Prompt, rarely late without a legitimate excuse and notification. Adequately prepared. Consistently completes patient care responsibilities and follows through. Reliable.	On time and prepared for required and optional activities. Volunteers additional effort for patient care.	Always on time and prepared. Anticipates additional educational opportunities and plans for them. Trustworthy team member.	

Evaluator Concern: Check if there is a concern in either or both of the areas noted below:

_____ Clinical Performance

_____ Professional Behavior or Conduct

Describe area(s) of concern and contact departmental site or clerkship director.

Required Feedback Comments: Provide descriptive feedback for student on strengths and areas needing improvement. (Not for use in the Dean's MSPE unless there is a pattern across clerkships.)

Required Overall Performance Comments: Provide summary of your observations of the student's performance based on the clerkship's objectives in all areas of evaluation. (Comments for use in the Dean's MSPE.)

YOUR LEVEL of TRAINING

____ Faculty
____ Fellow
____ Resident
____ Other

TIME SPENT WITH STUDENT:

____ Little or no contact

____ Sporadic and superficial contact

____ Infrequent but in-depth contact

____ Frequent and in-depth contact

RECOMMENDED OVERALL LEVEL OF EVALUATION:

____ Unacceptable Performance (Fail)

____ Reporter ≤ 75% of the time (Marginal)

____ Reporter ≥ 75% of the time (Pass)

____ Interpreter ≥ 75% of the time (High Pass)

____ Manager ≥ 75% of the time (Honors)

Evaluator's Name: _____Evaluator's Signature: _____Date: _____

Date of evaluation/feedback to student: _____

Appendix 2: Special Accomodations Memorandum Attachment

To: Clerkship Director, Administrator
From: (Individual Sending Memo)
Office of Academic Support
Date:
Re: Academic Accommodation for (Student Name)

Please be aware that (student name) has provided documentation verifying a disability that qualifies (student name) for the following temporary academic accommodations:

- Extended time for examinations

PLEASE NOTE THAT THE ABOVE ACCOMMODATIONS ARE APPROVED FOR THE TIME PERIOD OF (DATES) ONLY. (STUDENT NAME) MUST RENEW APPROVAL FOR ACCOMMODATIONS AT THE START OF EACH ACADEMIC YEAR.

(Student Name) has been notified that it is their responsibility to:

- Notify you of accommodation needs upon beginning your course or clerkship (or as soon as he/she receives approval for the accommodation).
- Contact you again to make specific arrangements for accommodations at least two weeks prior to desired implementation e.g., an exam (or as soon as he/she receives approval for the accommodation).

Please be advised that, as a University, we have specific responsibilities to provide the approved accommodation to each student as indicated. No other accommodation can be provided without full approval and each accommodation approved must be implemented with the appropriate requests from the student. Should you have questions or concerns for which I can be of assistance, please feel free to contact me at (phone number or extension).

cc: Student File
Office of Student Affairs
Student

Appendix 3: Final Clerkship Grade Report

Student:

Clerkship: Medicine **Rotation:**

Site: **Site Director:**

STUDENT'S FINAL CLERKSHIP GRADE (circle/shade one):				
A	**B**	**C**	**F**	**Incomplete**

End of Clerkship Written Performance (30 % of Final Grade)**:**

Academic Quarter: **Raw Score:** **Percentile:**

If NMBE exam, also report national mean: **Standard Deviation:**

Clinical Performance: (60% of final grade)

Indicate final rating in each category for the clerkship

Competency	**Inadequate/ Failing**	**Adequate**	**Good**	**Outstanding**
I. Medical and Scientific Knowledge				
II. Patient Care and Prevention				
III. Professionalism and Self Awareness				
IV. Practice-Based, Life-Long Learning				
V. Systems Based, Inter-Professional Practice				
VI. Interpersonal and Communication Skills				

Other Clerkship Specific Activities	**Percent of Final Grade**	**Raw Score**
Clinical Experience (max. 50)	**60**	
Other (max. 45) **	**10**	
Overall T-Score		**T=**

Clerkship Director's Summary Comments: Comment on ***level of initiative, enthusiasm, ability to self start, professional attributes*** *(compassion; honesty and integrity; respect for others including other members of the health care team, peers and faculty; ability to act as an advocate for patients; communication skills),* ***areas of strengths and any areas of improvement.***

SD – (MID) (FINAL)
ATT –
ATT –
RES –
RES -.
RES –
RES –
RES –
RES –.

Signed by:

Clerkship Director (print)	**Signature**

Approved by:

Department Chair (print)	**Signature**

Residency Process

The medical student clerkship administrator has a key role in the residency application process. Clerkship administrators get to know students well, perhaps better than anyone else in the department. Do not underestimate the administrator's role in influencing students in their career choices. Career and residency selection is a complex process and is greatly influenced by the people and atmosphere that students experience during their clerkships.

This chapter will provide an overview of the residency application process, timeline, social events, letters of recommendation, and Match Day.

Residency Application Process Overview

Providing support to the medical students is critical during the residency application process. Students are anxious and often confused about the entire procedure. Being a good resource eases students into the process. The clerkship director and administrator can provide resources to students to help guide them through the residency application process.

- **Timeline**: Be aware of when students need to submit Electronic Residency Application Service (ERAS), as well as letters of recommendation (LORs), medical student performance evaluation (e.g., dean's letter), and US Medical Licensing Examination (USMLE) scores to the residency programs. **Table 1** is a student timeline for applying to residencies with a spring match date.
- **What to expect**: Answer common student questions regarding the process .
- **Web links**: Provide different supporting websites for information regarding the application guidelines.
- **Reference materials**: Include evaluations from former students on their residency programs and tips for students by students.
- **Faculty/mentors**: Meet with the assigned faculty advisor for advising and career planning; discussions could include where to apply and how to rank the programs the students are considering.

Table 1: Timeline for Students Applying to Internships and Residencies that Match in Spring

Month	Activity
February–May	Attend residency application informational meetings and forums hosted by the school of medicine and departments.
June and July	Research programs based on a myriad of factors including geographical preference, size, and type of program; university-based versus community-based institutions; significant other preferences/concerns; and program outcomes regarding fellowship placement. Most programs now have websites where students can find this information. Also use reference materials in the school of medicine and department to review sample personal statements and curricula vitae (CVs).
	Meet with department advisor.
	Begin drafts of personal statement and CV. Meet with school writing center faculty for editorial assistance.
	Identify and contact letter writers. Most programs will ask for two to three personal letters of recommendation. Some will require a chair/department letter. Choose two to three attendings from your third-year clerkship, sub-internship, or subspecialty elective. If interested in research, ask your research sponsor for a letter. Ask faculty members who know you well and will write a good letter as opposed to a "big name." If a copy of the evaluation your attending completed would be helpful, refer them to the department.
	Take care of any paperwork required by the school of medicine such as releasing academic files to letter writers.
	Review ERAS requirements and attend information meetings hosted by the school of medicine.
August	Schedule an appointment to meet with the appropriate faculty member for the chair/department letter. The department may request to see a list of potential programs, a CV, and personal statement.

	Finalize personal statement and CV.
	Follow up letters of recommendation.
September - October	Submit ERAS application and track letters of recommendation.
	Respond to programs to schedule interviews.
November	Dean's letter is scanned and sent to programs on November 1.
	Respond to programs to schedule interviews.
Late November/ December	Interview season. It is wise to schedule four to eight weeks off or lighter clerkships if possible.
Late December	Application deadline.
January– February	Meet with department advisor for questions regarding final rank list.
February	Rank list is certified.
March	Match Day!

- **Sample guides**: Help create a curriculum vitae (CV) and personal statement.
- **How to interview for an internship**: Cover what to say, what not to say, and how to dress for the interview.
- **Support groups**: Conduct a practice interview and share information about the application process and interview trail.

The residency application advising process will vary from school to school. Some institutions have school-sponsored residency application forums, career advisors, and writing centers to assist with writing CVs and personal statements. No matter what avenue employed by the school, it is important for the administrator to be educated about providing assistance to students and clerkship directors. The office of medical education is a good resource.

Students should be encouraged to start the application process early in their medical school training. It is imperative to follow the established guidelines for residency application that the school or department has in place.

Identifying Students Interested in Your Specialty as a Career

Below are some suggested social events orchestrated by the department for students. These activities can be varied throughout the year, but the key is to create a comfortable, open atmosphere in which faculty, residents, and senior students can discuss the process that led them to choose the specialty. These engagements give students a chance to interact with key personnel, including the chair of the department, and to ask questions on an informal basis.

Student Interest Dinner

Held in winter or spring of the junior year, this dinner is for students who are fairly certain they are interested in the specialty. The department chair, residency director(s), clerkship director, fourth year sub-internship director (if a separate position at the institution) and clerkship and residency administrators should be invited.

A speaker should be identified to give a 15 to 20 minute presentation on how he or she made the decision to pursue this career. Make certain to choose dynamic individuals. The speakers can come from any of the many career pathways including teaching, research, hospitalists, and a variety of subspecialties.

Following the main speaker, schedule two to three additional speakers, such as residents, to present the brief (five to 10 minutes) presentations on their personal career decision-making process. To close the evening, have a panel discussion to allow the students to ask questions.

Pre-Interview Season Dinner

In early fall, around mid-October, just prior to the start of the residency interview season, schedule a dinner meeting for students beginning the interview process. Invite the same guests from the student interest dinner. This meeting is not a recruitment event for the residency program, but an informal, low-key evening for students.

Funding for these events is always a concern. Be creative! Consider if the department, student interest group, residency program, or other professional organizations are willing to help cover some of these costs. Do not hesitate to solicit assistance from these resources. Brainstorm with the residency coordinator and other contacts within the institution regarding possible funding. If a complete dinner is not possible, perhaps a wine and cheese reception, coffee and dessert, or pizza after-hours event at the medical school may be more within your budget.

Timeline for the Clerkship Administrator

Preparation Prior to the Actual Application Process

Third Year

If students express interest in the career prior to clerkship scheduling, try to schedule these students with the strongest and most capable faculty and residents to act as positive role models. This assignment will not only allow the students a chance to have a positive experience on their clerkship rotation, it will also allow them a chance to obtain quality reference letters from faculty members.

Fourth Year

Clerkship administrators who also serve as the fourth-year student administrator are in a position to advise students which elective clerkships may strengthen their application and when to take such electives. If another individual coordinates these rotations, work with him or her to assist in advising students.

Some schools require all fourth-year students to complete a subinternship in their final year of medical school. Students are given more independence on the service and will improve their ability to problem solve and hone diagnostic skills while increasing their medical knowledge. Students interested in the specialty may register for a subinternship early in their fourth year to strengthen their residency application and procure a letter of recommendation.

November through January, students will interview for residency positions. At this time of year, students ask for time off for interviews. It is advisable that institutions/departments have a policy concerning allowed time off for the interview process to prevent disruption to patient care. Some students may schedule their vacation or "lighter" elective rotations that may have less demanding schedules. The clerkship administrator may want to know which rotations may be interview-friendly choices in the event students ask for advice.

February: Students finalize their Match list for their program preferences. They may come with questions and requests to meet with faculty to help them finalize their selections. Residency programs also finalize their list during this same time period. Both applicant and program lists must be certified by the end of February when ERAS closes until Match Day. After the list is certified at the end of February, the process is over and the wait for Match Day begins.

Match Day

Match Day is in mid-March. The four-day match process begins with notification to students and programs that failed to match. These students are assisted by the office of medical education to "scramble" to fill an open position.

On the fourth and final day, Match Day, at 12:00 p.m. EST, students are handed envelopes that contain the name of the program where they matched for their residency training. The residency program is also informed at this date and time of the actual names of the students who matched into their program – the students who will be interns in their training programs beginning in late June or early July. This time can be exciting yet stressful for students as they find out where they will spend the next years of their medical education.

Students are often thankful for help in this application process, so be sure to attend the Match Day celebration, which is an exciting event.

Letters of Recommendation

Collecting Letters

Students are required to submit letters of recommendation to the residency programs of their choice via ERAS. For some disciplines, a department or chair's letter is required. This letter is written by the chair, clerkship director, or other appointed faculty advisor. This formal letter summarizes the student's third-year medicine experience. Two or three additional letters are generated by physicians with whom the students have had a good relationship during the third-year clerkship, fourth-year subinternship, or elective rotation. Authorization for Family Educational Rights and Privacy Act (FERPA) release (**Appendix 1**), Authorization for Release of Information (**Appendix 2**), student personal statement, and a copy of the student's CV (**Appendix 3**) will aid in the letter writing process.

Collecting letters in a timely manner is crucial to the residency application process. Clerkship administrators may assist the students with the letter collection or directly collect the letters. The administrators are essential in identifying and locating key personnel for the students.

Once the letters of recommendation have been received and are in compliance with the ERAS guidelines, the student should be directed to the medical school dean's office for electronic processing of their letters.

Bridging Relationships

Efficient and effective clerkship administrators who are able to assist students through the residency application process must make it a priority to know and develop good relationships with the people available to assist students. These relationships include but may not be limited to the department chair, residency director/associate director, vice chair for medical education, interest group faculty advisor, and residency and student administrators.

Residency Program

A good working relationship between the student and residency program offices is critical for the success of both programs. Although duties may vary, a friendly environment helps both areas and the department. If the relationship is not ideal, the clerkship administrator should take steps to promote a good working relationship. Schedule an appointment to discuss ways to work together, and make an effort to understand each other's basic responsibilities and roles in the department. Look at how the relationship might be molded to help students interested in pursuing a residency in the specialty.

Visiting Students

One reason a student may visit from another medical school to participate on a clerkship is to get an in-depth look at the hospital as well as the residency program. Cultivating the relationship between the visiting student and the clerkship office is the first step in attracting individuals to the department's residency program. It also affords an opportunity to look at this student ahead of time and to provide the residency director and administrator with information concerning the student. The residency director may offer to meet with visiting students interested in the program, thus saving the student a second trip. Residency administrators might be able to identify residents from the same institution for the visiting student to meet. Always check with the residency administrator before arranging a meeting.

Fourth-Year Elective Clerkship Program

Another important relationship is with the fourth-year student administrator. In many institutions, the clerkship administrator may also assume this role. If another individual coordinates the fourth-year required and elective courses, it is important to cultivate a relationship with this individual.

Office of Medical Education

A strong working relationship with the office of medical education (sometimes referred to as student affairs or other such designations depending on the institution) is beneficial for a clerkship administrator. This office is where students obtain their medical student performance evaluation as well as where their additional letters of reference will be collected for distribution to ERAS.

Mentors

Many institutions identify an individual to assist students who are interested in exploring the

possibilities of a career in the specialty. It is important to know who the mentor is and develop a good working relationship with them so students may be easily and effectively guided through the application process. If no such person has been identified, this lack should be discussed with the clerkship director or department chair to establish a system to carry out this important function.

Celebrations

Although at times this work seems daunting, seeing the excitement in the student's eyes on Match Day when he or she opens the envelope is rewarding enough.

Before graduation, make sure to get email addresses from those students getting ready to leave so they can help the next group. New applicants can speak directly to those new residents when they start to interview. Your job has just become easier.

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Appendix 1: Waiver of Right to Inspect and Review Records Persuant to the Family Education Rights and Privacy Act of 1974, As Amended

I have requested Dr. _____ to write a letter or statement concerning me to Residency Program Directors as part of my application for a residency.

I have hereby waived my right under the Family Education Rights and Privacy Act of 1974, as mended, to inspect and review such letter or statement. I certify that this waiver is given voluntarily by me.

_____ _____

(date) (student's signature)

_____

(student's name – please print)

Appendix 2: Authorization for Release of Information

I hereby authorize the Chairman of the or their designate to obtain my evaluations for courses taken within the Department, the cumulative score of Part I of the National Board Examination, also Part II if available, and grades of clinical clerkships other than medicine.

Date _____ Signed _____

Print Name _____

Appendix 3: Sample CV

Name and Address Here

EDUCATION

2001-2005	M.D., Medical School
1997-2000	B.A., University Major: Biological Sciences

ACTIVITIES

Medical School

2001-2005	Medical Student Association Representative Community Service Co-chair
2002-2004	Medical Student Association Treasurer

Undergraduate

1998-2000	Residence Hall Coordinator, Office of Residential Life
1998-1991	Resident Assistant
1999, 2000	Special Olympics Volunteer, Event Co-chair

HONORS/AWARDS

2005	Fourth Year Medicine Honors Subinternship
2002, 2003	Medical Student Leadership and Service Award
2003	Doctors Ought to Care Recognition Award
2000	Phi Beta Kappa National Honor Society
2001-2005	Dean's List, 9 quarters
1999	Kappa Alpha Pi Honor Society
1997	Phi Eta Sigma Honor Society

RESEARCH

2004	Comprehensive Cancer Center research project. .
2002-2005	Videofluoroscopic analysis of dysphagia in brainstem CVA patients. .

PERSONAL DATA

Date of birth:

Marital status:

Interests: Running, canoeing, camping, travel, reading, history

Career Development for the Clerkship Administrator

Many clerkship administrators do not have formal training in leadership and management. Clerkship administrators may have risen through the ranks; come to medical education from other non-medical fields; or progress through master's programs in education, public health, or health care administration. Job descriptions vary widely as do salary and education levels. What clerkship administrators do have in common are skills in organization, communication, problem solving, and multi-tasking as well as the ability to adapt quickly to changing circumstances. The clerkship administrator is the glue that holds the clerkship together. The administrator closely manages the curricular and administrative tasks of the clerkship as resident teachers and faculty move along the continuum of medical education. The job is a huge one, and the demands grow every year with increased class sizes, ever-more stringent accreditation requirements, and advances in medical education practices. While most clerkship administrators have the technical skills, what is necessary to grow in the position are skills that are not taught.

Setting Goals

"Your goals are the road maps that guide you and show you what is possible for your life."–Les Brown

Goal setting helps "determine priorities, get organized, make big decisions, and realize our dreams" (1). Setting specific and challenging goals for the short and long term has been linked to increased personal and career growth (2). Start by developing a list of short- and long-term goals.

A short-term goal should be accomplished within a day, week, or month. Long-term goals are achieved over a lifetime. Write goals down so they are positive statements.

Review the exercises in **Appendix 1** to identify workplace goals. Authors and project management leaders have used the SMART (3) mnemonic (specific, measurable, achievable, realistic, and time) for many years to assist with goal-setting exercises.

The next step is to develop a plan to achieve each goal. Make sure to establish a timeframe to ensure accountability. Try starting with one personal goal and one work-related goal. Work goals should be something that will benefit the individual and the employer, e.g., learning a new computer program or taking classes in conflict management. Trying to work on all goals simultaneously results in becoming overwhelmed.

The Clerkship Director as Advocate

Discuss work goals with the clerkship director. The goals should be clearly stated and include details such as costs, time involved, and how these actions will both improve individual performance and benefit the clerkship. To encourage growth and give the administrator room to stretch in the position, the clerkship director should act as an advocate when dealing with such issues as titles, salary, and skill development. Ideally, the end result will be a "win-win-win": good for the administrator, good for the clerkship, and good for the clerkship director. If the clerkship director is unavailable (or unwilling) to advocate on behalf of the clerkship administrator due to job turnover—the clerkship director position is unfilled, or newly appointed to the position — the clerkship administrator should look to other venues for support. Many medical schools are combining medical education programs for undergraduate and residency under one umbrella to provide a wider network of support and align position titles. Look to mentors such as associate clerkship directors and residency program directors to provide advice.

It is extremely important for the clerkship director to make time to meet with the clerkship administrator on a regular basis. Concerns arise daily for new and experienced clerkship administrators that require review with the clerkship director. The clerkship director must be available to the clerkship administrator by pager or email in case of emergency. For non-emergent issues, schedule standing meetings as needed. Make sure these meetings are considered important and not often cancelled. If unable to meet in person, speak on the phone to check in. Set an agenda to use time wisely. Use periodic lunches to reconnect.

Developing a Role of Leadership

The clerkship administrator has the opportunity to influence department, school, and even national education policies. Everyone possesses the capacity for leadership, but only individuals who cultivate it will ever become truly effective leaders. Identifying a problem and viewing it as an opportunity for change to better serve others will separate the mediocre from the effective leader. One important point to remember is to stay open-minded and listen to everyone, but also develop a personal leadership style. The uniqueness of the clerkship administrator position offers unlimited satisfaction as long as the clerkship administrator is motivated and interested in expanding expertise and knowledge.

Network

Subscribe to professional organization listservers to make contacts and network. Learn how clerkships are managed at other institutions and incorporate new ideas.

Find a mentor. Colleagues within the clerkship administrators circle of influence are a great starting point to develop a career plan. Ask a respected colleague for advice in goal setting and career planning. Often, mentors will encourage reaching for goals that seem out of grasp.

Be the "Go-To" Person

Work to be known for delivering excellence. Excellence speaks for itself and creates opportunities.

Be a Communicator

Be sure to understand the institution's curricular structure and the established mechanisms (i.e., standing committees) through which clerkships communicate with each other as well as the rules that govern grading and academic standing. Organize meetings with the office of student services, clerkship directors, and clerkship administrators from within the university with one common goal in mind— better communication and work processes. Meet to establish consistent policies and resources. Keep other administrators aware of curricula, evaluation, and procedural changes to plan accordingly.

Start a school-wide clerkship administrator lunch program. Meet informally to discuss new policies, solve problems, and share tips and tools.

Approach change with tact and appropriate verbal communication. Language is an exceedingly powerful tool. Whether oral or written, the method of communication will affect whether the message is received positively or negatively. Impressions are very important and valued especially when an organizational change is being proposed to authority figures.

Remember that the clerkship director, who may often be focused on other clinical activities, will appreciate sharing important information and impressions with the clerkship administrator.

Be Your Own Advocate

Clerkship administrators should advocate for themselves by sharing accomplishments, credentials, and expertise. Do not limit yourself because of shyness or doubt. Consider sharing accomplishments as an opportunity to show potential to individuals who may not be familiar with your skills. Make yourself known in a positive way by serving. Face-to-face meetings with colleagues, committee work for your department, school and hospital, and attending national conferences are important ways to create positive working relationships.

- Keep your curriculum vitae updated and current. Include presentations.
- Use nationally published job descriptions to "benchmark" current responsibilities and inform your plan for career development (For example, see: http://www.im.org/AAIM/Development/CareerDevelopmentForClerkshipAdministrators.html)
- Keep a portfolio of accomplishments.
- Keep thank you notes from department administration, deans, and students to review on a rainy day.

Taking Ownership of the Position and Planning for Success

The unique and diverse responsibilities of a clerkship administrator open many possibilities to institute change. The participation and dedication of the clerkship administrator influences the department's reputation. Guard your integrity and take an interest in the job. The clerkship administrator has an important role within the university and may reasonably be expected to embody the educational portion of a department's mission statement. Take the first steps in ownership of the clerkship.

- Review mission statements and values of the university to assist in the direction of identifying the role of the position.
- Become familiar with the organizational structure while setting goals.
- Become familiar with the academic policies and procedures of the school.
- Build working relationships with constituents (i.e., other clerkship administrators both locally and nationally, office of student services, clerkship directors).
- Make site visits and offer to present at orientations.
- Establish a good reputation and rapport with directors, faculty, fellows, and housestaff..
- Build strong relationships with the medical students and be known as an advocate.
- Always be ready and flexible for change.
- Do not be afraid to delegate, but be prepared to take responsibility for all work delegated.
- Take career development courses/ workshops.
- Become familiar with the clerkship's national organization; consider seeking support to attend the organization's annual meeting, and establish networks with other administrators within the organization.
- Exercise – breathe and enjoy life.

See **Appendix 2** for a summary of Stephen Covey's *The 7 Habits for Managers* (5).

Conclusion

Research has shown that people stay in their jobs for many reasons, but money is not the most significant (4). Feeling part of the work community or team builds connections between personal values and organization goals. When you leave your position, you also leave more than the job, you leave the respect and trust you have built. Having independence, trust, respect, and flexibility are important benefits and must be weighed as heavily as monetary income.

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Appendix 1: Student Programs Workplace Passport

<table>
<tr><td>Defining Strengths
This is the work I'm best at….</td><td>Individual drive or passions
This is what I most love to do….</td><td>Distinguishing values
These are my values....</td></tr>
<tr><td>Visibility
To feel visible, valued, and involved, I need….</td><td>Environment
This is what I need to learn and how in order to do my best...</td><td>Contribution
These are the results I can be counted on to deliver...</td></tr>
<tr><td>Recognition
To feel genuinely respected and recognized, I need….</td><td colspan="2">Your goals for the next six months...

Your goals for the next year….

Where do you vision yourself within the section in the future….

How can I help you to achieve these goals?</td></tr>
<tr><td colspan="3">Additional Comments:</td></tr>
</table>

Appendix 2: Adapted from Steven Covey's *The 7 Habits for Managers: Managing Yourself, Leading Others, Unleashing Potential*

Habit 1 - Be Proactive

- Take personal responsibility for the quality of service in your department/team.
- Target those areas of service that you can influence; do not be paralyzed by the uncontrollable.

Habit 2 - Begin with the End in Mind

- Make the great contribution you are capable of making.
- Start with a vision: What would great customer service look like in your department? How can the clerkship make changes for improvement?
- Share your vision and develop a mission statement for your unit. Put it on your website.

Habit 3 - Put First Things First

- Identify the customer service priorities in your department.
- Focus on what is important, not just urgent.
- Set goals and track progress. Do not procrastinate.

Habit 4 - Think Win-Win

- Always look for solutions that will meet your needs and the customers' needs.
- Look at service as an opportunity for mutual benefit
- Delegate work expectations. Do not be afraid to teach others what you do.

Habit 5 - Seek First to Understand and Then to be Understood

- Emphasize listening skills.
- Develop and implement regular methods of gathering input.
- Always involve the team of changes and redesigns that will impact service.
- Communicate.

Habit 6 - Synergize

- Cultivate your relationship with other departments.
- Constantly seek for something better: Seek out differences, do not just accept them.

Habit 7 - Sharpen the Saw

- Continually seek out ways to improve.
- Treat team members and customers as a "whole person" (i.e., physical, social/emotional, mental, and spiritual).
- Identify your circle of influence. (i.e., what have you always loved doing? What opportunities do you see for growth and development? How can you improve your work environment? What contribution would you love to make in your current role?)

Glossary of Commonly Used Terms and Organizations in Academic Internal Medicine

Acronym	Full Name and URL (if applicable)
1099	1099 Form. Of the forms the IRS supply to record a particular category or payment of receipt, 1099 number is the tax identification number for a supplier. According to IRS rules in the United States, lack of a valid tax identification number may result in tax withholding. Payables store the tax identification for each supplier. Payables also enable one to enter a withholding status for each supplier.
360º Evaluation	360 degree performance appraisal process. This employee appraisal is undertaken by managers with participation by reviewers.
401(k)	401(k) retirement plan. A defined contribution plan offered by a corporation to its employees, which allows employees to set aside tax-deferred income for retirement purposes; and, in some cases, employers will match the contribution dollar-for-dollar. Taking funds before a certain specified age will trigger a penalty tax. The name 401(k) comes from the IRS section describing the program.
403(b)	403(b) retirement plan. Similar to a 401(k), 403(b) is offered by non-profit organizations, such as universities and some charitable organizations, rather than corporations. There are several advantages to 403(b) plans: c ontributions lower taxable income, larger contributions can be made to the account, earnings can grow tax-deferred, and some plans allow loans. Contributions can grow tax-deferred until withdrawal at which time the money is taxed as ordinary income (which is sometimes a disadvantage).
501(c)3	501(c)3 Form. IRS tax exempt status for non-profit organizations.
A&P	Appointments and Promotion. Appointments are the appointment of a person to a faculty or academic position. Promotions are for advancement. A&P committees serve as the review committees.
A/P	Accounts Payable. Money owed to vendors for products and services purchased on credit. This item appears on the balance sheet as a current liability, since the expectation is that the liability will be fulfilled in less than a year. When accounts payable are paid off, it represents a negative cash flow.
A/R	Accounts Receivable. Money that is owed to a company by a customer for products and services provided on credit. A/R is treated as a current asset on a balance sheet. A specific sale is generally only treated as an A/R after the customer is sent an invoice.
A-21	A-21 Circular. Published by OMB, this circular defines the cost principles for determining allowable research costs related to grants, contracts, and other agreements (also known as sponsored research) at educational institutions. www.whitehouse.gov/omb/circulars/a021/a021.html
A-110	A-110 Circular. Published by OMB, this circular defines uniform administrative requirements for agencies issuing federal awards to educational institutions. www.whitehouse.gov/omb/circulars/a110/a110.html
A-122	A-122 Circular. Published by OMB, this circular establishes principles to determine costs of grants, contracts, and other agreements with nonprofit organizations. www.whitehouse.gov/omb/circulars/a122/a122.html
A-133	A-133 Circular. Published by OMB, this circular defines the audit requirements for educational institutions receiving federal awards. www.whitehouse.gov/omb/circulars/a133/a133.html

AA	Administrative Associate.
AAA	American Association of Anatomists. www.anatomy.org
AAAAI	American Academy of Allergy, Asthma & Immunology. www.aaaai.org
AAALAC	Association for Assessment and Accreditation of Laboratory Animal Care International. www.aaalac.org
AACAP	American Academy of Child and Adolescent Psychiatry. www.aacap.org
AACE	American Association of Clinical Endocrinologists. www.aace.com
AACN	American Association of Colleges of Nursing. www.aacn.nche.edu
AACOM	American Association of Colleges of Osteopathic Medicine. www.aacom.org
AACP	American Association of Colleges of Pharmacy. www.aacp.org
AAD	American Academy of Dermatology. www.aad.org/default.htm
AAFP	American Academy of Family Physicians. www.aafp.org/online/en/home.html
AAFPRS	American Academy of Facial Plastic and Reconstructive Surgery. www.facial-plastic-surgery.org
AAGL	American Association of Gynecologic Laparoscopists. www.aagl.org
AAGP	American Association for Geriatric Psychology. www.aagpgpa.org
AAHC	Association of Academic Health Centers. www.ahcnet.org
AAHKS	American Association of Hip and Knee Surgeons. www.aahks.org
AAHP	American Association of Health Plans. www.ahip.org
AAHRPP	Association for the Accreditation of Human Research Protection Programs. www.aahrpp.org
AAI	American Association of Immunologists.
AAIM	Alliance for Academic Internal Medicine. AAIM—the nation's largest academically focused specialty organization—consists of the Association of Professors of Medicine (APM), the Association of Program Directors in Internal Medicine (APDIM), the Association of Specialty Professors (ASP), the Clerkship Directors in Internal Medicine (CDIM), and the Administrators of Internal Medicine (AIM). www.im.org
AAIM	American Academy of Insurance Medicine. www.aaimedicine.org
AAIP	Association of American Indian Physicians. www.aaip.org
AAMA	American Academy of Medical Administrators. www.aameda.org
AAMC	Association of American Medical Colleges. AAMC is a non-profit association founded in 1876 to work for reform in medical education. www.aamc.org
AAMP	Association for Academic Minority Physicians.
AAN	American Academy of Neurology. www.aan.com
AANEM	American Association of Neuromuscular & Electrodiagnostic Medicine. www.aanem.org
AAO	American Academy of Ophthalmology. www.eyeorbit.org
AAO	American Academy of Otolaryngology. www.entnet.org
AAOS	American Academy of Orthopaedic Surgeons. www.aaos.org
AAP	Association of American Physicians. www.aapsonline.org
AAP	American Academy of Pediatrics. www.aap.org
AAPHP	American Association of Public Health Physicians. www.aaphp.org
AAPM	American Academy of Pain Medicine. www.painmed.org
AAPM&R	American Academy of Physical Medicine and Rehabilitation. www.aapmr.org
AAPS	American Association of Plastic Surgeons. www.aaps1921.org

AAR	Alliance for Aging Research. www.agingresearch.org
AASCIN	American Association of Spinal Cord Injury Nurses. www.aascin.org
AASCIPSW	American Association of Spinal Cord Injury Psychologists and Social Workers. www.aascipsw.org
AASLD	American Association for the Study of Liver Diseases. www.aasld.org
AASM	American Academy of Sleep Medicine. www.aasmnet.org
AATS	American Association for Thoracic Surgery. www.aats.org
AAU	Association of American Universities. www.aau.edu
ABA	American Board of Anesthesiology. home.theaba.org/index.asp
ABAI	American Board of Allergy and Immunology. www.abai.org
ABD	American Board of Dermatology, Inc. www.abderm.org
ABEM	American Board of Emergency Medicine. www.abem.org/public
ABFP	American Board of Family Practice. https://www.theabfm.org
ABIM	American Board of Internal Medicine. www.abim.org
ABIMF	American Board of Internal Medicine Foundation. www.abim.org
ABMG	American Board of Medical Genetics. www.abmg.org
ABMS	American Board of Medical Specialties. ABMS is an organization of 24 approved medical specialty boards. www.abms.org
ABPMR	American Board of Physical Medicine & Rehabilitation. www.abpmr.org/index.html
ABNM	American Board of Nuclear Medicine. www.abnm.org
ABNS	American Board of Neurological Surgery. www.abns.org/content/default.asp
ABOG	American Board of Obstetrics and Gynecology. www.abog.org
ABOP	American Board of Ophthalmology. www.abop.org/index1.asp
ABOS	American Board of Orthopaedic Surgery. www.abos.org
ABOTO	American Board of Otolaryngology. www.aboto.org
ABP	American Board of Pediatrics. www.abp.org
ABPM	American Board of Preventive Medicine. www.abprevmed.org
ABPN	American Board of Psychiatry and Neurology. www.abpn.com
ABPS	American Board of Plastic Surgery. www.abplsurg.org
ABR	American Board of Radiology. www.theabr.org
ABS	American Board of Surgery. home.absurgery.org
ABTS	American Board of Thoracic Surgery. www.abts.org
ABU	American Board of Urology. www.abu.org
ACAAI	American College of Allergy, Asthma & Immunology. www.acaai.org
ACC	American College of Cardiology. www.acc.org
ACCM	Association of Chairs and Chiefs of Medicine. www.im.org/ACCM
ACCME	Accreditation Council for Continuing Medical Education. ACCME's mission is the identification, development, and promotion of standards for quality CME, utilized by physicians in their maintenance of competence and incorporation of new knowledge to improve quality medical care for patients and their communities. www.accme.org
ACCP	American College of Chest Physicians. www.chestnet.org
ACCP	American College of Clinical Pharmacology. www.accp1.org
ACDE	American Council for Drug Education. www.acde.org

ACE	Alliance for Clinical Education. www.allianceforclinicaleducation.org
ACE	American Council on Education. www.acenet.edu
ACEP	American College of Emergency Physicians. www.acep.org/webportal
ACG	Ambulatory Care Groups. Reimbursement method for clinic or outpatient services; diagnoses from billing data are used to classify people on the basis of the type and number of medical problems being treated.
ACG	American College of Gastroenterology. www.acg.gi.org
ACGIM	Association of Chiefs of General Internal Medicine. www.acgim.net
ACGME	Accreditation Council for Graduate Medical Education. ACGME is responsible for the accreditation of post-MD medical training programs within the United States. www.acgme.org
ACGME Fellow	A physician who is participating in the accredited program to become board-eligible in his or her chosen specialty. The formal ACGME program may be one to three years in length, depending on the medical specialty and consists of clinical and research rotations.
ACHCA	American College of Health Care Administrators. ACHCA is a professional society in health care administration, offering educational programming, career development opportunities, and certification in a variety of positions. www.achca.org
ACHE	American College of Healthcare Executives. ACHE is a professional membership society for health care executives whose mission is to meet its members' professional, educational, and leadership needs; to promote high ethical standards and conduct; and to advance health care leadership and management excellence. www.ache.org
ACICR	Animal Care Indirect Cost Recovery. ACICR is collected differently for non-federal and federal projects. For non-federal projects, all animal care charges are melded together into one rate charged to the project. The per diem cost for the animal plus the ACICR are added together and charged to the project. For federal projects, the two charges are separated. Thus, on a federal project, the per diem charge is part of TDC and ACICR is part of indirect cost recovery. On a non-federal project, the combined charge is part of indirect cost exclusions.
ACLS	Advanced Cardiac Life Support.
ACMG	American College of Medical Genetics. www.acmg.net
ACMI	American College of Medical Informatics. www.amia.org/acmi/acmi.html
ACMQ	American College of Medical Quality. www.acmq.org
ACNP	American College of Nuclear Physicians. www.acnponline.org
ACO	Administrative Contracting Officer. Individual who may receive a contracting delegation of authority from the GCO to perform certain specific administrative responsibilities by a government contract or grant. GCOs retain overall responsibility for their agreements, which they are not permitted to delegate to the ACO.
ACOEM	American College of Occupational and Environmental Medicine. www.acoem.org
ACOG	American College of Obstetrics and Gynecology. www.acog.org
ACOS	Associate Chief of Staff.
ACP	American College of Physicians. ACP's mission is to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine. www.acponline.org/index.html
ACPE	American College of Physician Executives. www.acpe.org/acpehome/index.aspx
ACPM	American College of Preventive Medicine. www.acpm.org
ACR	American College of Rheumatology. www.rheumatology.org

ACRP	Association of Clinical Research Professionals. www.acrpnet.org/index2.html
ACS	American Cancer Society. www.cancer.org/docroot/home/index.asp
ACS	American College of Surgeons. www.facs.org
ACSM	American College of Sports Medicine. www.acsm.org
AD&D	Accidental Death and Dismemberment. Insurance that pays benefits if an accident causes the death of the insured person. A benefit may also be payable for the accidental loss of limb, sight, hearing, or speech.
ADA	American Diabetes Association. www.diabetes.org
ADA	Americans with Disability Act. www.usdoj.gov/crt/ada/adahom1.htm
ADAMHA	Alcohol, Drug Abuse and Mental Health Administration. www.webref.org/psychology/a/alcohol-drug_abuse-and_mental_health_administration.htm
ADE	Adverse Drug Event.
ADEA	American Dental Education Association. www.adea.org
ADFM	Association of Departments of Family Medicine. www.adfammed.org
ADGAP	Association of Directors of Geriatric Academic Programs. www.americangeriatrics.org/adgap
ADL	Activities of Daily Living. Daily routine of self-care activities (e.g., dressing, bathing, and eating).
ADR	Adverse Drug Reaction.
ADT	Admission-Discharge-Transfer. The core component of a hospital information system that maintains and updates the hospital census.
AE	Adverse Experience. A toxic reaction to a medical or other treatment.
AEGiS	AIDS Education Global Information System. www.aegis.com
AEEM	American Academy of Emergency Medicine. www.aaem.org
AERA	American Educational Research Association. www.aera.net
AFPA	Association of Family Practice Administrators. www.afpa.net
AFCR	American Federation for Clinical Research (now AFMR). See AFMR.
AFMA	Association of Family Medicine Administration. www.afpa.net
AFMR	American Federation for Medical Research. An international multi-disciplinary association of scientists engaged in all areas of biomedical investigation-patient-oriented, translational, and basic research. www.afmr.org
AFPRD	Association of Family Medicine Residency Directors. www.afmrd.org
AGA	American Gastroenterological Association. www.gastro.org
AGS	American Geriatrics Society. www.americangeriatrics.org/education/index.shtml
AHA	American Heart Association. www.americanheart.org
AHA	American Hospital Association. www.hospitalconnect.com
AHAF	American Health Assistance Foundation. www.ahaf.org
AHC	Association of American Health Centers. www.ahcnet.org
AHC	Academic Health Center.
AHCPR	Agency for Health Care Policy and Research (now AHRQ). See AHRQ.
AHIMA	American Health Information Management Association. www.ahima.org
AHME	Association for Hospital Medical Education. www.ahme.org

AHP	Allied Health Professional. An individual trained to perform services in the care of patients other than a physician or registered nurse; includes a variety of therapy technicians, radiology technicians, and physical therapists.
AHRQ	Agency for Healthcare Research and Quality. www.ahcpr.gov
AHSR	Association for Health Services Research (now AcademyHealth). www.academyhealth.org/career/index.htm
AIAMC	Alliance of Independent Academic Medical Centers. www.aiamc.org
AICPA	American Institute of Certified Public Accountants. www.aicpa.org
AICR	American Institute of Cancer Research. www.aicr.org
AIDS	Acquired Immunodeficiency Syndrome. A disease of the immune system caused by a retrovirus and transmitted chiefly through blood or blood products, characterized by increased susceptibility to opportunistic infections, to certain cancers, and other diseases or disorders.
AIHA	American International Health Alliance. www.aiha.com
AIM	Administrators in Internal Medicine. www.im.org/AIM
AJM	The American Journal of Medicine. www.elsevier.com/wps/find/journaldescription.cws_home/525049/description#description
ALA	American Lung Association. www.lungusa.org
ALF	American Liver Foundation. www.liverfoundation.org
ALOS	Average Length of Stay. A standard hospital statistic used to determine the average amount of time between admission and discharge for patients in a DRG, an age group, a specific hospital, or other factors.
Alpha-1	ALPHA-1 Foundation. www.alphaone.org
AMA	American Management Association. www.amanet.org
AMA	American Medical Association. AMA is a partnership of physicians and their professional associations dedicated to promoting the art and science of medicine and the betterment of public health. www.ama-assn.org
AMC	Academic Medical Center. Medical schools have four major missions: education, research, clinical care, and community service. These missions are unified under the general umbrella of an AMC and their interrelations can vary from school to school.
AMCAS	American Medical College Application Service. AMCAS is a centralized application service administered by AAMC. AMCAS must be used to apply to any medical school that participates in the service (the majority of US schools). www.aamc.org/audienceamcas.htm
amfAR	American Foundation for AIDS Research. www.amfar.org
AMGA	American Medical Group Association. www.amga.org/index.htm
AMI	Acute Myocardial Infarction. Heart attack.
AMIA	American Medical Informatics Association. www.amia.org
AMRMC	Army Medical Research and Material Command. AMRMC funds a broad range of extramural research programs, usually as contracts, grants, or cooperative agreements. Research proposals can be submitted to the command through the AMRMC BAA, which is continuously open, or through special AMRMC BAA Announcements, which are open for limited time frames.
AMSA	American Medical Student Association. www.amsa.org
AMSPDC	Association of Medical School Pediatric Department Chairs. www.amspdc.org
AMWA	American Medical Women's Association. www.amwa-doc.org
ANA	American Neurological Association. www.aneuroa.org

ANAMS	Association of Native American Medical Students. www.aaip.org/programs/anams/anams.htm
ANSI	American National Standards Institute. www.ansi.org
AO	Accountable Officer or Administrative Officer.
AOA	Alpha Omega Alpha. Medical honor society. www.alphaomegaalpha.org
AOA	American Optometric Association. www.aoa.org
AOA	American Osteopathic Association. www.aoa-net.org
AOFAS	American Orthopaedic Foot & Ankle Society. www.aofas.org
AOM	Academy of Management. www.aomonline.org
AOTA	American Occupational Therapy Association. www.aota.org
APA	American Psychiatric Association. www.psych.org
APA	American Psychological Association. www.apa.org
APA	Academic Practice Assembly (MGMA). www.mgma.com/membership/assembly-society.cfm
APA	Ambulatory Pediatric Association. www.ambpeds.org
APC	Ambulatory Payment Classifications. Ambulatory payment classifications are used CMS to assign payment of outpatient and ambulatory procedure services.
APC	Association of Professors of Cardiology. www.cardiologyprofessors.org
APD	Association of Professors of Dermatology. www.dermatologyprofessors.org
APDIM	Association of Program Directors in Internal Medicine. APDIM is the international organization of accredited internal medicine residency programs. www.im.org/APDIM
APGO	Association of Professors of Gynecology and Obstetrics. www.apgo.org/home
APHA	American Public Health Association. www.apha.org
APHIS	Animal And Plant Inspection Service. www.aphis.usda.gov
APM	Association of Professors of Medicine. APM is the organization of departments of internal medicine represented by chairs and appointed leaders at medical schools and affiliated teaching hospitals in the United States and Canada. www.im.org/APM
APMA	American Podiatric Medical Association. www.apma.org
APPD	Association of Pediatric Program Directors. www.appd.org
APS	American Pain Society. www.ampainsoc.org
APS	American Paraplegia Society. www.apssci.org
APS	American Pediatric Society. www.aps-spr.org
APS	American Physiological Society. www.the-aps.org
AREA	Area Research Enhancement Act (NIH R15). AREA grants support individual research projects in the biomedical and behavioral sciences conducted by faculty and involving their undergraduate students, who are located in health professional schools and other academic components that have not been major recipients of NIH research grant funds. grants.nih.gov/grants/funding/area.htm
ARENA	Applied Research Ethics National Association. www.primr.org
ARHP	Association of Rheumatology Health Professionals. www.rheumatology.org/arhp
ARO	Army Research Office. www.aro.army.mil
ARRS	American Roentgen Ray Society. www.arrs.org
ARVO	Association for Research in Vision and Ophthalmology. www.arvo.org
ASA	American Society of Anesthesiologists. www.asahq.org

ASAM	American Society of Addiction Medicine. www.asam.org
ASB	American Society for Biotechnology.
ASBMR	American Society for Bone and Mineral Research. www.asbmr.org
ASBP	American Society of Bariatric Physicians. www.sni.net/bariatrics
ASC	Ambulatory Surgery Center. ASC is a distinct entity that operates exclusively for the purpose of furnishing outpatient surgical services to patients.
ASCB	American Society of Cell Biology. www.ascb.org
ASCI	American Society for Clinical Investigation. www.asci-jci.org
ASCO	American Society of Clinical Oncology. www.asco.org
ASCO	Association of Schools and Colleges of Optometry. www.opted.org
ASCP	American Society for Clinical Pathology. www.ascp.org
ASCPT	American Society for Clinical Pharmacology and Therapeutics. www.ascpt.org
ASD	American Society of Dermatology. www.asd.org
ASDA	American Society for Dermatologic Surgery. www.asds-net.org
ASG	Administrative Services Group. An ASG is a group of administrators in a particular department, division, or section.
ASGE	American Society for Gastrointestinal Endoscopy. www.asge.org
ASGT	American Society of Gene Therapy. www.asgt.org
ASH	American Society of Hematology. www.hematology.org
ASIM	American Society of Internal Medicine. www.acponline.org
ASM	American Society for Microbiology. www.asm.org
ASN	American Society of Nephrology. www.asn-online.org
ASO	Administrative Services Only. The practice of employers paying their employees' medical bills directly (self-insurance) and hiring insurance companies only to process claims.
ASP	Association of Specialty Professors. ASP is the organization of specialty internal medicine divisions at the US medical schools and teaching hospitals in the United States and Canada. www.im.org/ASP
ASPET	American Society for Pharmacology and Experimental Therapeutics. www.aspet.org
ASPM	American Society for Reproductive Medicine. www.asrm.org
ASSH	American Society for Surgery of the Hand. www.assh.org
AST	American Society of Transplantation. www.a-s-t.org
ASTM	American Society for Testing and Materials. www.astm.org
ASTMH	American Society of Tropical Medicine and Hygiene. www.astmh.org/index.html
ASTRO	American Society for Therapeutic Radiology and Oncology. www.astro.org
ASTS	American Society of Transplant Surgeons. www.asts.org
ATA	American Thyroid Association. www.thyroid.org
ATP	Advanced Technology Program. www.atp.nist.gov
ATPM	Association of Teachers of Preventive Medicine. www.atpm.org
ATS	American Thoracic Society. www.thoracic.org
ATSDR	Agency for Toxic Substances and Disease Registry. www.atsdr.cdc.gov
ATU	Ambulatory Treatment Unit. An inpatient unit that admits patients for no longer than 23 hours (the maximum length of time to maintain outpatient status).
AUA	American Urological Association. auanet.org
AUPHA	Association of University Programs in Health Administration. www.aupha.org

AUTM	Association of University Technology Managers. www.autm.net
A-V	Audiovisual.
AVACOM	Association of VA Chiefs of Medicine.
AWA	Animal Welfare Act. A federal program regulating the transportation, purchase, care, and treatment of animals used in research. www.nal.usda.gov/awic/legislat/usdaleg1.htm
AWIC	Animal Welfare Information Center. www.nal.usda.gov/awic
BA	Bachelor of Arts. An undergraduate degree in arts or humanities.
BAA	Broad Agency Announcement. A federal agency's announcement about general research interests that invites proposals and specifies the general terms and conditions under which an award may be made.
Bayh-Dohl Act	A federal law encouraging universities and researchers to develop their inventions into marketable products.
BBA	Balanced Budget Act of 1997.
BBRA	Balanced Budget Refinement Act of 1999.
BC	Board Certified.
BCIS	Bureau of Citizenship and Immigration Services. www.immigration.gov
BECON	Bioengineering Consortium (NIH). www.becon1.nih.gov/becon.htm
Belmont	The Belmont Report. The cornerstone statement of ethical principles for human subjects protection. ohrp.osophs.dhhs.gov/humansubjects/guidance/belmont.htm
BHPr	Bureau of Health Professions (of HRSA).
Bilat	Bilateral, both right and left.
BIO	Biotechnologies Industry Organization. www.bio.org
BIPA	Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (PL 106-554).
BLM	Blanket Order or Blanket Lease Maintenance Order. Blanket means the agreement is used for delivery of products; lease means the agreement is used for a lease with periodic payments; and maintenance means the order is used for maintenance services over a period of time. BLM orders are used to make several purchases under a basic ordering agreement over time (e.g., one year), has a NTE value (e.g., $25,000), and contains terms that are set for the duration of the agreement.
BME	Biomedical Engineering. BME is a discipline advancing knowledge in engineering, biology, and medicine that improves human health through cross-disciplinary activities that integrate the engineering sciences with the biomedical sciences and clinical practice.
BMT	Bone Marrow Transplant. BMT programs may be approved as fully accredited participating centers in the National Marrow Donor Program, providing bone marrow for allogeneic bone marrow transplantation from fully or closely matched volunteer donors.
BMT CTN	Bone Marrow Transplant Clinical Trials Network. spitfire.emmes.com/study/bmt
BOD	Board of Directors. The primary governing body of a managed care organization, university, corporation, or other major entity.
BOR	Blanket Order Release. Used to place individual orders against an existing BLM agreement. Typically, one BOR will correspond to one invoice.

BPA	Blanket Purchase Agreement. BPAs are contracts between VA and pharmacy supply manufacturers, enabling individual VA facilities to obtain additional discounts for particular medications or supplies based on the volume prescribed or used. BPA may include additional programs and services as well. Many are negotiated for specific customer groups under the VA Federal Supply Schedule program.
BPHC	Bureau of Primary Health Care. bphc.hrsa.gov
BRDPI	Biomedical Research and Development Price Index. ospp.od.nih.gov/ecostudies/brdpi.asp
BS	Bachelor of Science. An undergraduate degree in science.
BU	Bargaining Unit. An abbreviation for the Benefit Program USW Bargaining Unit.
BVA	Board of Veterans Appeals. BVA is a part of the VA, located in Washington, DC. Members of the board review benefit claims determinations made by local VA offices and issue decision on appeals. {38 U.S.C. §§ 7103, 7104} www.va.gov/vbs/bva
BWF	Burroughs Welcome Fund. www.bwfund.org
BX, Bx	Biopsy. The removal and examination of tissue, cells, or fluids from the living body.
C&P	Compensation and Pension. www.vba.va.gov/bln/21/
CAAR	Computer-Assisted Accreditation Review. www.acgme.org/acWebsite/RRC_140/caar/caarIndex.asp
CABG	Coronary Artery Bypass Graft. Heart bypass surgery, in which a damaged cardiac vessel is bypassed to continue blood flow and heart function.
CAMCAM	Center for the Assessment and Management of Change in Academic Medicine.
CAMH	Comprehensive Accreditation Manual for Hospitals. www.jcaho.org/accredited+organizations/hospitals/standards/revisions/index.htm
CAP	College of American Pathologists. www.cap.org/apps/cap.portal
CAP	Contractor-Acquired Property. Sponsor-funded property that is acquired or provided by the university for performance on an agreement and to which the government has title.
CAP	Clinical Associates Program.
CAQ	Certificate of Added Qualifications.
CARES	Capital Asset Realignment for Enhanced Services (VA). www.va.gov/CARES
CARF	Commission on Accreditation of Rehabilitation Facilities. Nationally recognized independent review organization that accredits disability service organizations. www.carf.org
CAS	Cost Accounting Standards. Universities establish CAS to standardize requirements for recipients; preclude a perceived overcharge to government; standardize university costing practices; and prevent charging unallowable costs to federal awards.
CAS	Council of Academic Societies (AAMC). www.aamc.org/members/cas/start.htm
CASB	Cost Accounting Standards Board. CASB is an independent board within OMB OFPP. The board has exclusive statutory authority to make, promulgate, amend, and rescind cost accounting standards designed to achieve uniformity and consistency among government contractors. www.whitehouse.gov/omb/circulars
CBD	Commerce Business Daily. cbdnet.access.gpo.gov/read-gd.html
CBER	Center for Biologics Evaluation and Research. www.fda.gov/cber
CBO	Congressional Budget Office. www.cbo.gov
CBOC	Community Based Outpatient Clinic. A community based outpatient clinic at the VA.
CBT	Computer-Based Training. Generic term used for the wide range of software and services offering education and training on the computer.

CC	Chief Complaint. A concise statement describing the symptom, problem, condition, diagnosis, physician-recommended return, or other reason for patient visit.
CC	Clinical Center (NIH). CC provides protocol-specific patient care in support of the intramural research programs sponsored by most NIH institutes and also serves as a resource for training clinical investigators. www.cc.nih.gov
CC	Clinical Clerk. Medical students may identify their signatures with CC (Clinical Clerk), just as licensed physicians identify their signatures with MD.
CCC	Comprehensive Cancer Center. Federal (NCI) designation and funding via application and review process. CCCs integrate research activities across three major areas: laboratory, clinical, and population-based research. www3.cancer.gov/cancercenters
CCEP	Clinical Cardiac Electrophysiology.
CCFA	Crohn's & Colitis Foundation of America. www.ccfa.org
CCM	Critical Care Medicine.
CCN	Community Care Network. Groups of local providers that compete for contracts with health insurers.
CCPH	Community-Campus Partnerships for Health. depts.washington.edu/ccph
CCRC	Certified Clinical Research Coordinator. Site administrator for a clinical study. Also called research, study, or health care coordinator and data manager, research nurse, or protocol nurse.
CCU	Critical Care Unit or Cardiac Care Unit. Intensive care nursing units.
CDA	Confidential Disclosure Agreement. CDAs protect confidential or proprietary information from being disclosed to competitors. University faculty and staff (and sometimes students) may be required to sign a CDA when discussing collaboration with a for-profit company.
CDC	Center for Disease Control. www.cdc.gov
CDER	Center for Drug Evaluation and Research. www.fda.gov/cder
CDI	Chronic Disease Index. CDI measures how well VHA follows nationally recognized clinical guidelines for ischemic heart disease, hypertension, chronic obstructive pulmonary disease, diabetes mellitus, and obesity.
CDIM	Clerkship Directors in Internal Medicine. CDIM is the organization of individuals responsible for teaching internal medicine to medical students. www.im.org/CDIM
CDMRP	Congressionally Directed Medical Research Programs. CDMRP, a source of grant funding, originated from a unique partnership among the public, congress, and department of defense. www.cdmrp.army.mil
CDLI	Clinical and Diagnostic Laboratory Immunology, now known as Clinical and Vaccine Immunology. www.cvi.asm.org
CDR	Clinical Data Repository. Clinical database optimized for storage and retrieval for individual patients and used to support patient care and daily operations.
CDR	Cost Distribution Report. The CDR allocates cost reported in the general ledger (FMS) to estimate the cost of VA departments, including patient care departments and other units. These allocations are based on service chief estimates of staff activities.
CECC	Committee on Evaluation of Clinical Competence (ABIM).
Centerwatch	Centerwatch Database. www.centerwatch.com
CEO	Chief Executive Officer. The executive responsible for a company's or hospital's operations, usually the president or the chair of the board.

CEU	Continuing Education Units. CEU consists of educational activities to develop and maintain knowledge, skills, and professional performance. CE and CME may be required to maintain professional certification or licensure.
CEX	Clinical Evaluation Exercise.
CEX	Consultation Evaluation Exercise.
CFDA	Catalog of Federal Domestic Assistance. www.cfda.gov
CFF	Cystic Fibrosis Foundation. www.cff.org
CFO	Chief Financial Officer. The executive responsible for financial planning and record-keeping for a company.
CFPC	College of Family Physicians of Canada. www.cfpc.ca/global/splash/default.asp?s=1
CFR	Code of Federal Regulations. www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1
CFSAN	Center for Food Safety and Applied Nutrition. vm.cfsan.fda.gov/list.html
CGAP	Cancer Genome Anatomy Project (NCI). www.ncbi.nlm.nih.gov/ncicgap
CGIM	Committee on General Internal Medicine.
CHAMPUS	Civilian Health & Medical Program of the Uniformed Services. www.ndw.navy.mil/Newcomers/Medical/champus.html
CHAMPVA	Civilian Health & Medical Program of the Department of Veterans Affairs. www.va.gov/hac/forbeneficiaries/champva/champva.asp
CHC	Community Health Center. Ambulatory health care program that attempts to coordinate federal, state, and local resources in a single organization capable of delivering both health and related social services to a defined population.
CHT	Certified Hyperbaric Technologist. Hyperbaric oxygen treatment (HBOT) involves delivery of 100 percent oxygen inside a treatment chamber at a pressure greater than sea level and is used in treating breathing disorders or carbon monoxide poisoning.
CIO	Chief Information Officer. Usually the executive directing technology/computer departments in an organization.
CIS	Clinical Immunology Society. www.clinimmsoc.org
CIT	Center for Information Technology (NIH). www.cit.nih.gov/home.asp
CLIA	Clinical Laboratory Improvement Amendments. CLIA establishes quality standards for all laboratory testing to ensure the accuracy, reliability, and timeliness of patient test results regardless of where the test was performed. www.cms.hhs.gov/clia
Clinical Trials	ClinicalTrials Database. www.clinicaltrials.gov
CMA	Canadian Medical Association. www.cma.ca
CME	Continuing Medical Education.
CMI	Case Mix Index. The average diagnostic related group relative weight for all Medicare admissions.
CMO	Chief Medical Officer. Physician executive with ultimate responsibility for a hospital/ health care facility. The CMO works closely with the president and CEO on matters affecting physician affairs, the provision of physician support services, and the hospital's strategic direction, operational matters, and educational and research activities.
CMS	Center for Medicare & Medicaid Services. The federal service center for Centers for Medicare and Medicaid Services (HCFA prior to July 1, 2001). cms.hhs.gov
CMS	Council of Medical Societies (ACP). www.acponline.org
CMSS	Council of Medical Specialty Societies. www.cmss.org
CMWF	Commonwealth Fund. www.cmwf.org

CNS	Clinical Nurse Specialist. A registered nurse with an advanced degree in a particular area of patient care (e.g., neurosurgery clinical nurse specialist).
COB	Coordination of Benefits. A group policy provision which helps determine the primary carrier in situations in which an insured is covered by more than one policy.
COBRA	Consolidated Omnibus Budget Reconciliation Act. COBRA is a law requiring continuation coverage by employers with 20 or more employees, which allow employees and their dependents to keep their group health coverage for a time after they leave their group health plan under certain conditions. www.dol.gov/dol/topic/health-plans/cobra.htm
COC	Committee on Credentials.
COD	Council of Deans (AAMC). www.aamc.org/members/cod/start.htm
COGME	Council on Graduate Medical Education. www.cogme.gov
COGR	Council on Government Relations. COGR is an association of research universities involved with development of all major financial and administrative aspects of federally-funded research. www.cogr.edu
COI	Certificate of Insurance. A document used to provide verification of insurance coverage.
COI	Conflict of Interest. COI arises when an individual's private interests (such as outside professional or financial relationships) might interfere with his or her professional obligations to the hiring institution. Such situations do not imply wrong-doing or inappropriate activities. However, in a research university setting, they can compromise or be perceived as compromising important academic values, research integrity, or the university mission.
COLA	Cost of Living Adjustment. Average cost of basic necessities of life (such as food, shelter, and clothing) represented in annual salary increase at some institutions.
COMLEX-USA	Comprehensive Osteopathic Medical Licensing Examination. www.nbome.org
COMSEP	Council on Medical Student Education in Pediatrics. www.unmc.edu/Community/comsep
COO	Chief Operating Officer. The executive who is responsible for the day-to-day management of a company.
Co-PI	Co-Principal Investigator. The co-PI is the individual who co-signs documents related to a sponsored project or who may be designated as a co-PI in grant-related documents. This person has decision-making power with regard to the conduct of the research. The co-PI reports to the PI, who is ultimately responsible for the conduct of the research.
COPR	Council of Public Representatives (NIH). copr.nih.gov/About_COPR.shtm
COS	Chief of Staff. The senior officer of service within an organization.
COS	Community of Science. fundingopps2.cos.com
COSEPUP	Committee on Science, Engineering, and Public Policy. www7.nationalacademies.org/cosepup/index.html
COTH	Council of Teaching Hospitals.
CPA	Certified Public Accountant.
CPC	Certified Procedural Coder.
CPG	Clinical Practice Guidelines. Systematically development clinical practice guidelines to assist clinicians and patients in making decisions about appropriate health care for specific clinical circumstances.

CPI	Consumer Price Index. CPI is prepared by the US Bureau of Labor Statistics and is a monthly measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The medical care component of CPI shows trends in medical care prices based on specific indicators of hospital, medical, dental, and drug prices. www.bls.gov/cpi/home.htm
CPOE	Computer Physician Order Entry. Computerized system that allows physicians to directly enter medical orders into a medical information system.
CPP	Certified Payroll Professional.
CPT	Current Procedural Terminology. Developed by AMA more than 30 years ago to provide health care professionals with a uniform language for effective communication. Through an extensive editorial process involving a community of national experts and representatives, CPT is continually reviewed, revised, and updated to reflect changes in medical care.
CPT-4	Current Procedural Terminology-4 Codes. Code numbers used by physicians and insurance companies to identify specific procedures. The appropriate CPT-4 codes are updated each year and establish the requirements for determining the levels of care.
CQI	Continuous Quality Improvement. A quality management approach building on traditional quality assurance methods by emphasizing the organization and systems; focusing on process rather than the individual; recognizing both internal and external customers; and promoting the need for objective data to analyze and improve processes. CQI uses statistical and other analytical methods to define a process and seek ways to reduce the resources needed to complete the process and control process variations; it also focuses on consumer needs, employee participation, and team building skills.
CR	Credit. The ability to buy an item or to borrow money in return for a promise to pay later.
CRA	Certified Radiology Administrator.
CRA	Clinical Research Associate. Person employed by a sponsor or a contract research organization who acts on a sponsor's behalf and monitors the progress of investigator sites participating in a clinical study.
CRADA	Cooperative Research And Development Act. The Federal Technology Transfer Act (FTTA) of 1986, Public Law 99-502, further amended on March 7, 1996, by Pub. L. No. 104-113, authorized CRADA as a new mechanism to encourage the transfer of the results of federal research and development to the private sector. www.vard.org/tts/crada/guide.htm
CRADO	Chief Research and Development Officer is a position in the VA system.
CRC	Clinical Research Coordinator. A CRC works at a clinical research site whose research activities are conducted under the principal investigator. A CRC's tasks may include verifying study feasibility; facilitating formal approval; planning trial execution; assisting in subject recruitment; coordinating study procedures; collecting data; safeguarding protocol; and coordinating study close out.
CRC	Comprehensive Rehabilitation Center. A specialized center, such as the Palo Alto VA.
CRCA	Clinical Research Curriculum Award (NIH). grants1.nih.gov/training/k30.htm
CRDO	Chief Research and Development Officer (VA).
CRF	Case Report Form. A standardized data entry form used in a clinical trial. Generally, all information collected in trials appears on case report forms or is referred to and explained by case report forms (as in the case of attached lab slips). Even in circumstances where there is other documentation in addition to CRFs (like the lab slips), generally all key values that will be analyzed appear on the CRF.

CRISP	Computer Retrieval of Information on Scientific Projects. crisp.cit.nih.gov
CRO	Contract Research Organization. A person or an organization (commercial, academic, or other) contracted by the sponsor to perform one or more of a sponsor's study-related duties and functions.
CRS	Congressional Research Service. www.loc.gov/crsinfo/whatscrs.html
CS	Clinical Specialist.
CSA	Clinical Skills Assessment.
CSCR	Central Society for Clinical Research. www.cscr.com/index.php
CSERD	Criteria for selection, evaluation, remediation, and dismissal (of residents).
CSHEMA	Campus Safety Health and Environmental Management Association. www.cshema.org
CSIM	Committee on Subspecialty Internal Medicine. www.abim.org/subspec/CSIM.htm
CSP	Cooperative Studies Program (VA). www.va.gov/resdev/about/csp.cfm
CSQ	Certificate of Special Qualifications.
CSR	Center for Scientific Review. www.csr.nih.gov/default.htm
CSR	Communicable Disease Surveillance and Response (WHO). www.who.int/csr/en
CSS	Council of Subspecialty Societies. www.acponline.org/css/index.html
CT, CAT Scan	Computerized Axial Tomography Scan.
CTRF	Clinical Trial Registration Form. A form notifying billing services that a patient's services are to billed to a clinical trial rather than the patient's health care plan.
CUPA-HR	College and University Professional Association for Human Resources. www.cupahr.org/abtcupa/01ov.htm
CV	Curriculum Vitae. A detailed, lengthy, and structured listing of education, publications, projects, awards, and work history.
CVA	Cerebrovascular Accident. CVA, or stroke, occurs when blood vessels carrying oxygen and other nutrients to a specific part of the brain suddenly burst or become blocked.
CVD	Cardiovascular Disease. Diseases of the heart and blood vessels.
CVI	Clinical and Vaccine Immunology (formerly known as Clinical and Diagnostic Laboratory Immunology). cvi.asm.org
CXR	Chest X-Ray. Radiograph of the chest.
DAR	Days in Accounts Receivable. The number of days between the date of service to the date of payment.
DAR	Defense Acquisition Regulations. www.defenselink.mil
DARPA	Defense Advanced Research Projects Agency. www.darpa.mil
DAV	Disabled American Veteran.
DC	Direct Costs. Clearly identifiable costs related to a specific project. General categories of direct costs include, but are not limited to, salaries and wages, fringe benefits, supplies, contractual services, travel and communication, equipment, and computer use.
DCAA	Defense Contract Audit Agency. DCAA audits grants, contracts, and educational compliance with A-21 and other generally accepted accounting principles (GPAA). www.dcaa.mil
DCASR	Defense Contract Administration Services Region.
DCSA	Doris Duke Distinguished Clinical Scientist Award. ddcf.aibs.org/dcsa
DDCF	Doris Duke Charitable Foundation. fdncenter.org/grantmaker/dorisduke/index.html
DDW	Digestive Disease Week. www.ddw.org/about

DEA	Drug Enforcement Administration. Every physician prescribing controlled substances must have a current DEA certificate on file with his or her institution. www.usdoj.gov/dea
DED	Deductible. The amount of money, as determined by the benefit plan, a person must pay for authorized health care services before insurance payment commences. Deductibles are usually calculated on a calendar year basis, but can also be based on the anniversary date of a patient's effective date with that plan or plan year of the named insured or subscriber.
DFA	Director of Finance and Administration. Chief administrative/financial officer for a work unit, such as a department of medicine.
DFARS	Defense Federal Acquisition Regulation Supplement. DFARS adds to a FAR; the FAR contains contract regulations and clauses used by all federal agencies. Most agencies have FAR regulation supplements that can add to the FAR, but may not conflict with it.
DGI	Diplomate Generated Item.
DGME	Direct Graduate Medical Education. The Medicare DGME payment compensates teaching hospitals for some of the costs directly related to the graduate training of physicians. www.aamc.org/advocacy/library/gme/gme0001.htm
DME	Direct Medical Education. DME is funding passed to a residency or fellowship program from a hospital receiving DGME from Medicare. DME is meant to offset the additional costs of business in an environment training students, residents, and fellows.
DME	Durable Medical Equipment.
DMH	Department of Mental Health. www.dmh.cahwnet.gov
DNA	Deoxyribonucleic Acid. Any of the various nucleic acids that are usually the molecular basis of heredity are localized, especially in cell nuclei, and are constructed of a double helix held together by hydrogen bonds between purine and pyrimidine bases which project inward from two chains containing alternate links of deoxyribose and phosphate.
DO	Doctor of Osteopathy. A DO degree requires four academic years of study. The American Osteopathic Association (AOA) Bureau of Professional Education accredits colleges of osteopathic medicine in the United States that grant the DO degree.
DOB	Date of Birth.
DOC	US Department of Commerce. www.commerce.gov
DOD	US Department of Defense. www.defenselink.mil
DOE	US Department of Energy. www.energy.gov/engine/content.do
DOED	US Department of Education. www.ed.gov/index.jsp
DOS	Date of Service. Date on which health care services were provided to the covered person or the date on which such services started if the service required multiple days, such as a facility admission.
DOS	US Department of State. www.state.gov
DPA	Department Property Administrator. DPAs are responsible for assisting University Property Administration (UPA) in the tracking of capital assets in their area.
DRG	Diagnostic Related Group. Used by CMS to assign payment for inpatient services, DRG is a patient classification system relating demographic, diagnostic, and therapeutic characteristics to length of inpatient stay and amount of consumed resources; providing a framework for specifying hospital case mix; and identifying a number of classifications of illnesses and injuries for which Medicare payment is made under the prospective pricing system.
DRG	Division of Research Grants (NIH). cms.csr.nih.gov
DrPH	Doctor of Public Health.

DSH	Disproportionate Share Hospital Payment.
DSMB	Data and Safety Monitoring Board. Researchers, ideally independent, who periodically review data from blinded placebo-controlled trials. DSMB can stop a trial if toxicities are found or if a treatment is proved beneficial.
DSRC	Defense Science Research Center.
DSS	Decision Support System. Financial planning and DSS provides analytical, reporting, and educational support to managers and their support staff.
DUNS	Dun and Bradstreet Data Universal Numbering System. Use of the Dun and Bradstreet DUNS number will be required when applying for federal grants or cooperative agreements. grants1.nih.gov/grants/funding/phs398/phs398.html
DVM	Doctor of Veterinary Medicine.
DX, Dx	Diagnosis.
E&M, E/M	Evaluation and Management Codes. E&M codes are used to form the basis for billing of all outpatient activity.
EAC	External Advisory Committee.
EAD	Employment Authorization Document. A card issued to certain applicants who have requested work authorization.
EAP	Employee Assistance Program. A program providing counseling and referral to community resources to employees with personal, mental, emotional, and other problems.
EARDA	Extramural Associates Research Development Award (NIH).
EBM	Evidence-Based Medicine. EBM is the practice of medicine utilizing the integration of individual clinical expertise with the best available external clinical evidence from systematic research.
EBRI	Employee Benefit Research Institute. www.ebri.org
ECC	Emergency Cardiac Care.
ECFMG	Educational Commission for Foreign Medical Graduates. Through its program of certification, the ECFMG assesses the readiness of IMGs to enter residency or fellowship programs in the United States that are accredited by ACGME. www.ecfmg.org
ED	Emergency Department.
EDI	Electronic Data Interchange. The electronic transmission of routine business documents in a standard format from one computer to another.
EEG	Electroencephalogram. A graphical record of electrical activity of the brain.
EEO	Equal Employment Opportunity. Discrimination is defined in civil rights law as unfavorable or unfair treatment of a person or class of persons in comparison to others who are not members of the protected class because of race, sex, color, religion, national origin, age, physical/mental handicap, sexual harassment, sexual orientation, or reprisal for opposition to discriminatory practices or participation in the EEO process. Federal EEO laws prohibit an employer from discriminating against persons in all aspects of employment, including recruitment, selection, evaluation, promotion, training, compensation, discipline, retention, and working conditions, because of their protected status.
EEOC	Equal Employment Opportunity Commission. www.eeoc.gov
EFC	Effective Family Contribution. The amount that a student and his or her parents should be reasonably expected to provide toward meeting college expenses. The formula for computing family contribution is established by federal regulations and the completed Free Application for Federal Student Aid (FAFSA).

EFT	Electronic Funds Transfer. A method of payment in which one bank transfers funds electronically into another bank account. In payables, a bank transfers funds from one bank account into the bank account of a supplier one pays with an electronic payment method.
EKG, ECG	Electrocardiogram. A graphical recording of the cardiac cycle.
EMPO	Emergency Preparedness Office (VA).
EMR	Electronic Medical Record. Computerized system providing real-time data access and evaluation in medical care.
EMS	Emergency Medical Services. Those services needed to evaluate or stabilize an acute medical condition.
EMTALA	Emergency Medical Treatment and Labor Act. www.cms.hhs.gov/providers/emtala/default.asp
ENT	Ear, nose, and throat medicine. Also called Otolaryngology.
Entrez	Entrez Database. Entrez is a retrieval system for searching several linked databases. www.ncbi.nlm.nih.gov/Entrez
EOB	Explanation of Benefits. A health plan-provided statement explaining the benefit calculation and payment of medical services. An EOB lists the charges submitted, the amount allowed, the amount paid, and any balance owed as the patient's responsibility.
EOC	Emergency Operations Center. During a disaster response, a central EOC coordinates emergency information and resources.
EOI	Evidence of Insurability.
EPA	Environmental Protection Agency. www.epa.gov
EPC	Evidence-Based Practice Center. An EPC practices evidence-based medicine based on the premise that clinical decisions are based on the best evidence, either from the research literature or clinical expertise, and improves the quality of care and the patient's quality of life.
EPO	Emergency Preparedness Office (DHS). www.dhs.cahwnet.gov/ps/ddwem/environmental/epo/epoindex.htm
EPO	Exclusive Provider Organization. EPO is a health plan limiting coverage of non-emergency care to contracted health care providers. EPO operates similar to an HMO plan, but is usually offered as an insured or self-funded product.
ERA	Electronic Research Administration. Conducting research administration by utilizing electronic resources such as the Internet, form templates, databases, and other electronic tools.
ERAS	Electronic Residency Application Service. ERAS is produced by AAMC to transmit residency applications, letters of recommendation, Dean's Letters, transcripts, and other supporting documents to residency program directors via the Internet. www.aamc.org/audienceeras.htm
ERCP	Endoscopic Retrograde Cholangiopancreatography. The endoscope is used by a gastroenterologist to diagnose and treat various problems of the GI tract. Retrograde refers to the direction in which the endoscope is used to inject a liquid enabling X-rays to be taken of the parts of the GI tract. The process of taking these X-rays is known as cholangio pancreatography. Cholangio refers to the bile duct system, pancrea to the pancreas.
ERISA	Employee Retirement Income Security Act. ERISA was enacted to ensure that employees receive the pension and other benefits promised by their employers. www.dol.gov/dol/topic/health-plans/erisa.htm

F&A	Facility and Administrative costs. Also known as indirect costs, F&A are incurred for common or joint objectives, and therefore cannot be identified specifically with a particular sponsored project, an instructional activity, or any other institutional activity.
F-1	F-1 visa. Status allowing one to remain in the United States given proper registration as a full-time student.
FACP	Fellow of the American College of Physicians. www.acponline.org/college/membership/facp.htm
FACR	Fellow of the American College of Radiology.
FACS	Fellow of the American College of Surgeons.
FACT	Foundation for the Accreditation of Cellular Therapy. www.factwebsite.org
FAFSA	Free Application for Federal Student Aid. www.fafsa.ed.gov
FAQ	Frequently Asked Questions.
FAR	Federal Acquisition Regulations. Policies and procedures for acquisitions of goods or services used by executive agencies of the federal government on contracts. www.arnet.gov/far
FASEB	Federation of American Societies for Experimental Biology. www.faseb.org
FastLane	FastLane Database. https://www.fastlane.nsf.gov/fastlane.jsp
FBR	Foundation for Biomedical Research. www.fbresearch.org
FCC	Federal Communications Commission. www.fcc.gov
FCIM	Federated Council for Internal Medicine (FCIM).
FCVL	Fellow Credential Verification Letter. Letter used to verify fellow credentials at the VA.
FDA	Food and Drug Administration. FDA is a federal science-based law enforcement agency mandated to protect public health. www.fda.gov
FDNCENTER	Foundation Center. www.fdncenter.org
FDP	Federal Demonstration Partnership. www.thefdp.org
FEDGRANTS	Federal Grant Funding Opportunity Database. fedgrants.gov/Applicants
FEDIX	Federal Information Exchange. www.id.ucsb.edu/detche/library/fedix.html
FEMA	Federal Emergency Management Agency. www.fema.gov
FERPA	Family Educational Rights and Privacy Act. Covers rights of parents of school-age children regarding reviewing, amending, and disclosing educational records. www.ed.gov/policy/gen/guid/fpco/ferpa/index.html
FFELP	Federal Family Education Loan Program. www.ed.gov/pubs/Biennial/502.html
FFS	Fee For Service. An arrangement under which patients or a third party pay physicians, hospitals, or other health care providers for each encounter or service rendered.
FIC	John E. Fogarty International Center. www.fic.nih.gov
FICA	Federal Insurance Contributions Act. The federal law which requires employers to withhold a portion of employee wages and pay them to the government trust fund which provides retirement benefits. More commonly known as social security. www.ssa.gov/mystatement/fica.htm
FIN	Finance.
FINH	Foundation for the National Institutes of Health. www.fnih.org
FLSA	Fair Labor Standards Act. Provides the criteria to determine if a position is exempt or non-exempt. www.dol.gov/esa/whd/flsa
FMG	Foreign Medical Graduate. Physician who completed medical school at a non-US accredited program.

FMGEMS	Foreign Medical Graduate Examination in the Medical Sciences. A two-day exam developed cooperatively by NBME and ECFMG, which is administered semi-annually and includes testing in the basic medical and clinical sciences. www.mdgreencard.com/credential.html
FMLA	Family and Medical Leave Act. Allows eligible employees to take off up to 12 work weeks in any 12-month period for the birth or adoption of a child, to care for a family member, or if the employee has a serious health condition. www.dol.gov/esa/whd/fmla
FMS	Financial Management System (VA). www.fsqas.finance.va.gov/fsdfms.htm
FOB	Free on Board. The point or location where the ownership title of goods is transferred from the seller to the buyer. Delivery of a shipment will be made on board or into a carrier by the shipper without charge and is usually followed by a shipping point or destination.
FOCiS	Federation of Clinical Immunology Societies. www.focisnet.org
FOIA	Freedom of Information Act. Provides any person with the right to request access to federal agency records or information. All agencies of the US government are required to disclose records upon receiving a written request for them, except for those records (or portions of them) that are protected from disclosure by the nine exemptions and three exclusions of FOIA. www.usdoj.gov/04foia
Form 8233	Tax Exemption Form for Nonresident Alien. Form 8233 is the US tax exemption form for withholding compensation for independent personal services of a nonresident alien individual.
FOVA	Friends of VA Medical Care and Health Research Coalition. www.aamc.org/advocacy/friendsofva/start.htm
FPO	Faculty Physician Organization.
FPO	Federation of Pediatric Organizations. www.fopo.org/FOPOinfo.htm
FR	Federal Registry. The official daily publication for rules, proposed rules, and notices of US federal agencies and organizations, as well as executive orders and other presidential documents. www.gpoaccess.gov/fr/index.html
FREIDA	Fellow and Residency Electronic Interactive Database. FREIDA Online is a database with more than 7,800 graduate medical education programs accredited by ACGME as well as more than 200 combined specialty programs. www.ama-assn.org/ama/pub/category/2997.html
FSA	Flexible Spending Account. Under US IRS Code Section 125, employees can set aside money on a pretax basis to pay for eligible unreimbursed health and dependent care expenses. Annual monetary limits and use it or lose it provisions exist. Accounts are subject to annual maximums and forfeiture rules.
FSMB	Federation of State Medical Boards. FSMB and NBME sponsor the USMLE exams. www.fsmb.org
FSR	Financial Status Report. A statement of expenditures sent to the sponsor of a grant or contract.
FTC	Federal Trade Commission. www.ftc.gov
FTP	File Transfer Protocol. Allows transfer of files from one computer to another.
FundsNET	Funds Network Database. www.fundsnetservices.com
FWA	Federal-Wide Assurance. www.hhs.gov/ohrp/humansubjects/assurance/filasurt.htm
FY	Fiscal Year. An accounting period of 12 months.
GAAP	Generally Accepted Accounting Principles. A widely accepted set of rules, conventions, standards, and procedures for reporting financial information, as established by the Financial Accounting Standards Board.

GAF	Geographic Adjustment Factor. Used by Medicare to adjust fee schedules.
GAO	General Accounting Office. GAO is the audit, evaluation, and investigative arm of Congress. www.gao.gov
Gatekeeper	In a managed care plan, a primary care doctor gives basic medical services and coordinates proper medical care and referrals.
Gates Foundation	Bill and Melinda Gates Foundation. www.gatesfoundation.org
GCP	Good Clinical Practice. A standard for the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials.
GCR	Gross Collection Rate. A metric used to calculate the percentage of charges collected (net revenue/gross charges=GCR percentage).
GCRC	General Clinical Research Center. www.ncrr.nih.gov/clinical/cr_gcrc.asp
GEA	Group on Educational Affairs (AAMC). www.aamc.org/members/gea
GFP	Government-Furnished Property is property owned by the US government and provided directly from the government to the contractor or its subcontractors. May also be property transferred from one agreement to another by direction of the government.
GI	Gastroenterology and Hepatology. GI includes stomach, esophageal, liver, and intestinal disease and disorders.
GIM	General Internal Medicine. Non-subspecialty internal medicine or primary care services.
GL	General Ledger Code. Used in accounting systems to classify the type of financial transaction incurred.
GL Date	General Ledger Date. The end date of an accounting period in which costs or revenue are transferred to the general ledger.
GLP	Good Laboratory Practice. A quality system concerned with the organizational process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived, and reported.
GM	General Motors (Grant Awards). www.gm.com/company/gmability/philanthropy/cancer_research/history.htm
GME	Graduate Medical Education. An office sponsoring and managing residency and fellowship programs accredited by the ACGME.
GMO	Grants Management Officer. An NIH official responsible for the business management aspects of grants and cooperative agreements, including review, negotiation, award, and administration; and for the interpretation of grants administration policies and provisions.
GPG	Grant Proposal Guide (NSF). www.nsf.gov/pubsys/ods/getpub.cfm?gpg
GPO	Government Printing Office. www.gpoaccess.gov/index.html
GPRA	Government Performance Results Act. GPRA holds government agencies accountable for and measures performance by the results and impacts aligned with the budgeting process. This law has a timeline for strategic planning and the reporting of performance results. www.whitehouse.gov/omb/mgmt-gpra/gplaw2m.html
Grant	A financial assistance mechanism providing money, property, or both to an eligible entity to carry out an approved project or activity.
GRANTSNET	GrantsNet Database. www.grantsnet.org
GSA	General Services Administration. Central management agency within the federal government that sets federal policy in such areas as federal procurement, real property management, and information resources management. The administration function also includes auditing at various levels.

GSA	Gerontological Society of America. www.geron.org
GU	Genitourinary. Of or relating to the genital and urinary organs or functions.
GUI	Graphic User Interface. A graphical way to represent a computer operating system, such as Windows XP.
Guidestar	Guidestar Database. www.guidestar.org
H&P	History and Physical. Summarized information about a complete workup of the patient or about one primary problem.
HAZMAT	Hazardous Materials. hazmat.dot.gov
HBPC	Home Based Patient Care. A veteran program providing palliative care for veterans seeking palliative care at home, but who either do not meet formal Medicare hospice criteria or elect not to receive care from a home hospice agency.
HCFA	Health Care Financing Administration, now CMS. www.hcfa.gov
HCFO	Health Care Financing and Organization. www.hcfo.net/about.htm
HCSA	Health Care Spending Account. An arrangement through which a portion of salary-before-tax is directed to a health care spending account to pay for certain eligible medical or dental expenses.
HCUP	Healthcare Cost and Utilization Project. HCUP is a family of health care databases and related software. www.ahcpr.gov/data/hcup/hcupnet.htm
HEDIS	Health Employer Data and Information Set. Set of standard performance measures providing information about the quality of a health plan. CMS collects HEDIS data for Medicare plans.
Heme	Hematology. An internal medicine subspecialty focusing on diseases and disorders involving blood.
HERC	Health Economics Resource Center. www.herc.research.med.va.gov
HESC	Human embryonic stem cell.
HFI	Hepatitis Foundation International. www.hepfi.org
HFMA	Healthcare Financial Management Association. www.hfma.org
HGP	Human Genome Project (NIH). www.genome.gov/10001772
HHS	US Department of Health and Human Resources. www.hhs.gov
HHS Grantsnet	HHS Grantsnet. www.hhs.gov/grantsnet/roadmap/index.html
HIPAA	Health Insurance Portability and Accountability Act of 1996. Protects health insurance coverage for workers and their families when they change or lose their jobs and protects privacy for all patients by restricting access to medical information. www.cms.hhs.gov/hipaa
HIV	Human Immunodeficiency Virus.
HMMP	Hazardous Materials Management Program. The Army HMMP identifies hazardous material management requirements, assigns responsibilities for management, and establishes centralized operating procedures.
HMO	Health Maintenance Organization. Health care delivery system that typically uses contracted primary care physicians to coordinate all health care for enrolled members.
HPDM	High Performance Development Model (VA). An HPDM plan addresses performance-based reward and recognition as well as coaching, mentoring, and leadership development programs for varied levels in the organization.

HPI	History of Present Illness. A chronological description of the development of the patient's present illness from the first sign or symptom to include location, quality, severity, duration, timing, context, modifying factors, associated signs, or symptoms.
HPSA	Health Professional Shortage Areas. bhpr.hrsa.gov/shortage
HPSP	Health Professional Scholarship Program. www.army.mil/usapa/epubs/pdf/r601_141.pdf
HR	Human Resources. Contributes to organization success by planning for acquiring, deploying, maintaining, and developing a productive and cost-effective workforce.
HRO	Human Resources Officer. Provides help and advice on personnel matters throughout the university or organization.
HRQOL	Health-Related Quality-of-Life Measure. Any of a variety of tools (e.g., questionnaires, rating scales, or surveys) used to assess the effect of an individual's health on how well he or she performs activities of daily living and fulfills social, familial, and personal roles.
HRSA	Health Resources and Services Agency. www.hrsa.gov
HSA	Health Services Administrator. HSAs work in offices within hospitals and other health care settings managing the business side of health care.
HSR&D	Health Services Research and Development Service (VA). www.hsrd.research.va.gov
HTML	Hyper Text Markup Language. The document specification language used on the Internet.
HUD	Department of Housing and Urban Development. www.hud.gov
HVAC	House Committee on Veterans Affairs. HVAC reviews veterans' programs, examines current laws, and reports bills and amendments to strengthen existing laws concerning veterans and VA, such as for health care, disability compensation, GI bill education and job training, home loan guarantees, life insurance policies, and a nationwide system of veterans' cemeteries.
I-129	I-129 Form. BCIS form on which employers submit a variety of employment-based petitions to the BCIS.
I-130	I-130 Form. BCIS form on which individuals petition the BCIS to allow their relatives to become permanent residents.
I-140	I-140 Form. BCIS form on which employment-based petitions are filed.
I-151	I-151 Form (Green Card). Allows an alien to become a lawful permanent resident of the United States and to work legally, travel abroad and return, bring in a spouse and children, and become eligible for citizenship.
I-20	I-20 Form. A document issued by a school to a nonimmigrant student. Used to obtain an F-1 entry visa for admission to the United States and subsequently for the DOS to make recommendations and grant authorizations.
I-539	I-539 Form. A BCIS form on which an applicant can request an extension of his or her nonimmigrant stay. Used for dependents who need to change visa status based on a principal who is making a change from one type of nonimmigrant classification to temporary employment.
I-551	I-551 Form. BCIS form number for a permanent residency visa or green card.
I-9	Employment Eligibility Verification. www.immigration.gov/graphics/formsfee/forms/i-9.htm
I-94	I-94 Form. Legal entry record into the United States with immigration status.
IACUC	Institutional Animal Care and Use Committee. Government term for the committee that oversees the humane care and treatment of laboratory animals. www.iacuc.org
IARC	International Agency for Research on Cancer (WHO). www.iarc.fr

IBC	Institutional Biosafety Committee. NIH mandated the presence of an Institutional Biosafety Committee for all organizations that come under NIH regulations. www4.od.nih.gov/oba/IBC/IBCindexpg.htm
ICD	International Classification of Disease. Widely used classification system employed to codify diseases and medical conditions. www.who.int/whosis/icd10
ICF	Intermediate Care Facility. A nursing home, recognized under Medicaid, that provides health-related care and services to individuals not requiring acute or skilled nursing care, but who, because of their mental or physical condition, require care and services above the level of room and board; available only through facility placement. Institutions for care of the mentally retarded or people with related conditions (ICF/MR) are also included. The distinction between health-related care and services and room and board is important since ICFs are subject to different regulations and coverage requirements than institutions which do not provide health-related care and services.
ICOHRTA	International Clinical, Operational and Health Services Research and Training Award. Supports training to facilitate collaborative, multidisciplinary, international clinical, operational, health services, and prevention science research between US institutions and those in developing countries as well as emerging democracies of eastern Europe, Russia, and the Newly Independent States (NIS).
ICR	Indirect Cost Rate. This rate is expressed as a percentage of a base amount; established by negotiation with the cognizant internal agency; based on the institution's projected costs for the year; and distributed as prescribed in OMB Circular A-21.
ICU	Intensive Care Unit. A hospital inpatient unit in which seriously ill patients are closely monitored.
ID	Infectious Diseases. A subspecialty of internal medicine encompassing all aspects of infectious disease (viral, bacterial, etc.) and geographic medicine, including clinical microbiology, hospital epidemiology, AIDS, international health, and tropical medicine.
IDC	Indirect Costs. Costs incurred in the accomplishment of sponsored research and that are no less actual or related than direct costs. Indirect costs differ from direct costs in that they have been incurred for purposes common to some or all of the specific programs, projects, or activities for the university. Sponsored research programs are supported both by those costs that are directly charged to the program and those costs that cannot be directly charted but that are indirectly accumulated and applied to such programs and projects by estimation.
IDCR	Indirect Cost Recovery.
IDE	Investigational Device Exemption. FDA permission for a company or sponsor to use its new medical device in a clinical trial evaluating the safety and efficacy of the device. An IDE is not yet FDA approved for marketing, but must be investigated in clinical trials to gather data that FDA will consider for the marketing approval application.
IDP	Interdisciplinary Programs. IDP involve two or more academic, scientific, or artistic disciplines.
IDS	Integrated Delivery System.
IDSA	Infectious Diseases Society of America. www.idsociety.org
IFB	Invitation for Bid. A solicitation issued to prospective bidders. An IFB describes what is required and how the bidders will be evaluated. Award is based on the lowest bid. Negotiations are not conducted.
IFFGD	International Foundation for Functional Gastrointestinal Disorders. www.iffgd.org
IHI	Institute for Health Improvement. A non-profit organization driving the improvement of health by advancing the quality and value of health care. www.ihi.org

IHPS	Institute for Health Policy Solutions. www.ihps.org
IHS	Indian Health Service. www.ihs.gov
ILAR	Institute for Lab Animal Research. dels.nas.edu/ilar
IME	Indirect Medical Education.
IMEA	Indirect Medical Education Adjustment.
IMG	International Medical Graduate.
IM-ITE	Internal Medicine In-Training Examination.
IND	Investigational New Drug. Authorization from FDA to administer an investigational drug or biological product to humans in clinical trials. When the sponsor deems the trials are completed, an NDA is made.
INS	Immigration and Naturalization Service. www.usaimmigrationservice.org
IOM	Institute of Medicine. IOM's mission is to advance and disseminate scientific knowledge to improve human health. IOM provides objective, timely, authoritative information and advice concerning health and science policy to government, the corporate sector, the professions, and the public. www.iom.edu
IP	Internet Protocol. An IP address identifies each sender or receiver of information that is sent in packets across the Internet.
IPA	Independent Practice Association/Independent Physician Organization. A medical organization of individual physicians that contracts with insurance plans.
IPA	Intergovernmental Personnel Act. The agreement used to contract employment between the VA and another organization. www.opm.gov/forms/html/of.asp
IPC	Incidental Patient Contact. Limited contact with patients for teaching purposes.
IPR	Intellectual Property Rights. Legal means used by governments to ensure that the producers of technology reap the rewards of their investment, effort, and creativity.
IR	Interventional Radiology.
IR&D	Independent Research and Development. The Department of Defense (DOD) Independent Research and Development (IR&D) and Bid and Proposal (B&P) Program (commonly referred to as the IR&D Program) promotes communications between DOD and industry to increase the effectiveness of independent research and development activities and to ensure effective use of IR&D accomplishments to meet defense needs. www.dtic.mil/ird/program/index.html
IRA	Individual Retirement Account. A tax-deferred retirement account that permits individuals to set aside a specific amount of money per year, with earnings tax-deferred until withdrawals begin at a designated age. IRAs can be established at a bank, mutual fund, or brokerage. Only individuals who do not participate in a pension plan at work or who do participate and meet certain income guidelines can make deductible contributions to an IRA. All others can make contributions to an IRA on a non-deductible basis.
IRB	Institutional Review Board. Established by research institutions to ensure the protection of rights and welfare of human research subjects participating in research conducted under their auspices.
IRG	Integrated Review Group (NIH). Group of review study sections organized around an area of science that perform initial peer review in the NIH Center for Scientific Review.
IRIS	Illinois Research Information Service. gateway.library.uiuc.edu/iris
IRP	Intramural Research Program (NIH).
IRPG	Interactive Research Project Grant. Grant award made to two or more investigators funded independently as R01 grantees, but brought together as a collaborative group receiving additional support for collaborative work, shared resources, or the exchange of ideas.

IRS	Internal Revenue Service. The US national tax collection agency. www.irs.gov
ISCB	International Society for Computational Biology. www.iscb.org/index.html
ISDN	Integrated Services Digital Network. A set of communications standards allowing a single wire or optical fiber to carry voice, digital network services, and video.
ISPE	International Society of Pharmacoepidemiology.
ISSCR	International Society for Stem Cell Research. www.isscr.org
ISTAHC	International Society of Technological Assessment in Health Care. Publishes the International Journal of Technology Assessment in Health Care.
IT	Information Technology. The use of hardware, software, services, and supporting infrastructure to manage and deliver information.
ITC	Investment Tax Credit. A US tax credit based on asset cost.
ITC Amount	Investment Tax Credit Amount. The ITC allowed on an asset.
J-1	J-1 Visa. Foreign national physicians who seek entry into US training programs must obtain an appropriate visa that permits clinical training activities. One visa commonly used by foreign national physicians is the J-1, a temporary nonimmigrant visa reserved for participants in the Exchange Visitor Program. As a public diplomacy initiative of the Department of State, the Exchange Visitor Program was established to enhance international exchange and mutual understanding between the people of the United States and other nations. In keeping with the program's goals for international education, J-1 exchange visitor physicians are required to return home for at least two years following their training before being eligible for other US visas.
JAHF	John A. Hartford Foundation. www.jhartfound.org
JAMA	Journal of the American Medical Association. jama.ama-assn.org
Joint Commission	Joint Commission evaluates and accredits nearly 17,000 health care organizations and programs in the United States. An independent, nonprofit organization, the Joint Commission is the nation's predominant standards-setting and accrediting body in health care. www.jcaho.org
JDRF	Juvenile Diabetes Research Foundation. www.jdrf.org
JGIM	Journal of General Internal Medicine. www.blackwellpublishing.com/journal.asp?ref=0884-8734
K01	K01 Research Scientist Development Award (NIH). Supports a scientist committed to research for both advanced research training and additional experience.
K02	K02 Independent Scientist Award (NIH). Provides support for newly independent scientists who need a five year period of intensive research focus to foster development as an independent scientist.
K06	K06 Research Career Awards (NIH). Enables institutions to fund positions favorable to the intellectual growth and research productivity of highly competent, established investigators for the duration of their careers.
K08	K08 Mentored Scientist Development Award (NIH). Supports the development of clinician research scientists. K08 supports comprehensive research experience leading to independence, replacing the old K08, K11, and K15 awards. Awards are from three to five years and may include didactic studies.
K12	K12 Mentored Clinical Scientist Development Program Awards (NIH). Supports clinicians in pediatrics (PSDP) and obstetrics and gynecology (RSDP) committed to careers in academic medicine. Duration is for five years.
K22	K22 Research Scholar Development Award (NIH). Provides start-up support for postdocs making the transition to assistant professors at an academic institution.

K23	K23 Mentored Patient-Oriented Research Career Development Award (NIH). Supports the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research.
K24	K24 Mid-Career Investigator Award in Patient-Oriented Research (NIH). Encourages established mid-career clinicians to devote time to patient-oriented research and to mentor beginning investigators. Eligiblility requires a clinical doctoral degree, patient-oriented research, independent research, mentoring, and need.
K25	K25 Mentored Quantitative Research Career Development Award (NIH). Supports junior faculty-level investigators with quantitative scientific and engineering backgrounds outside of biology or medicine who have the potential to integrate their expertise with biomedicine and develop into productive investigators with a period of mentored study and research.
K30	K30 Clinical Research Curriculum Award (NIH). Supports talented individuals in navigating the challenges of clinical research and provides them with the critical skills needed to develop hypotheses and conduct sound research. K30 is an award to institutions.
KFF	Kaiser Family Foundation. www.kff.org
KG, kg	Kilogram. 1,000 grams or 2.2 lbs; a metric measurement.
Kirsch	Kirsch Foundation. www.kirschfoundation.org/who/index_who.html
LA-6	Legal Alien Tax Status Form. Declaration of Tax Status form; required for all payments to non-US citizens, including travel reimbursement and honoraria.
LAN	Local Area Network. A network of personal computers in a small area (such as an office) that are linked by cable and can communicate directly with other devices in the network and share resources.
LAR	Legally Authorized Representative. A person or agent authorized under law to consent on behalf of another individual to participate in a clinical trial.
LCME	Liaison Committee on Medical Education. LCME is the national body that certifies medical schools. www.lcme.org
LCSB	Liaison Committee for Specialty Boards.
LCSW	Licensed Clinical Social Worker.
LDLT	Living Donor Liver Transplantation. A procedure in which a healthy, living person donates a portion of his or her liver to another person.
LIP	Licensed Independent Practitioner.
LOA	Leave of Absence. Taking an approved leave from work.
LOC	Level of Care. Amount of assistance required by consumers that may determine their eligibility for programs and services. Levels include protective, intermediate, and skilled.
LOC	Limitation of Costs. A mandatory clause for cost-reimbursement type contracts. Under the clause, the sponsor is not obligated to reimburse the contractor for costs in excess of the stated amount. The contractor, however, is not obligated to continue performance once expenses reach the stated amount.
LOI	Letter of Intent.
LOS	Length of Stay. A metric measuring the total number of days a patient is hospitalized.
LPN	Licensed Practical Nurse. A nurse who has enough training to be licensed by a state to provide routine care for the sick, with some restrictions on the level of care provided.
LRP	Loan Repayment Programs (NIH). www.lrp.nih.gov
LTA	Long Term Agreement. Negotiated between the government and an organization to allow a service center to price its services or to recover its expenses (break even) over a period of time longer than a year.

LTC	Long Term Care. The broad continuum of maintenance and health service for the chronically ill, disabled, or mentally challenged with services being provided on the inpatient, outpatient, group home settings, or at-home basis.
LTD	Long Term Disability. LTD is for a disability exceeding 90 days. LTD insurance coverage works with other sources of disability income to continue, for example, 50 percent or 2/3 of salary.
LVN	Licensed Vocational Nurse. A nurse who has graduated from an accredited school of practical (vocational) nursing, passed the state examination for licensure, and been licensed to practice by a state authority.
MBA	Masters of Business Administration. A graduate degree in business.
MBRS	Minority Biomedical Research Support (NIH). www.nigms.nih.gov/Minority/MBRS
MBWA	Management by Walking Around. Regularly walking through all office, lab areas, etc., to talk with employees, customers, custodians, and users.
MC	Mail Code.
MCAT	Medical College Admissions Test. Admissions test for medical schools. www.aamc.org/students/mcat/start.htm
MCCF	Medical Care Collection Fund. Third-party payer mechanism used by VA to bill insurance companies for care provided to veterans by the VA.
MCO	Managed Care Organization. A health care plan designed to provide medical services through groups of doctors, hospitals, and specialty providers.
MD	Doctor of Medicine.
MD/PhD	Doctor of Medicine/Doctor of Philosophy. Someone who has received both an MD and a PhD degree.
MEDICAID	Medical Aid. State administered health insurance program. Medicaid provides medical assistance for certain individuals and families with low incomes and resources. Eligibility is limited to individuals who fall into specific categories. cms.hhs.gov/medicaid/default.asp
MEDLINE	The National Library of Medicine's electronic catalog of medical literature. Includes information abstracted from journal articles including author names, journal source, publication date, and medical subject heading. www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed
MedlinePlus	Online medical dictionary. www.nlm.nih.gov/medlineplus/encyclopedia.html
MedPAC	Medicare Payment Advisory Commission (formerly PPRC and ProPAC). www.medpac.gov
MERIT	Method to Extend Research Award (NIH). Supports outstanding established scientists conducting significant research in areas of importance to the NIH. These awards are made to distinguished investigators who have a record of substantial contributions on the cutting edge of some field of neurological science and can be expected to be highly productive.
METRIC	Measurement Excellence and Training Resource Information Center (VA). www.mei.research.med.va.gov/index.asp
MFS	Medicare Fee Schedule.
MG, mg	Milligram. 1/1000 of a gram; a metric measurement.
MGMA	Medical Group Management Association. www.mgma.com
MHS	Military Health System. www.tricare.osd.mil
MICU	Medical Intensive Care Unit.
MIRECC	Mental Illness Research, Education, and Clinical Center (VA). www.mirecc.org

MKSAP	Medical Knowledge Self-Assessment Program.
MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003.
MOA	Memorandum of Agreement.
MOU	Memorandum of Understanding.
MPH	Master of Public Health. A graduate degree in public health.
MPPDA	Medicine-Pediatrics Program Directors Association. www.im.org/MPPDA
MREP	Merit Review Entry Program Award Program (VA). www.hsrd.research.va.gov/for_researchers
MRI	Magnetic Resonance Imaging. A procedure using a magnet linked to a computer to create pictures of areas inside the body.
MRS	Magnetic Resonance Spectroscopy. The study of alteration and interaction of magnetic sublevels where the salient spectral region is inclusive of wavelengths from long microwaves through radio frequencies.
MSDS	Material Safety Data Sheet. Forms designed to provide both workers and emergency personnel with the proper procedures for handling or working with a particular substance. MSDS includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill/leak procedures. Particularly useful if a spill or other accident occurs.
MSMP	Medical Specialties Matching Program. www.nrmp.org/fellow/index.html
MSPE	Medical Student Performance Evaluation.
MSTP	Medical Scientist Training Program.
MT	Medical Technology degree or certification.
MTA	Material Transfer Agreement. Short contracts governing the transfer of tangible research property (often biological materials) for in vitro research use.
MTDC	Modified Total Direct Cost. The base to which facilities and administrative (direct cost) rates are applied. MTDC consists of salaries, wages, fringe benefits, materials, supplies, services, and travel of subgrants and subcontracts up to the first $25,000 of each subgrant or subcontract (regardless of the period). Some costs such as equipment, capital expenditures, charges for patient care, tuition remission, rental costs, scholarships, fellowships, and portions of each subgrant and subcontract in excess of $25,000 are excluded from TDC to arrive at the MTDC base.
MTF	Military Treatment Facilities.
MTLF	Medical Technology Leadership Forum. www.mtlf.org
N/A	Not Applicable/Not Available.
NAASO	The Obesity Society. www.naaso.org/links.asp
NABR	National Association for Biomedical Research. www.nabr.org
NACUBO	National Association of College and University Business Officers. A nonprofit professional organization representing chief administrative and financial officers at more than 2,100 colleges and universities across the country. www.nacubo.org
NADS	National Association for Downs Syndrome. www.nads.org
NAHCR	National Association for Health Care Recruitment. www.nahcr.com
NAIC	National Association of Insurance Commissioners. www.naic.org
NAIP	National Association of Inpatient Physicians (now SHM). www.hospitalmedicine.org
NAP	National Academies Press. www.nap.edu
NAPCRG	North American Primary Care Research Group. www.napcrg.org

NAPH	National Association of Public Hospitals and Health Systems. www.naph.org
NARA	National Archives and Records Administration. www.archives.gov/index.html
NARRC	National Advisory Research Resources Council (NIH). www.ncrr.nih.gov
NARSAD	National Alliance for Research of Schizophrenia and Depression. www.narsad.org
NAS	National Academy of Sciences. www.nasonline.org
NASA	National Aeronautics and Space Administration. www.nasa.gov
NaSGIM	National Study of Graduate Education in Internal Medicine.
NaSIMM	National Study of Internal Medicine Manpower (now NaSGIM).
NASPGHAN	North American Society for Pediatric Gastroenterology, Hepatology and Nutrition. www.naspghan.org
NASULGC	National Association of State Universities and Land-Grant Colleges. www.nasulgc.org
NASS	North American Spine Society. www.spine.org
NAVBO	North American Vascular Biology Organization. www.navbo.org
NAVREF	National Association of Veterans' Research and Education Foundations. www.navref.org
NBER	National Bureau of Economic Research. www.nber.org
NBME	National Board of Medical Examiners. Responible for USMLE. www.nbme.org
NCBI	National Center for Biotechnology Information. www.ncbi.nlm.nih.gov
NCCAM	National Center for Complementary and Alternative Medicine. www.nccam.nih.gov
NCHS	National Center for Health Statistics. www.cdc.gov/nchs
NCI	National Cancer Institute. www.cancer.gov
NCID	National Center for Infectious Diseases. www.cdc.gov/ncidod
NCMHD	National Center on Minority Health and Health Disparities. www.ncmhd.nih.gov
NCQA	National Committee for Quality Assurance. www.ncqa.org
NCRR	National Center for Research Resources. www.ncrr.nih.gov
NCURA	National Council of University Research Administrators. www.ncura.edu
NCVHS	National Committee on Vital and Health Statistics. www.ncvhs.hhs.gov
NDA	New Drug Application. An application to FDA for a license to market a new drug in the United States.
NDA	Non Disclosure Agreement. A contract that restricts the disclosure of confidential information or proprietary knowledge under specific circumstances.
NDC	National Drug Code. A universal product identifier for human drugs. www.fda.gov/cder/ndc
NDMP	National Marrow Donor Program. www.marrow.org
NEH	National Endowment for the Humanities. www.neh.gov
NEI	National Eye Institute. www.nei.nih.gov
NEJM	The New England Journal of Medicine. www.nejm.org
NFCR	National Foundation for Cancer Research. www.nfcr.org
NFPA	National Fire Protection Service. www.nfpa.org
NGA	Notice of Grant Award.
NHCU	Nursing Home Care Unit (VA). A specialized nursing facility designed to care for patients with long-term illness requiring preventive, therapeutic, and rehabilitative nursing care services. Nursing, medical, and related health care is provided in a homelike environment with specialized clinical and diagnostic services available at the medical center facilities.

NHGRI	National Human Genome Research Institute. www.genome.gov
NHLBI	National Heart, Lung, and Blood Institute. www.nhlbi.nih.gov
NHPF	National Health Policy Forum. www.nhpf.org
NIA	National Institute on Aging. www.nia.nih.gov
NIAAA	National Institute on Alcohol Abuse and Alcoholism. www.niaaa.nih.gov
NIAID	National Institute of Allergy and Infectious Diseases. www.niaid.nih.gov
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases. www.niams.nih.gov
NIBIB	National Institute of Biomedical Imaging and Bioengineering. www.nibib.nih.gov
NICHD	National Institute of Child Health and Human Development. www.nichd.nih.gov
NIDA	National Institute of Drug Abuse. www.nida.nih.gov
NIDCD	National Institute on Deafness and Other Communication Disorders. www.nidcd.nih.gov
NIDCR	National Institute of Dental and Craniofacial Research. www.nidcr.nih.gov
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases. www.niddk.nih.gov
NIEHS	National Institute of Environmental Health Sciences. www.niehs.nih.gov
NIGMS	National Institute of General Medical Sciences. www.nigms.nih.gov
NIH	National Institutes of Health. The national steward of medical and behavioral research. NIH's mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability. NIH is composed of 27 institutes and centers. www.nih.gov
NIH Videocasting	National Institutes of Health Videocasting. www.videocast.nih.gov
NIHM	National Institute of Mental Health. www.nimh.nih.gov
NINDS	National Institute of Neurological Disorders and Stroke. www.ninds.nih.gov
NINR	National Institute of Nursing Research. www.nih.gov/ninr
NIOSH	National Institute for Occupational Safety and Health. www.cdc.gov/niosh
NIST	National Institute of Standards and Technology. www.nist.gov
NKF	National Kidney Foundation. www.kidney.org
NLM	National Library of Medicine. www.nlm.nih.gov
NLRB	National Labor Relations Board. www.nlrb.gov
NMA	National Medical Association. www.nmanet.org
NMDP	National Marrow Donor Program. www.marrow.org
NMF	National Medical Fellowships. www.nmf-online.org
NMSS	National Multiple Sclerosis Society. www.nmss.org
NOF	National Osteoporosis Foundation. www.nof.org
NOFA	Notice of Funding Available. Announcements that appear in the Federal Register, printed each business day by the US government, inviting applications for federal grant programs. fr.cos.com
NORD	National Organization for Rare Disorders. www.rarediseases.org
NP	Nurse Practitioner. A registered nurse (RN) who has additional completed advanced nursing education (generally a master's degree) and training in the diagnosis and management of common medical conditions, including chronic illnesses.
NPC	Non-Profit Research and Education Corporations. Authorized VA medical centers that establish non-profit research and education foundations.

NPCD	National Patient Care Database. A database of VHA services with four distinct sections: the Patient Treatment File, the Outpatient Care File, the IPDB, and the EDR. Researchers access extracts from the databases rather than drawing data from the NPCD itself.
NPDB	National Practitioner Data Bank. www.npdb-hipdb.com/npdb.html
NPI	National Provider Identifier. A standard unique identifier for health care providers mandated by the apdoption of the administrative simplification provisions of HIPAA.
NPMA	National Property Management Association. www.npma.org
NRC	National Research Council. www.nas.edu/nrc
NRC	US Nuclear Regulatory Commission. www.nrc.gov
NRL	Navy Research Laboratory. www.nrl.navy.mil
NRMP	National Resident Matching Program. National process to match all medical students and other applicants with hospitals to obtain internships and residencies. Applicants submit a confidential list to the NRMP ranking their desired place of residency. Participating hospitals also enter a confidential list of those most desired applicants. On a uniform date (mid-March), all of the applicants and hospitals are informed of the results of the match. www.nrmp.org
NRSA	National Research Service Award. grants1.nih.gov/training/nrsa.htm
NRSA	Ruth L. Kirschstein National Research Service Awards (NIH). grants.nih.gov/training/nrsa.htm
NSF	National Science Foundation. www.nsf.gov
NSTI	Nano Science and Technology Institute. An organization that promotes the integration of small technologies through education, technology and business development. http://www.nsti.org/
NTE	Not To Exceed.
NTIS	National Technical Information Service. www.ntis.gov
O&M	Operations and Maintenance (costs). O&M includes all operating and maintenance costs not accounted for elsewhere, including contracted research and development, fuel, facilities operating costs, rentals, and most services. It also includes personnel-related O&M postings, recruiting, training, education, professional development, and health care.
O, O-1 Visa	O Visa. For highly skilled and accomplished physicians and scientists who are not US citizens and who have job offers at medical or scientific research institutions, hospitals, and other organizations requiring the services of a highly skilled individual. www.mdgreencard.com/o_visa.html
OAA	Office of Academic Affiliations. www.va.gov/oaa
OAFM	Organization of Academic Family Medicine.
OAR	Office of AIDS Research. www.nih.gov/od/oar
OASH	Office of the Assistant Secretary for Health (PHS).
OB	Operating Budget. A fiscal plan detailing current programs including an estimate of proposed expenditures and the proposed means to finance them.
OBDC	Overhead Bearing Direct Costs.
OBSSR	Office of Behavioral and Social Sciences Research. obssr.od.nih.gov
OCLA	Office of Congressional and Legislative Affairs. www.va.gov/oca/meg.htm
OD	Office of the Director (NIH). www.nih.gov/about/almanac/organization/OD.htm
ODS	Office of Dietary Supplements (NIH). dietary-supplements.info.nih.gov

OER	Office of Extramural Research. The central source for general information about NIH grant programs and application procedures. grants1.nih.gov/grants/policy/emprograms/overview/about.htm
OFPP	Office of Federal Procurement Policy. www.whitehouse.gov/omb/procurement/index.html
OFR	Office of the Federal Register. www.archives.gov/federal-register
OGPP	Office of Generalist Physician Programs.
OHRP	Office for Human Research Protections. ohsr.od.nih.gov/
OHSR	Office of Human Subjects Research (NIH). www.nihtraining.com/ohsrsite
OIG	Office of Inspector General. oig.hhs.gov
OLAW	Office of Laboratory Animal Welfare. grants.nih.gov/grants/olaw/olaw.htm
OMB	Office of Management and Budget. Leads development of government-wide policy to assure that grants are managed properly and that federal dollars are spent in accordance with applicable laws and regulations. www.whitehouse.gov/omb
OMH	Office of Minority Health. Improves and protects the health of racial and ethnic minority populations through the development of health policies and programs that will eliminate health disparities. www.omhrc.gov/
ONR	Office of Naval Research. www.onr.navy.mil
OON	Out-of-Network. Services rendered by a provider that does not have a contract to offer a patient care. Typically, managed care plans are contracted with a panel of providers. If a patient seeks care out-of-network, he or she may be financially responsible for some or all of the care provided. An exception to this rule is emergency medical care.
OPDA	Organization of Program Directors Associations. www.cmss.org/index.cfm?p=display&detail=Organization%20of%20Program%20Directors
OPIM	Other Potentially Infectious Materials.
OPRR	Office for Protection from Research Risks. www.hhs.gov/ohrp
OPTN	Organ Placement and Transplant Network. www.optn.org
OR	Operating Room.
ORBD	Osteoporosis and Related Bone Diseases Center. www.osteo.org
ORD	Office of Rare Diseases. rarediseases.info.nih.gov
ORI	Office of Research Integrity. www.ori.dhhs.gov
ORL	Otolaryngology.
ORO	Office of Research Oversight. Formerly the Office of Research Compliance and Assurance (ORCA). www.va.gov/orca
ORR	Organization of Resident Representatives. www.aamc.org/members/orr/start.htm
ORWH	Office of Research on Women's Health. www4.od.nih.gov/orwh
OSA	Other Sponsored Activities. Academic projects funded by sponsors in which project activities involve the performance of work other than sponsored instruction or sponsored research. OSA may include travel grants; support for conferences or seminars; support for university public events; support for student participation in community service projects that do not result in academic credit; and support for projects pertaining to library collections, acquisitions, bibliographies, or cataloging programs to enhance institutional resources, including Data Center expansion and computer enhancements.
OSHA	Occupational Safety and Health Act (or Agency). www.osha.gov
OSP	Office of Science Policy. www1.od.nih.gov/osp
OSR	Office of Sponsored Research. An institution's pre- and post-award administration office.

OSTP	Office of Science and Technology Policy. www.ostp.gov
OTA	Office of Technology Assessment. www.gpo.gov/ota
OTC	Over-the-Counter. Medications sold legally without a prescription.
P&L	Profit and Loss Statement. A financial report documenting financial profit and loss for a program, division, department, etc.
P01	Program Project Grant (NIH). Supports an integrated, multiproject research approach involving a number of independent investigators who share knowledge and common resources. This type of grant has a defined central research focus involving several disciplines or several aspects of one discipline. Each individual project must contribute or be directly related to the common theme of the total research effort, thus forming a system of research activities and projects directed towards a well defined research project goal.
PA	Program Announcements. The process by which federal agencies publicize and implement new extramural grant programs and priorities or update existing programs.
PA	Physician Assistant. Practices medicine under the supervision of physicians and surgeons and is formally trained to provide diagnostic, therapeutic, and preventive health care services, as delegated by a physician.
PAFR	Patient Accepts Financial Responsibility. A form required to be signed by any patient who indicates they have insurance but do not have a proper authorization or referral for a certain medical procedure or office visit. Once signed, this form allows the provider to bill the patient directly if the patient's insurance denies payment due to lack of authorization or referral.
PAHO	Pan American Health Organization. www.paho.org
PBM	Pharmacy Benefit Management (VA).
PC	Personal Computer.
PCAST	President's Committee of Advisors on Science and Technology. www.ostp.gov/PCAST/pcast.html
PCO	Procurement Contracting Officer. Contracting officer or buyer who begins the acquisition process for an agreement; may assign the day-to-day administrative function to the Administrative Contracting Officer (ACO).
PCOC	Primary Care Organizations Consortium.
PCP	Primary Care Physician. A physician who specializes in pediatrics, family practice, or general internal medicine and has been selected by an individual from a list of primary care physician's in the patient's health care plan directory.
PDA	Personal Digital Assistant. A handheld device combining computing, telephone, fax, Internet, and networking features.
PDF	Portable Document Format. The PDF file format uses PostScript printer description language and is highly portable across computer platforms. PDF documents are created with Adobe Acrobat or other programs and can be viewed with Adobe Acrobat Reader and other PDF reader programs.
PDQ	Physician Data Query (NCI). www.cancer.gov/cancerinfo/pdq/cancerdatabase
PET	Positron Emission Tomography.
PEW	Pew Charitable Trusts. www.pewtrusts.com/grants
PFSH	Past Family or Social History. A patient's past experience with illnesses, operations, injuries, or treatments; reviews medical events in patients; and includes an age appropriate review of past and current social activities. Specifics about PFSH obtained and documented is dependent upon clinical judgment and the nature of the presenting problem.

PGY	Post Graduate Year.
PharmGKB	Pharmacogenetics and Pharmacogenomics Knowledge Base. www.pharmgkb.org
Phase I	Phase I clinical trial. A small-scale test of the safety of a new drug.
Phase II	Phase II clinical trial. Tests the safety and efficacy of a new drug on patients. Phase II trials typically involve a larger group of subjects than Phase I trials.
Phase III	Phase III clinical trial. If a drug looks promising in a Phase II clinical trial, it moves into Phase III to test the drug's safety and efficacy in a controlled setting. Phase III trials typically involve hundreds or thousands of subjects, depending on the therapeutic target.
PhD	Doctor of Philosophy. A doctoral degree. PhDs may be involved in clinical care (as in clinical psychology), biomedical research (as in the Genome Project), health administration, and other areas in medicine.
PHI	Protected Health Information. Individually identifiable health information that is created or received by a health care provider, health plan, employer, or health care clearinghouse and that relates to the mental or physical health of the individual, the provision of health care to the individual, or payment for the provision of health care to the individual. PHI does not include education records covered by the Family Educational Rights and Privacy Act or employment records held by a covered entity in its role as employer.
PHO	Physician-Hospital Organization. Owned jointly by a hospital and a physician group, the PHO contracts with hospitals and physicians for the delivery of services to payers under contract to the PHO. It can also provide management services and perform other services typically associated with an management services organization (MSO).
PhRMA	Pharmaceutical Research and Manufacturers of America. www.phrma.org/whoweare
PHR	Physicians for Human Rights. www.phrusa.org
PHS	Public Health Service (HHS). www.hhs.gov
PHS 2590	PHS 2590. The PHS non-competing grant progress report. grants.nih.gov/grants/funding/2590/2590.htm
PHS 398	PHS Grant Application 398. PHS grant application forms and instructions for competing research grants and cooperative agreements.
PHSA	Public Health Service Act. www.fda.gov/opacom/laws/phsvcact/phsvcact.htm
PI	Prevention Index. Assesses how well VHA follows nationally recognized approaches for primary prevention and early detection recommendations related to diseases with major social consequences.
PI	Principal Investigator. Responsible for ensuring that all laboratory personnel, including part-time students and visiting scientists, are properly trained and informed of the safety regulations as required by the university's health and safety policy and by various government regulatory agencies.
PICU	Pediatric Intensive Care Unit.
PIDS	Pediatric Infectious Diseases Society. www.pids.org
PIF	Program Information Form. A summary of a residency program's compliance with ACGME requirements. All residency programs must submit a PIF prior to a RRC site visit.
PIN	Provider Identification Number. Unique to each physician who has Medicare coverage.
PLA	Patent License Agreement. A legally binding agreement that gives certain rights to a licensee over patent rights.
PMS	Practice Management System. A computer information system designed to support all information requirements of a physician office, including registration, appointment scheduling, billing, and clinical documentation.
PO	Purchase Order. A form used to place an order for equipment, supplies, services, etc.

POCT	Point of Care Testing. Also known as Decentralized Testing or Near Patient Testing. POCT is performed by personnel outside the clinical laboratories, at the patient bedside.
POMR	Problem-Oriented Medical Record, a clinical record in which the data collected, the physician's assessment, and the proposed therapeutic plan are grouped by association with the patient's specified medical problems.
PORT	Patient Outcomes Research Teams.
Postdoc	Postdoctoral Fellow.
PPAC	Practicing Physicians Advisory Council. www.cms.hhs.gov/FACA/03_ppac.asp
PPG	Program Project Grant.
PPI	Preferred-Provider Insurance. In managed care, an insurance plan in which companies contract with large number of providers that are not otherwise related to one another.
PPO	Preferred Provider Organization. A health plan that allows care from any licensed provider and includes financial incentives—such as higher levels of reimbursement—to use the preferred network of contracted providers.
PPRC	Physician Payment Review Commission (now MedPAC).
PPS	Prospective Payment System. A health care financing method enabled by Congress in 1983 in which hospitals receive from CMS a fixed payment per hospital admission, adjusted by diagnosis-related groups.
PRIT	Physicians Regulatory Issues Team. www.cms.hhs.gov/PRIT
ProPAC	Prospective Payment Assessment Commission (now MedPAC).
PSI	Physician Service Income.
PT	Physical Therapist. A licensed therapist who treats injury or dysfunction with exercise and other physical treatments.
PTF	Patient Treatment File. An automated system for recording and tracking events associated with VHA inpatient care and the principal source of inpatient VHA workload data.
PTO	Personal Time Off. Time off with pay.
PTSD	Post-Traumatic Stress Disorder.
PUBMED	Publications Medical. Medical articles available via the NCBI Entrez retrieval system, developed by NCBI at NLM. www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed
PYB	Prior Year Balance. The amount carried forward from one fiscal year to the next for a service center whose year-end net balance (current income less current expense, (+/-) the prior year's net balance) is within (+/-) percentage of its annual expenditures.
Q&A	Questions and Answers.
QA	Quality Assurance. Steps taken to ensure that products or services are of sufficiently high quality. Planned and systematic actions are established to ensure that the trial is performed and the data are generated, documented, and reported in compliance with good clinical practice and the applicable regulatory requirement(s).
QC	Quality Control. The operational techniques and activities undertaken within the quality assurance system to verify that the requirements for quality of the trial-related activities have been fulfilled.
QI	Quality Improvement. The reduction of variability in products and processes.
QJSA	Qualified Joint and Survivor Annuity. Provides lifetime payments and, after death, payments to the spouse equal to a portion (usually 50 percent) of the decedent's monthly payment for the balance of his or her lifetime.

QMCSO	Qualified Medical Child Support Order. Either a National Medical Child Support Notice issued by a state child support agency, or an order or judgment from a state court or administrative body directing the employer to cover a child under the plan. Federal law provides that a QMCSO must meet certain form and content requirements in order to be valid.
QPSA	Qualified Pre-Retirement Survivor Annuity. The benefit paid to a surviving spouse or beneficiary if one dies before collecting retirement benefits.
QSP	Qualified Sponsorship Payment. Any payment made to a person engaged in a trade of business for which the person will receive no substantial benefit other than the use of or acknowledgment of the business name, logo, or product lines in connection with the organizations activities. Use or acknowledgement does not include advertising of the sponsor's products and services.
QUERI	Quality Enhancement Research Initiative (VA). www.hsrd.research.va.gov/research/queri
R&D	Research and Development. Discovering new knowledge about products, processes, and services and applying that knowledge to create new and improved products, processes, and services that fill market needs.
R01	Research Project Grant Award (NIH). Five years in length and is renewable. Supports discrete, specified, and circumscribed projects to be performed by named investigators in areas representing their specific interest and competencies.
R03	Small Grant Award (NIH). A nonrenewable award that provides limited research support, usually for preliminary, short-term projects.
R09	Scientific Evaluation Award (NIH). Provides the chair of an IRG funds for operation of the IRG.
R13	Conference Grant Award (NIH). Provides conference funding.
R15	Academic Research Enhancement Award (NIH). Supports scientists at eligible institutions for small-scale, new, or expanded health-related research projects such as pilot projects and feasibility studies; development, testing, and refinement of research techniques; secondary analysis of available data sets; and similar work showing research capability. This award is for smaller four-year public and private colleges and universities that provide undergraduate training for a significant number of research scientists but have had a limited share of NIH funds.
R18	Research Demonstration and Dissemination Award (NIH). Provides support to develop, test, and evaluate health services and foster the application of knowledge to control disease.
R21	Exploratory/Developmental Grant Award (NIH). Encourages new research in a given program area.
R24	Resource-Related Research Projects Award (NIH). Supports research projects to enhance the capacity of resources that serve biomedical research.
R34	Clinical Trial Planning Grant Award (NIH). Supports initial development of a clinical trial such as establishing a research team, developing tools for managing data, and overseeing the research and developing a trial design, protocol, recruitment strategies, and procedure manuals.
R37	Method to Extend Research In Time (MERIT) Award (NIH). Funding for long-term support to a limited number of investigators who are likely to continue to perform in an outstanding manner.

R43 and R44	Grant Awards for SBIR (NIH). Grants emanate from a congressionally mandated program to support cooperative R&D projects between small businesses and research institutions. Phase I grants (R43) support projects to establish the technical merit and feasibility of R&D ideas that may lead to commercial products or services. Phase II grants (R44) support in-depth development of those ideas.
RA	Regulatory Affairs. A dynamic and challenging profession that is vital to making safe and effective health care products available worldwide. RA encompasses a variety of disciplines and job responsibilities, which may begin during product development and continue into the time when a product is widely available for use. Individuals who ensure regulatory compliance and prepare submissions as well as those whose main job function is clinical affairs or quality assurance are considered RA professionals.
RAC	Regulatory Affairs Certification. www.raps.org/knowledgecenter/rac
RAF	Referral Authorization Form. Indicates a primary care medical group or primary care physician has approved or referred a patient for treatment by a specialist.
RAND	Research and Development Organization. www.rand.org
RAPS	Regulatory Affairs Professional Society. www.raps.org
RBRVS	Resource-Based Relative Value Scale. In 1992, the federal government established a standardized physician payment schedule based on a resource-based relative value scale (RBRVS). In the RBRVS system, payments for services are determined by the resource costs needed to provide them. The cost of providing each service is divided into three components: physician work, practice expense, and professional liability insurance. Payments are calculated by multiplying the combined costs of a service by a conversion factor (a monetary amount determined Congress and applied by CMS). Payments are also adjusted for geographical differences in resource costs. www.ama-assn.org/ama/pub/category/2292.html
RCA	Research Career Award (NIH).
RCMI	Research Centers in Minority Institutions Program. www.niaid.nih.gov/facts/mwhhp5.htm
RCO	Research Compliance Officer (VA).
RCPSC	Royal College of Physicians and Surgeons of Canada. rcpsc.medical.org
RCSA	Risk and Control Self-Assessment. A facilitator and a group with shared objectives review, prioritize, and address risks in an audit series closely aligned towards that mission.
rDNA	Recombinant DNA. Either molecules which are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell or DNA molecules that result from the replication.
REAP	Research Enhancement Award Program (VA). www.va.gov/hsrd/for_researchers/professional_development/center_development
REF	Research and Education Foundation.
RFA	Requests for Application (grants). The official statement inviting grant or cooperative agreement applications to accomplish a specific program purpose. RFAs indicate the amount of funds set aside for the competition and generally identify a single application receipt date.
RFP	Request for Proposals (contracts). Announcements that specify a research topic, methods to be used, product to be delivered, and appropriate applicants sought. Proposals submitted in response to RFPs generally result in the award of a contract.
RFQ	Request for Quotation. A summary of technical requirements for a specified product, sent to prospective vendors, and used by vendors to quote a price for the specified product.
RHIA	Registered Health Information Administrator. www.ahima.org/certification/rhia.asp

RMA	Return Material Authorization. Frequently used when equipment is returned to a vendor; the vendor will issue an RMA number for internal tracking purposes.
RN	Registered Nurse. An individual who has graduated from a college or university program of nursing education and has been licensed by the state.
RO	Regional Office (VA). The 58 VA regional offices, located in every state, Puerto Rico, and the Philippines, provide the first level of review within the VA claims system. ROs provide different services to veterans and each RO has different departments with specific responsibilities.
ROC	Request for Contracts. A formal document a contracting officer uses to begin preparing a request for proposals that follows the approval for a new acquisition or major change in an existing project.
ROI	Return on Investment. A measure of a corporation's profitability, equal to a fiscal year's income divided by common stock and preferred stock equity plus long-term debt. ROI measures how effectively the firm uses its capital to generate profit; the higher the ROI, the better.
ROS	Review of Systems. An inventory of body systems obtained through a series of questions seeking to identify signs or symptoms which the patient may have experienced, including constitutional symptoms (fever, weight loss, eyes, ears, nose, mouth, throat, cardiovascular, respiratory, gastrointestinal, genitourinary, musculoskeletal, integumentary, neurological, psychiatric, endocrine, hematologic/lymphatic, or allergic/immunologic).
RPA	Research Participation Agreement. A form of sponsored project in which services of university personnel, academic facilities, or laboratory equipment are employed on behalf of parties not otherwise affiliated with the university as faculty, staff, or students. An RPA is different from other forms of sponsored research projects in that a significant portion of the responsibility for the intellectual direction, interpretation, or outcome of the work rests with the outside user. Clinical trials whose funding is provided by a pharmaceutical company would fall into this category.
RPC	Review Policy Committee. A committee of senior peer review staff advising NIH on extramural review issues. It includes one voting member from each institute and several from the NIH Center for Scientific Review.
RPG	Research Project Grants. A budget term referring to the following NIH grant types: R01, R03, R21, R23, R35, R37, R41, R42, R43, R44, R55, P01, P42, U01, U19, U43, and U44. RPGs are research grants awarded to an institution. R series are single research project grants; P series are multi-project grants; and U series cooperative agreements can be either single project—U01, U43, U44—or multi-project—U19. Unlike a multi-project award, a single project award addresses a single research topic even if it involves multiple sites.
RQ	Resident Questionnaire.
RRC	Residency Review Committee. RRCs review and accredit GME programs and are part of the ACGME. www.acgme.org/acWebsite/navPages/nav_comRRC.asp
RRC-IM	Residency Review Committee for Internal Medicine. www.acgme.org/acWebsite/navPages/nav_140.asp
RSNA	Radiological Society of North America. www.rsna.org
RTF	Rich Text Format. A standardized way to encode various text-formatting properties, such as bold characters and typefaces as well as document formatting.

RVS	Relative Value Scale.
RVU	Relative Value Unit. Quantifies the relative work, practice expense, and malpractice cost for specific physician services to appropriately establish payment.
RWJF	Robert Wood Johnson Foundation. www.rwjf.org
RX, Rx	Prescription.
S&W	Salaries and Wages. Payments made to employees of the institution for work performed. When charged to a sponsored project, S&W become a subset of direct costs, which, along with wages, form a portion of the base upon which indirect costs will be allocated.
SAEM	Society for Academic Emergency Medicine. www.saem.org
SAGES	Society of American Gastrointestinal and Endoscopic Surgeons. www.sages.org
SAMSHA	Substance Abuse and Mental Health Associations. www.samhsa.gov
SAS	Statistical Analysis Software. www.sas.com
SBIR	Small Business Innovation Research Program. grants1.nih.gov/grants/funding/sbir.htm
SCCM	Society of Critical Care Medicine. www.sccm.org
SCI	Spinal Cord Injury.
SCOR	Specialized Centers of Research (NIH).
SCT	Society for Clinical Trials. www.sctweb.org
SCUP	Society for College and University Planning. www.scup.org
SEVIS	Student and Exchange Visitor Information System. A data collection and monitoring system that creates an interface between institutions of higher education, HHS, consulates and embassies abroad, and ports of entry. Schools are required to make regular electronic updates in SEVIS throughout each semester on the records of their enrolled students (and their dependents) in F-1 and J-1 status and their researchers and faculty in J-1 status. Updates include, but are not limited to, enrollment status, changes in address, changes in level of study, employment recommendations, and school transfers.
SFB	Society for Biomaterials. www.biomaterials.org
SGC	Society for Geriatric Cardiology. www.sgcard.org
SGE	Society of Gastroenterological Endoscopy.
SGER	Small Grants for Exploratory Research (NIH). Grants support preliminary research on untested and novel ideas, ventures into emerging research areas, application of new expertise or approaches to established research topics, research requiring urgent access to specialized data, facilities, or equipment, and similar efforts likely to catalyze rapid and innovative advances.
SGIM	Society of General Internal Medicine. www.sgim.org
SGO	Society of Gynecologic Oncologists. www.sgo.org
SHM	Society of Hospital Medicine (formerly NAIP). www.hospitalmedicine.org
SHRM	Society for Human Resource Management. www.shrm.org
SIR	Society of Interventional Radiology. www.sirweb.org
SLS	Society of Laparoendoscopic Surgeons. www.sls.org
SMDM	Society for Medical Decision Making. www.smdm.org
SNF	Skilled Nursing Facility. Primarily furnishes skilled nursing and rehabilitation services. It may be a separate facility or a distinct part of another facility, such as a hospital.
SNM	Society of Nuclear Medicine. interactive.snm.org
SNOMED	Systematized Nomenclature of Medicine Clinical Terms. www.nhsia.nhs.uk/snomed/pages/ct_snomed.asp?om=m1

SoCRA	Society of Clinical Research Associates, Inc. www.socra.org
SOGC	Society of Obstetricians and Gynecologists of Canada. sogc.medical.org
SOW	Statement of Work. Sponsored projects are typically awarded in response to a detailed SOW and commitment to a specified project plan. This SOW is usually supported by both a project schedule and a line-item budget, both of which are essential to financial accountability. The SOW and budget are usually described in a written proposal submitted by to the sponsor for competitive review.
SPORE	Specialized Programs of Research Excellence. spores.nci.nih.gov
SRA	Sponsored Research Agreements. Allows research funded by industry.
SRA	Society of Research Administrators International. www.srainternational.org
SRG	Scientific Review Group. A chartered committee that performs the first level of peer review.
SSA	Social Security Administration. www.ssa.gov
SSCI	Southern Society for Clinical Investigation. www.ssciweb.org
SSDI	Social Security Disability Insurance. A system of federally provided payments to eligible workers (and in some cases, their families) when they are unable to continue working because of a disability. Benefits begin with at the sixth full month of disability and continue until the individual is capable of substantial gainful activity.
SSF	Specialized Service Facility. Per OMB A-21, a SSF involves the use of highly complex or specialized facilities, such as the Veterinary Service Center (VSC). The cost of such a service shall normally consist of both its direct costs and its allocable share of indirect costs.
SSN	Social Security Number. An unique number assigned to an individual used for the US Social Security Program as well as an identifier used by many other institutions and places. To receive a SSN, an individual must prove his or her age, identity, US citizenship, or lawful alien status.
stat	Immediately.
STD	Short Term Disability. A disability lasting fewer than 90 days.
STFM	Society of Teachers of Family Medicine. www.stfm.org/index_ex.html
STS	Society of Thoracic Surgeons. www.sts.org
STTR	Small Business Technology Transfer. grants1.nih.gov/grants/funding/sbir.htm
SWOT	SWOT Analysis. A form of business analysis examining proposed action for strengths, weaknesses, opportunities, and threats.
T&C	Terms and Conditions.
T&M	Time and Materials. A revenue accrual and billing method that calculates revenue and billing as the sum of the amounts from each individual expenditure item.
T32	T32 Institutional Research Training Grants. grants1.nih.gov/grants/guide/pa-files/PA-02-109.html
T35	T35 Short-Term Institutional Research Training Grants. grants1.nih.gov/grants/guide/pa-files/PA-05-117.html
T90	T90 Training for a New Interdisciplinary Research Workforce. grants1.nih.gov/grants/funding/t90.htm
TA	Teaching Assistant. TAs help with student instruction. Some duties may include grading, leading review sessions, holding office hours, leading trips, writing exams, generating course web sites, and other assignments assigned by the TA supervisor. In return, the TA usually receives some salary or tuition subsidy.

TAGME	Training Administrators of Graduate Medical Education. www.tagme.org
TDA	Tax Deferred Annuity. TDA plans are a defined retirement contribution plan in which before-tax contributions are invested in investment funds selected by the employee.
TDC	Total Direct Costs. All direct costs expensed to a sponsored project (not including facilities and administration or indirect or overhead rates).
TES	The Endocrine Society. www.endo-society.org
THOMAS	Thomas Database. thomas.loc.gov
TN Visa	TN Visa. travel.state.gov/visa/temp/types/types_1274.html
TOEFL	Test of English as a Foreign Language. Required examination for graduate school applicants whose native language is not English. www.ets.org/toefl
TPA	Third Party Administrator. An entity that processes health care claims and performs related business functions for a health plan.
TQM	Total Quality Management. A structured system for satisfying internal and external customers and suppliers by integrating the business environment, continuous improvement, and breakthroughs with development, improvement, and maintenance cycles while changing organizational culture.
TRICARE	TRICARE. US military health system (formerly CHAMPUS). www.tricare.osd.mil
TRP	Tangible Research Property. Promotes the prompt and open exchange of tangible items produced in the course of research projects with scientific colleagues outside the investigator's immediate laboratory. TRP may include biological materials, engineering drawings, computer software, integrated circuit chips, computer databases, prototype devices, circuit diagrams, equipment, and associated research data.
TRVU	Total Relative Value Unit. TRVU is the sum of WVU and overhead plus malpractice RVU, which assigns a weighted value to measure time, space, staff, expense, etc., required to provide a medical service.
U01	U01 Research Project Cooperative Agreement. grants1.nih.gov/grants/oer.htm
U13	Conference Cooperative Agreement Award. grants1.nih.gov/grants/funding/r13/index.htm
U19	U19 Research Program Cooperative Agreement. grants1.nih.gov/grants/oer.htm
UA	Urinalysis. Visual, chemical, and microscopic examination of urine sample (clean catch or catheterized).
UCP	United Cerebral Palsy Association. www.ucpa.org
UCR	Usual, Customary, and Reasonable. Charges for health care services in a geographical area that are consistent with the charges of identical or similar providers in the same geographic area.
UHC	University HealthSystem Consortium. An alliance of the clinical enterprises for 87 academic health centers. www.uhc.edu
UHID	Unique Health Identifier. One identification number used for all health care services, unique to each individual. Currently under consideration. www.cms.hhs.gov/media/press/release.asp?Counter=946
UNOS	United Network for Organ Sharing. www.unos.org
UPIN	Unique Physician Identification Number. The Medicare billing and identification number specific to individual providers (follows the provider for life of career).
UPS	Uninterruptible Power Supply. UPS units protect equipment from power surges and provide a short-term power supply to allow proper shut down of equipment after an outage.

UR	Utilization Review. Programs designed to reduce unnecessary medical services, both inpatient and outpatient. UR may be prospective, retrospective, concurrent, or in relation to discharge planning.
URL	Uniform Resource Locator. Address of a web page (e.g., www.im.org).
USAID	United States Agency for International Development. www.usaid.gov
USC	United States Code. law2.house.gov/download.htm
USDA	United States Department of Agriculture. www.usda/gov
USDOJ	United States Department of Justice. www.usdoj.gov
USGS	United States Geological Survey. quake.wr.usgs.gov
USIA	United States Information Agency. usinfo.state.gov
USIMG	United States International Medical Graduate.
USMG	United States Medical Graduate.
USMLE	United States Medical Licensing Examination. Sponsored by FSMB and NBME, results of USMLE are reported to medical licensing authorities in the United States and its territories for use in granting the initial license to practice medicine. USMLE's three steps assess a physician's ability to apply knowledge, concepts, and principles that are important in health and disease and that constitute the basis of safe and effective patient care. www.usmle.org
USN	United States Navy. www.navy.mil
USPS	United States Postal Service. www.usps.com/welcome.htm
VA	Department of Veterans Affairs. VA was established on March 15, 1989, to succeed the Veterans Administration. VA is responsible for providing federal benefits to veterans and their dependents. www.va.gov
VACRNA	Association of VA Nurse Anesthetists. www.vacrna.org
VAHCS	United States Veterans Administration Health Care System.
VA R&D	VA Research and Development. www1.va.gov/resdev
VACO	Veterans Administration Central Office. Directs the activities of the various VA regional offices (ROs) and VAMCs nationally. VACO provides ROs and VAMCs with standard rules and procedures required for handling claims. VACO consists primarily of VBA and VHA. Other departments in VACO include the National Cemetery system, the Office of the General Counsel, and the Office of the Inspector General.
VAHQ	Veterans Administration Headquarters. VAHQ allocates resources based on enrollment statistics.
VAMC	Veteran Administration Medical Center.
VAT	Value-Added Tax. www.revenue.ie/services/tax_info/vatinfo.htm
VBA	Veterans Benefit Administration. www.vba.va.gov
VDI	Voluntary Disability Insurance. A state benefit program for disabled employees.
VEOA	Veterans Employment Opportunities Act. Federal law allowing eligible veterans to apply for positions advertised under an agency's Merit Staffing Program. hroffice.nrl.navy.mil/jobs/veoa.htm
VERA	Veterans Equitable Resource Allocation. VERA is a formula for the allocation of for the allocation of funds appropriated to VA for medical care to different geographic regions of the country and for other purposes.
VHA	Veterans Health Administration. Manages health benefits for US armed forces veterans and eligible dependents. www1.va.gov/health_benefits
VHA	Voluntary Health Agencies.

VIReC	VIReC. A VA Health Services Research and Development (HSR&D) Service Resource Center. www.virec.research.med.va.gov
VISN	Veterans Integrated Service Network. www1.va.gov/directory/guide/home.asp?isFlash=1
VistA	Veterans Health Information Systems and Technology Architecture. www.worldvista.org
VPS	Volume Performance Standard. A congressionally authorized system for paying for Medicare physicians' services, intended to control volume.
VQE	Visa Qualifying Examination. Foreign medical graduates must pass this exam to participate in clinical activities in the United States.
VRA	Veterans Readjustment Appointment. www.niehs.nih.gov/omhrmb/procedur/vra.htm
VSO	Veteran Service Organization. www1.va.gov/vso
VSS	Veteran Satisfaction Survey. A non-VA benchmark survey tool used by the nonprofit Picker Institute for Patient-Centered Patient Care, measuring problem rates related to standardized dimensions of care: patient education, visit coordination, and pharmacy wait times.
W2, W-2	A tax form prepared by an employer and given to an employee to be filed with his or her 1040 form, listing wages earned during that year, federal and state taxes withheld, and Social Security tax information.
W4, W-4	Employee Withholding Allowance Certificate.
W7, W-7	Application for IRS Individual Taxpayer Identification Number. A tax form used by individuals who are not US citizens, nationals, or permanent residents. The form is used to obtain a US taxpayer identification number.
W8, W-8	Certificate of Foreign Status of Beneficial Owner. This form is used to provide a paying institution with a person's Taxpayer Identification Number and Certification. For use by individuals who are not US citizens, nationals, or permanent residents.
W9, W-9	Application for an IRS Individual Taxpayer Identification Number.
WHCM	Women in Health Care Management. www.whcm.org
WHI	The Women's Health Initiative. www.nhlbi.nih.gov/whi
WHO	World Health Organization. www.who.int/en
WOC	Without Compensation.
wRVU	Work Relative Value Unit. A means to determine equal value to a wide variety of clinical procedures and tests. wRVU accompanies a CPT code to provide a weighted value to measure provider time, complexity, and expertise required to perform a medical service. The wRVU is added to the sum of overhead and malpractice RVU to create the Total Relative Value Unit (tRVU) and to assign a weighted value to measure the time, space, staff, expenses, etc., required to provide a medical service.