Leading an Academic Medical Practice

Lee Bach Lu Ernie-Paul Barrette Craig Noronha Halle G. Sobel Daniel G. Tobin *Editors*





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Foreword

The Society of General Internal Medicine (SGIM) is pleased to offer our endorsement and support for this outstanding book. *Leading an Academic Medical Practice* had humble beginnings; in 2002, members of the SGIM Medical Resident Clinic Directors Interest Group presented a workshop about how to be an effective clinic director at our Annual Meeting. This consensus-based effort evolved into a more formal "orientation manual" for clinic directors that was shared internally with SGIM members in 2003. The orientation manual was extremely well-received, and our members asked that it be expanded and updated. This enthusiasm in part reflected the increasing complexity of the academic, regulatory, clinical, and administrative aspects of care delivery in outpatient academic medicine. There was also a strong belief that this new resource should maintain a pragmatic focus but also be more robust and evidence-based. Beginning in 2015, SGIM members Lee Lu, Ernie-Paul Barrette, Craig Noronha, Halle G. Sobel, and Daniel Tobin led the effort to realize this vision as a team of co-editors.

This book is not an "official" statement of practice standards from SGIM. However, the writing and editorial process involved extensive peer review and represents the culmination of years of work from the authors and editors in collaboration with Springer and members of SGIM. We are pleased to see this grassroots effort culminates in this outstanding product, one that will provide considerable benefit to those who lead outpatient general internal medicine clinics along with their learners and patients.

About Us: SGIM is a national medical society of over 3,000 physicians who represent the general internal medicine faculty of every medical school and major teaching hospital in the United States. SGIM members teach medical students, residents, and fellows how to care for adult patients. They also conduct research intended to foster comprehensive coordinated care of adult patients across ambulatory and hospital settings, including preventive measures and treatment services. You can learn more about our organization, our mission, and our members by visiting us online at http://www.sgim.org/.

Preface

"Dream the impossible because dreams do come true."

Elijah Wood

As I prepare writing the preface for this book, I find myself still in disbelief that I am doing it. As one of the "boat people," escaping from an oppressive government regime and arriving to the United States, a teenager with one set of clothes and no knowledge of the language of this new country, I never dreamt of becoming a physician, a teaching professor, and a medical director and certainly not an editor of a book. The United States is truly a land of opportunities. I am proud to be an American!

After working for a few years as clinic faculty at Michael E. DeBakey Veterans Affairs (MED VA) Medical Center in Houston affiliated with Baylor College of Medicine, an opportunity came unexpectedly in the year 2003. I was offered the job of being the resident clinic director for the MED VA Internal Medicine Resident Continuity Clinic. I was hesitant at first, but after a lengthy consideration, I accepted the job. Having never been in this type of position before, I was clueless on what to do. My main focus was to make sure the internal medicine residents assigned to my clinic received a great education. Advised by one of my colleagues, I attended the Society of General Internal Medicine (SGIM) Medical Resident Clinic Director Interest Group (MRCDIG) at the national meeting. At that meeting, I met Dr. Mohan Nadkarni, the lead of this interest group. He and his colead Dr. David C. Dugdale put together the Medical Resident Clinic Director's "Orientation Manual" in September 2003. Despite having this interest group to provide me with some guidance, I was yearning for more. I wanted a comprehensive manual on how to effectively lead my clinic.

As our healthcare system evolved, more administrative responsibilities were being added to my job (e.g., having to deal with quality indicators, the patient volume, the no-show rate, patient satisfaction, etc.). In 2006, I joined a community system for the underserved, now known as the Harris Health System (HHS) which is affiliated with Baylor College of Medicine (BCM), and in 2010, I became the medical director of a Harris Health primary care/specialty clinic working with physicians from both Baylor College of Medicine and the University of Texas Health Science Center at Houston.

As a physician, I always try my best to follow the teaching of Sir William Osler who once said, "The practice of medicine is an art, not a trade; a calling, not a business...." With all the changes in our healthcare system, many academic physicians are drifting away from Sir Osler's teaching and are inevitably forced to deal with the business aspect of medicine such as work relative value units (wRVUs) and patient volume. In May 2011, Dr. Mohan Nadkarni passed his baton and appointed me the cochair of MRCDIG. The evolution of our healthcare system continues to impose more mandates and regulations, and having a manual to provide guidance to clinic/ medical directors is essential. With this in mind, SGIM MRCDIG has updated and produced a guide on how to lead a successful academic medical practice. This book will cover many topics spanning from the clinic director's roles, faculty recruitment, resident clinic requirements, academic clinic workflow, and education to quality improvement, Veterans Affairs clinic, and model of care delivery. We hope the content of this book will benefit leaders in an academic medical practice/institution and serve as a comprehensive guide with key clinical and administrative components on how to manage and lead a practice. The manuscript will describe an overview of the administrative challenges encountered when leading an academic medical practice; detail core clinic director roles and responsibilities; offer guidance to support, supervise, and improve faculty and trainee performance; provide strategies to effectively overcome common clinical and academic workflow challenges; and deliver a flexible resource that can be used across a variety of clinical and academic settings and models of care delivery.

I am fortunate to have found 35 national leaders and contributors with years of experience and expertise, and one of the authors, Dr. Mohan Nadkarni, is the original editor of the "clinic orientation manual." I appreciate their enthusiasm and devoted effort in this project. In this journey, I have recruited four co-editors, Drs. Ernie-Paul Barrette, Craig F. Noronha, Halle G. Sobel, and Daniel Tobin, to assist me, and I am grateful for their partnership and contributions. Lastly, I want to thank SGIM for their support!

For leaders, some obstacles may seem impossible to overcome; however, as one of the samurai of the Saga Domain Yamamoto Tsunetomo quoted, "Nothing is impossible in this world. Firm determination, it is said, can move Heaven and Earth...."

Houston, TX, USA

Lee Bach Lu

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Part I Clinic Director and Faculty

Chapter 1 Clinic Director Roles and Expectations



Halle G. Sobel and Mark E. Pasanen

Introduction

The ambulatory clinic is a critical learning venue for internal medicine residents to master the skills necessary to provide outstanding care in an outpatient environment. The resident clinic director oversees the ambulatory clinic and focuses on the clinical and educational missions for residents, patients, and faculty. It is the goal of the ambulatory clinic director to foster resident training that ensures residents gain the knowledge and skills necessary to practice independently in an outpatient setting and within an inter-professional team. This includes making sure residents become exposed to and skilled in varied areas of medicine, including chronic disease management, preventative care, mental healthcare, substance abuse, acute care, and population management. The clinic director must keep up with the changing and challenging landscape of medicine and be a champion of quality improvement and patient safety. This typically involves understanding the patient-centered medical home (PCMH) and National Committee for Quality Assurance (NCQA) standards that apply to primary care settings [1]. The clinic director works closely with faculty preceptors and clinic staff to create a positive experience for residents that balances education and service. In addition, she/he is a liaison to the residency program director and associated staff [2].

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Learning Objectives

- 1. Understand the position requirements for a residency clinic director.
- 2. Recognize accountabilities for the residency clinic director, including clinical, academic, quality, and administrative missions.

Outline

- Position Requirements
- Accountabilities
 - Clinical Mission
 - Academic Mission
 - Quality Mission
 - Administrative Mission

Position Requirements

The resident clinic director may be a role served by individuals in different positions across institutions, but all should be certified by the American Board of Internal Medicine [2]. For example, he/she might be a core faculty member, an associate program director or the medical director of a clinic. Because of the somewhat nebulous definition of the role, the salary support often varies from institution to institution as well as the protected time allotted.

It is good practice to ensure that the resident clinic director has significant experience in resident precepting in an outpatient setting, previous participation in resident educational conferences, and strong leadership skills. In addition, it is important that this individual have excellent communication and problem-solving skills to handle challenges that invariably come up. Experience in curriculum development, resident assessment, quality improvement, panel management, and primary care research are also desirable traits. However, recruiting other faculty members to aid in tasks is often necessary, making strong organizational skills essential. The ability to handle residents, staff, and patient complaints pertinent to the resident clinic in a productive and constructive approach is another critical attribute. Continuity clinic staff should enjoy working in a resident clinic environment and understand the need to balance the educational and patient care missions. Team-based care should be modeled and taught with a patient-centered approach [3].

From an administrative standpoint, he/she will frequently meet with program administration to ensure that patient care and educational goals are aligned and that the Accreditation Council for Graduate Medical Education (ACGME) requirements are met [4]. This will often involve active engagement in the residency infrastructure, including potential participation in Program Evaluation and/or the Clinical

Competency Committee (CCC). He/she will also collaborate with faculty and the section chief to make sure the expected relative value units (RVUs) and/or educational value units (EVUs) are achieved (further discussed in chapter "Outpatient Billing and Coding").

Principle Accountabilities

Clinical Mission

During the academic cycle, the clinic director or delegate starts the year by orienting the new interns and residents to the clinic. This often includes arranging for additional electronic health record training that may not be part of the overall graduate medical education (GME) orientation. Residents meet the staff and become familiar with both the structure and the day-to-day operations of the clinic. Some programs may choose to have ambulatory intern "boot camps" to orient residents to the clinic [5]. Although residents learn the majority of the clinic processes once they start seeing patients in the clinic, they clearly benefit from a well-organized orientation. Graduating resident panels are often assigned to the new PGY-1 or PGY-2 panels during June/July of the academic year [6]. This ambulatory handoff process is a necessary function of the clinic to ensure that patients' continuity of care is maintained through this time of transition, a key component of high-quality care [7].

As the academic year progresses, the clinic director may serve as the point person when clinic protocols develop or change to make sure all the residents can function well within an ever-evolving system. The clinic director often supervises resident activities that require an attending attestation such as anticoagulation encounters, prior authorization paperwork, and durable medical equipment forms. Given their role as a preceptor in the clinic, the director can also serve as a point person for residents, patients, faculty, and staff on feedback for issues that arise. It is common for resident clinic directors to oversee panel management activities and provide oversight to result follow-up, chart documentation, consultations, and other tasks that may fall through the cracks when the resident is out of clinic. Some clinic directors may set up a resident coverage system to manage results and messages by residents in the clinic for residents who are out of the clinic. The clinic director should recruit and orient faculty preceptors to ensure residents work with faculty who are dedicated to the educational and clinical mission of the clinic [2].

Academic Mission

Although patient care is often the focus of the resident continuity clinic experience, making sure that there is a strong educational program is critical. He/she often directs the resident outpatient conference series, which require curriculum development, faculty recruitment, and faculty development to ensure a robust curriculum. This may include didactic experiences, small group workshops, resident-led presentations, self-study with electronic resources, quality improvement activities (discussed in chapter "Ambulatory Curriculum Design and Delivery for Internal Medicine Residents"), and panel management (discussed in chapter "Maximizing Continuity in Continuity Clinic"). The academic offerings of the clinic must undergo consistent assessment, based on ongoing evaluation and feedback by the learners.

For residency programs that offer a primary care track, the clinic director may coordinate the offerings of this track and should help support these residents with particular interest in primary care. Some institutions have a primary care program director who would then work with the clinic director to coordinate electives and academic conferences for the primary care residents. Recent studies have shown that the likelihood of entering a general internal medicine career may be linked with satisfactory experiences in the ambulatory continuity clinic [8].

Quality Mission

The clinic director must follow NCQA guidelines to meet accreditation requirements for the PCMH and familiarize residents with these principles. In addition, features of ongoing primary care transformation which occurs in the patientcentered medical home must be openly discussed with residents, with the clinic director ensuring compliance within this system of care [1]. These efforts will guide curriculum development and learner assessment in the medical homes. Competencies and entrustable professional activities (EPAs) are tied to many of the clinical tasks, which can be observed and integrated into feedback [9].

With the increasing presence of accountable care organizations (ACOs) and additional available metrics, the clinic director or faculty may review clinical data such as Healthcare Effectiveness Data and Information Set (HEDIS) indicators (see chapter "Maximizing Continuity in Continuity Clinic"), patient volume, no show rate, cycle time, and patient satisfaction surveys. Additionally, it is important to participate in implementation plans to meet clinic goals based on these metrics such as diabetes and hypertension management. It is essential for the clinic director to foster a safe environment for quality initiatives and be prepared to innovate and adjust clinic experiences for their trainees in the ever-changing landscape of medicine.

Administrative Mission

In addition to the clinical, academic, and quality missions, it is important to recognize the administrative expectations of the position. A basic working knowledge of accepted principles of accounting and care business management skills can be helpful. For instance, the residency clinic director must negotiate with clinic administration to assure the clinic has a sufficient number of exam rooms, equipment, and supplies. They must also advocate for acceptable clinic staffing, including nursing and assistants along with adequate access to social work, case management, and pharmacy. He/she must effectively interface with the program director to assure timely clinic schedules and to minimize disruptions to the continuity experience. As noted above, it is also critical to negotiate appropriate support and protected administrative time for the clinic director position and to assure that productivity expectations are achievable. They must provide support to the other preceptors, including assistance in delivering feedback and remediation as well as offering mentoring for junior faculty.

Conclusion

For a successful clinic experience, the medical resident clinic director should be an individual with a mastery of patient clinical care, residency education, and office practice management [2]. With approximately one-third of residency time spent in the ambulatory setting, a positive clinical and educational experience is a key component of residency training and can also promote interest in primary care.

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Chapter 2 Supervising and Supporting Faculty



Alaka Ray, Priya Radhakrishnan, and Halle G. Sobel

Introduction

Academic faculty are integral to the clinical and medical education in an academic medical practice. A well-structured general internal medicine clinic requires the active engagement of faculty under strong leadership of the clinic director.

Academic clinics vary in size, scope, and academic affiliations. There are 400 internal medicine residency programs, with 25,828 internal medicine residents in the United States [1]. The clinics that support the categorical internal medicine programs have various academic affiliations, with the majority being hospital-based. The sponsoring institutions include universities, academic medical centers, community based hospitals, community health centers and the Veterans Affairs. Residency clinics are based in a wide variety of settings: community health centers, federally qualified health centers, and private practice settings. The geographical locations may be urban, suburban or rural and include an underserved population. According to the Society of General Internal Medicine Medical Resident Clinic Director Interest Group (MRCDIG) 2017 survey, 72% of resident clinics were in an urban setting and 18% suburban [2].

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© Springer International Publishing AG 2018 L.B. Lu et al. (eds.), *Leading an Academic Medical Practice*, https://doi.org/10.1007/978-3-319-68267-9_2 The clinic director has many responsibilities ranging from overseeing patient care and resident education, to many administrative and financial elements of the clinic. Many academic clinics are teaching clinics with residents supervised by precepting faculty, but are also the site where these faculty see their own patients. Faculty members can range in clinical effort from part-time to full-time. Some part-time faculty may have limited clinical responsibilities with significant administrative and/or research commitments. It is the clinic director's role to support all of these diverse physicians.

Learning Objectives

- 1. Learn about the nuances of supervision of clinical work, including scheduling and coverage.
- 2. Understand the role of the clinic director in the supervision of academic work including developing and supporting scholarship.
- 3. Review the role of preceptors in an academic resident clinic.

Outline

- Academic Faculty Management
 - Outlining expectations
 - Part-time vs. full-time
 - Compensation and Productivity Goals
 - Scheduling
 - Clinic and Call Coverage
- Team Management
 - Advanced Practice Providers
- Supervision of Academic Work
- Management of Preceptor Faculty
 - Responsibilities

Clinical supervision Clinic Operations Clinical Coverage

- Qualifications and Skills Development
- Compensation

Academic Faculty Management

Outlining Expectations

In many institutions, the clinic director is directly responsible for the faculty who work in the clinic. In some university-based institutions, this responsibility may lie with the section chief of the division or the chair of the department. Regardless, the clinic director plays a role in interacting with the faculty on a regular basis and for being directly responsible for overseeing the faculty preceptor schedule and faculty development with regard to precepting. To ensure excellent clinical supervision and teaching, it is recommended that residents, and possibly clinic staff, evaluate the precepting faculty. The clinic director must work closely with the resident program administration to discuss any issues which arise with faculty preceptors.

It is important for the clinic director and each faculty member to be aware of the productivity metrics. The clinic structure should have a method for reviewing this information with the faculty member on a periodic basis. Productivity metrics should be available to the faculty on a monthly basis to allow faculty members to adjust their schedules to meet productivity requirements. This allows the practice to plan for adequate staffing. Goals for faculty members are dependent on many factors and organizational priorities and often include accountable care objectives, education, research priorities, and quality initiatives. Staying well informed and having input in the organizational and departmental initiatives and priorities are an important task for the clinic director and enable him/her to advocate for faculty in a methodical manner.

Ideally, during the on-boarding process for new faculty, the clinic director and the program director provide input to the chair or similar leadership regarding roles and responsibilities as to the expected number of clinical sessions and educational sessions in the teaching clinic. For full-time and regularly scheduled preceptors, it is helpful to include quality improvement responsibilities given the need for clinical champions for quality initiatives.

The clinic director should consider a formal document outlining expectations for faculty preceptors and can enlist the support of residency program leadership for this task.

Part-Time vs. Full-Time

According the MRCDIG 2017 survey [2], out of 40 respondents, over 77.5% stated that their faculty precept less than 5 sessions a week on average. In the authors' experience, academic clinics vary in the structure and faculty expectations in their clinical and educational roles [3]. The clinic director and support staff should develop a system to manage the preceptor schedules and ensure sufficient clinical coverage. It is important for the clinic director to build a culture of wellness and collaboration so that faculty members are encouraged to cover each other [4, 5].

Compensation and Productivity Goals

Faculty productivity is essential for academic medical centers striving to achieve excellence and national recognition. Most academic departments measure relative value units (RVUs), and some may measure educational value units (EVUs) [6–9]. According to the MRCDIG 2017 survey, the annual productivity expectations for full-time faculty are around 4000 relative value units (RVUs) with the range 2500-5520 [2]. The clinic director is an integral part of the financial success of the institution and should oversee correct billing and coding practices by faculty preceptors. Academic internal medicine clinics are often represented as "loss centers" for hospitals and sponsoring institutions. The clinic director's role includes understanding the operating dashboards, expenses, revenue, and productivity metrics. Most clinics have administrative leaders such as clinic managers or operational managers who are responsible for day-to-day management. However, understanding the finances of the clinical operations is particularly important for the clinic director. Several professional organizations such as Medical Group Management Association (MGMA), American Medical Group Association (AMGA), and Alliance for Academic Internal Medicine have resources for understanding dashboards and indepth financial education [7, 10, 11].

Most academic institutions use relative value units (RVUs), billing charges, patients per session, or other encounter standards as a measure of clinical productivity. The academic and administrative work may be compensated based on an hourly rate or a percentage of salary. Some institutions use educational value units (EVUs) to measure and quantify the educational work that academic faculty perform [12]. A simple measure may be the number of visits per day for the entire clinic. Since numbers of patients fluctuate on a seasonal basis as does the availability of physicians, the clinic director is able to plan on staffing as well as outreach based on projected volumes. For example, to ensure that productivity targets are met and quality measures are addressed, some clinics develop their wellness visits during the summer or holiday months when visit volumes can be lower, leading to sustained numbers of patients.

There are an increasing number of organizations that include quality and patient satisfaction measures in the physician compensation structure. The clinic director often also plays the role of the quality director in smaller clinics and serves as the liaison between faculty and administration on the quality targets.

Review of clinical productivity during regularly scheduled staff meetings is essential to engage the physicians and the staff in the financial success of the clinic and the organization at large. Since financial education is often not a priority in residency education, it is not unusual for faculty to have gaps in their knowledge. Having sessions devoted toward improving the faculty understanding of the finances of the clinics may improve engagement and ownership of the process.

The clinic director or a delegate should work with the departmental leadership to understand dashboards such that the faculty can monitor their own performance. It is not unusual for clinic directors to inherit "legacy" faculty who have traditionally been allotted time for administrative or educational duties that are no longer high priorities. In such cases, having a dashboard which takes into account educational and research metrics is important.

Scheduling

In the authors' experience, the creation and maintenance of schedules is a complex entity in a resident practice. The term "scheduling" encompasses appointment capacity, maximizing continuity, maintaining physician productivity, and optimizing workflows. It is advisable to meet regularly with key stakeholders including clinic staff and clinic faculty to review the schedules. Regularly reviewing appointment data with the number of arrived patients, no show rates, and late visits at faculty meetings in a transparent way ensures that all the members of the clinic are engaged. A team-based approach with data-driven quality improvement should be used [13].

There should be an established policy for how to handle patients who arrive late or miss appointments that is transparent to the faculty preceptors, clinic staff, and residents. For example, at the University of Vermont Medical Center, if a patient is 20 min late, the faculty preceptor can decide if the patient should be seen or rescheduled. It is advisable to consider how far the patient has traveled and the reason for the visit and to evaluate the psychosocial factors which may impact the ability of the patient to arrive on time. Safety net clinics often have patients who run late due to transportation issues. The Institute of Healthcare Improvement guides on primary care or the Dartmouth Institute Microsystem Academy on the Clinical Microsystem (Improving Health Care by Improving Your Microsystem) provide a good framework for improvement [14–17].

Clinic and Call Coverage

Ambulatory clinics vary in the structure of their call coverage, while some may employ residents or other advanced practice providers such as nurse practitioners and others may not. In our experience, an established workflow for on-call documentation ensuring necessary post-call follow-up should be part of the clinic workflow. It can be helpful to have a telephone medicine curriculum so that residents and new faculty learn this important skill. To maintain high-value care, the clinic director plays an important role in managing utilization of services including emergency room visits and is expected to train faculty, residents, and staff in ensuring that appropriate care is given at the appropriate time [18].

Team Management

The ambulatory clinic is an important venue for residents to learn about team-based care. Many resident clinics operate within the structure of a patient-centered medical home (further discussed in chapter "Patient Centered Medical Home"). The high-performing team is now widely recognized as an essential part of the transformation to a more patient-centered, coordinated, and effective health care delivery system. While the medical director's role may be predominantly to manage the physicians, residents, and educational practice, the medical director plays an important role in managing the entire team, whether he/she is the sole leader or the dyad leader of the practice.

The Institute of Medicine white paper on team-based care lists the five personal values that characterize the most effective members of high-functioning teams in health care (excerpts below) [19]:

Honesty: Team members put a high value on effective communication within the team, including transparency about aims, decisions, uncertainty, and mistakes.

Discipline: Team members carry out their roles and responsibilities with discipline, even when it seems inconvenient. At the same time, team members are disciplined in seeking out and sharing new information to improve individual and team functioning, even when doing so may be uncomfortable.

Creativity: Team members are excited by the possibility of tackling new or emerging problems creatively.

Humility: Team members recognize differences in training but do not believe that one type of training or perspective is uniformly superior to the training of others. They also recognize that they are human and will make mistakes. Hence, a key value of working in a team is that fellow team members can rely on each other to help recognize and avert failures, regardless of where they are in the hierarchy.

Curiosity: Team members are dedicated to reflecting upon the lessons learned in the course of their daily activities and using those insights for *continuous improvement* of their own work and the functioning of the team.

In order to be successful, the team must have a shared vision and clearly articulated goals. There must be mutual trust, clear communication, and defined and measurable process and outcomes. Having strong institutional leadership that supports team-based care is an important organizational factor that impacts the success.

Advanced Practice Providers

Most health centers have seen an increase in advanced nurse practitioners and physician assistants. The role of the advanced practice providers (APPs) varies in scope and structure. In many clinics, they function as members of the care team providing urgent follow-up care, population health, well visits, and help in expanding access [20]. Many serve in the role of faculty and provide education. In our experience, having the APPs participate actively in the team, ensuring participation in academic activities such as journal clubs, and facilitating the ambulatory curriculum and in research projects will lead to active participation and career longevity. APPs cannot serve as preceptors in the resident clinic.

Supervision of Academic Work

Traditionally, academic faculty, particularly core faculty, have an expectation for scholarly work and research. Over the last few decades, there have been dramatic changes in health care funding and increasing pressure of clinical productivity. This has resulted in a diminishing relationship between tenure and guaranteed salary. As a result, there have been significant changes in the scholarly output of general internal medicine faculty.

All faculty need to make a contribution to the academic culture; defining tracks and identifying core faculty is the first step toward building and sustaining a culture of scholarship. Faculty who have an interest in academic work in the clinic setting usually belong to the clinician-educator or clinician-researcher tracks. The advent of big data and the need for quality improvement due to the shift toward population-based medicine provide a rich opportunity for academic clinicians to pursue academic work with relative ease and in line with the mission of most organizations [21, 22].

For clinician educators who develop curricula and provide a majority of the teaching for the residents and students, developing a rich faculty development program with instructions on how to evaluate curricula provides professional enrichment and continues to develop the culture of inquiry and scholarship.

While the role of the clinic director is primarily to ensure that the academic clinic runs smoothly, the very nature of the academic enterprise requires commitment to promote scholarship and research. The clinic director needs to work closely with the department chair or division chief to ensure growth of the clinical and research and scholarly activity, to define academic work distinct from clinical service, and to carve out time for faculty.

Management of Preceptor Faculty

As part of the responsibilities of an academic practice, clinic directors will also have supervision of faculty who precept medical residents in outpatient clinic. As such, it is useful to have a clear understanding of the resident continuity clinic preceptor role and its responsibilities.

Responsibilities

The responsibilities of the clinic preceptor can be summed up in the phrase "the primary supervisor for residents in their outpatient clinical practice." In most cases, preceptors serve as the "attending of record" for resident patients. Thus, the preceptor is also usually associated with the patients in the resident panel for insurance and medicolegal purposes. Another key responsibility is to serve as a role model in the field of primary care and general medicine. Role modeling is particularly relevant in imparting skills in competencies such as professionalism and communication [23]. Preceptors are also called on to provide mentorship, especially for residents considering general medicine careers. However, there are several concrete components, as discussed below.

Clinical Supervision

Clinical supervision can take various forms depending on the experience level of the resident and the teaching style of the preceptor. Unlike medical students, residents will obtain the history and physical exam independently. Following this, resident will usually present each patient to the outpatient preceptor. This may be done in a separate office or conference room, but in some cases, preceptors have found it effective to hear the presentation in the patient's room, allowing the patient to hear the presentation and also facilitating clarifying questions by the preceptor. After reviewing the details of the case together, the preceptor may use various teaching methods to impart teaching points relevant to the case, including the approach to the disease, management, and follow-up. Effective teaching requires the preceptor to have multiple content frameworks and teaching strategies. In addition, teaching points must be made in a time-sensitive manner allowing the resident to adhere to the patient schedule [24, 25]. The preceptor may then choose to ask the patient additional questions or examine the patient to clarify the resident's history and physical exam. The resident may then discuss the plan with the patient. At times, the resident may do this in the presence of the preceptor. After the visit has ended and the resident has completed the documentation, preceptors are required to review, addend, and cosign the documentation.

Often, questions arise outside a clinic session. The clinic preceptor must be available to assist residents outside of continuity clinic sessions with questions regarding patient panel management, patient laboratory testing follow-up, imaging studies, consults, paperwork, or other duties. This includes being available by email, phone or pager to respond to residents with urgent clinical questions. In most institutions, the preceptor is not the attending of record when a resident patient is admitted to the hospital. However, preceptors should encourage residents to perform continuity visits and communicate with the inpatient team. Equally important, residents should discuss any potential medical recommendations with the preceptor and inpatient attending of record for that admission.

There are relevant guidelines from the Accreditation Council for Graduate Medical Education (ACGME) regarding the preceptor-to-resident ratio in clinic which state that clinics "Must maintain a ratio of residents or other learners to faculty preceptor not to exceed 4:1." In addition, "Faculty must not have other patient care duties while supervising more than two residents or other learners. Other faculty responsibilities must not detract from the supervision and teaching of residents" [26]. This ratio is currently utilized as part of the CMS Primary Care Exception Rule which allows preceptors to bill and supervise the entire visit from outside the patient's room if the patient is covered by Medicare, the resident has more than 6 months of experience, the 4:1 ratio stated above is maintained, and the preceptor is easily available for any required supervision [27]. As a result, this teaching ratio has been utilized in many continuity clinics, even if the exception rule is not being utilized for billing. In clinics where the resident patients have a broader range of insurers, the exception rule can be difficult to implement since the preceptor's approach to each patient should theoretically be payer-blind. Commercial payers usually require that each patient be seen by an attending physician—a rule that can be challenging in clinics with fewer teaching faculty. In addition, the literature suggests that the six-month threshold is arbitrary and should be supplemented by an ACGME Milestones-based assessment of each individual resident's readiness to practice under indirect supervision [28, 29]. Thus, it should be possible to utilize the exception rule while balancing patient safety and resident autonomy.

Clinic Operations

Preceptors must assist and educate residents in effective clinical operations and also assist with patient triage. Preceptors have an important role in orienting residents to clinic structure and workflow, as well as use of the electronic care systems and billing. The ACGME mandates the presence of "Outpatient systems to prevent residents from performing routine clerical functions, such as scheduling tests and appointments, and retrieving records and letters" [26]. Preceptors are ideally placed to enforce this by serving as an outpatient ambassador, as well as by introducing and orienting residents to various clinic supports (i.e., nurse practitioners, nurses, medical assistants, administrative staff, nutritionist, case managers). When practice-level discussions occur regarding workflow and clinical support, preceptors can serve as a strong advocate for resident physicians to ensure there is equity in the support that is provided. Often, since residents are usually the most "part-time" providers, workflows need to be adapted to be effective for residents and their patients. Preceptors can provide input on this, and ideally residents in the clinic should also be asked for input.

Clinical Coverage

Preceptors are required to assist with resident clinical activities that require attending sign-off, e.g., controlled substance refills, anticoagulation oversight, forms related to outpatient services, and other forms. In some clinics, preceptors also provide coverage for assigned residents' patient panel when a resident is unavailable. In larger programs, this coverage can be offset by any available resident coverage system; however, preceptors should still remain available to provide clinical supervision as needed for the resident who is covering. The literature suggests that residents are less able to attend to "between visit" work during inpatient rotations rather than electives [30]. Episodic coverage for these "between visit" tasks is often provided by preceptors.

Qualifications and Skills Development

The ACGME states: "The physician faculty must have current certification in the specialty by the American Board of Internal Medicine, or possess gualifications judged acceptable to the Review Committee. At each participating site, there must be a sufficient number of Internal Medicine faculty with documented qualifications to instruct and supervise all residents at that location. Faculty must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities and to administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas" [26]. For internal medicine residency programs, outpatient clinic faculty are usually board-certified in internal medicine except in rare situations. Faculty should be primary care physicians in good standing at an approved primary care site affiliated with the residency program. Ideally, the primary care site will share the same electronic health record as the main residency site; however, this is not essential. Precepting faculty should have a deep interest in medical education and mentorship of residents. If the residency program or hospital division holds faculty development sessions, preceptors should be encouraged or expected to attend. Attendance to a reasonable number of faculty development events per year should be prioritized and facilitated by the clinic director.

Preceptors should have the opportunity to review their evaluations from residents and discuss their engagement in teaching with a residency program director or associate program director on an annual basis. Generally, a successful preceptor will have a demonstrated interest and experience in education, reflected in written evaluations by trainees.

Finally, it should be noted that a genuine alliance between precepting faculty and practice leadership promotes a stronger educational experience for learners. Gupta et al. discussed the concept of "Clinic First" and described six actions that can improve the educational experience of a resident continuity clinic. Four of the six actions—developing a small core of clinic faculty, creating operationally excellent clinics, building stable clinic teams, engaging residents in practice transformation—are in the bailiwick of the clinic medical director [31].

Compensation

Preceptor payment occurs via a number of different models across the country. Many programs compensate preceptors based on the revenue from resident clinic sessions they supervised. In other cases, revenue from resident clinic sessions is directed to the clinic site, and preceptors are paid a fixed stipend.