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## Chapter

# Starting New Accreditation Council for Graduate Medical Education (ACGME) Residency Programs in a Teaching Hospital

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## Abstract

Starting a new ACGME approved residency program can positively impact patient care, medical education, hospital operations, and the community as whole. This requires a significant amount of commitment, time, and preparation. The initial application and accreditation process should start early and requires a thorough understanding on the ACGME requirements. Building a new residency program involves collaboration among various stakeholders, starting with the teaching hospital, ACGME, and the Center of Medicare and Medicaid services (CMS). It is prudent to also consider the operational and logistical issues such as budget, faculty and administrative staff hire, faculty time for administrative duties, and educational space for faculty and residents. It is vital to recognize how the institution's strengths and weaknesses match up to these requirements. A robust educational and clinical curriculum in line with ACGME's core competencies and useful educational collaboration among various programs is critical for effective program. Recruiting and developing the appropriate faculty members is another important aspect for a successful program. The final challenge is recruiting residents that will fit well into the new residency program. Lastly, we discuss the challenges and tips to mitigate the risks of disappointment in the process of starting and creating a flagship residency program.

**Keywords:** new residency program, ACGME accreditation, site visit, faculty development, faculty collaboration, residency curriculum, time line, marketing, benefits, challenges, tips

## 1. Introduction

In a report released by the Association of American Medical Colleges in June of 2020, United States could see a projected shortage of between 54,100 and 139,000 physicians, including gaps in both primary and specialty care, by 2033 [1]. The report

also emphasizes the systematic differences in the annual use of health-care services by urban-rural location, insured-uninsured status, and race and ethnicity. US population is projected to grow by 10.4% from about 327 million to 361 million during the period of 2018–2033 [1]. The challenge of having sufficient doctors to serve our communities will get even worse as the nation's population continues to grow and age [2]. In addition, COVID-19 pandemic is likely to have short- and long-term consequences on the nation's physician workforce. The gap between the country's increasing health-care demands and the supply of physicians to effectively fill has become even more palpable during COVID-19 pandemic [1]. Thus, it is incumbent upon governments, academic institutions, hospital systems, and us as educators to work diligently toward addressing this problem. One such way is to increase the number of quality training opportunities for medical school graduates by initiating a residency and fellowship training program. Very little has been published on the steps and benefits of starting a new residency program accredited by ACGME. The ACGME is a private, 501(c)(3), and not-for-profit organization that sets standards for US graduate medical education (residency and fellowship) programs. [3] The ACGME renders accreditation decisions based on compliance with these requirements. The process is not without challenges, however, we have tried to create a guide built on personal experiences.

## **2. Benefits of starting a new residency**

The community benefits of residency programs spread far outside the teaching hospital boundaries and provide profits far beyond the standard annual hospital reports. Graduate medical education residency programs provide an overall positive impact at various levels right from residents and institutions to communities and the nation as whole.

GME programs deliver a disproportionate share of the care to historically underserved minorities and patients requiring transfer from other institutions for advanced care [4, 5]. More than 50% of the nation's health-care "safety net" is provided by the GME training programs in the university and community-based institutions which is an important justification of the "not-for-profit" status of these institutes [6]. The probability of a family physician settling in an underserved community increases by three to four times if they train in a community health centers affiliated with a teaching hospital-based program [7].

Besides imparting the medical knowledge to resident physicians, GME residency programs support the institution by continuing the medical education of the faculty, nursing staff, and other members of the health-care team, thus improving an overall quality of care in teaching hospitals [6, 8]. Major teaching hospitals were associated with lower 30-day mortality rates for common medical and surgical conditions ranging from pneumonia to hip replacement among hospitalizations for US Medicare beneficiaries [8]. The findings in another study suggest that mortality rates for even low-severity patients seem to be lower at teaching hospitals [9]. The attention to detail inherent in a teaching setting with a focus on innovation, frequent use of current medical literature to guide clinical decision-making, and more frequent and thorough case reviews may contribute to a lower incidence of adverse occurrences [2, 4].

Resident physicians not only provide around-the-clock coverage but also provide an economic advantage with lower Medicare spending at 30 days compared with Medicare patients at nonteaching hospitals [10]. Academic medical centers had slightly lower overall total costs compared with nonteaching centers mainly because of lower spending on post-acute care and readmissions. Better intensity of care

during the index hospitalization, more integrated post-acute care, and/or more robust care management services during the period immediately after discharge in teaching hospitals could be the reasons for these differences. [11].

The teaching clinics affiliated with the hospital can increase the referral, hospital-based outpatient services, hospital admissions, and eventually revenue of teaching hospitals. [6, 12, 13] It can also help retain and recruit physicians in the health systems, especially at places with physician shortage areas. By hiring their own residency program-trained physicians, the hospitals can not only save the recruitment costs but these new physicians can also hit the ground running, thus saving both time and money for the institutions.

Data from a recent American Hospital Association survey suggest that teaching hospitals tend to have superior adoption rates of telehealth. [14] Compared with nonteaching hospitals, teaching hospitals have better odds of offering telehealth visits, chronic care management remote patient monitoring, post-discharge remote patient monitoring, telepsychiatry, and tele stroke [15].

Teaching hospitals tend to attract and cultivate people who are at the top of their fields and deeply committed. Patient care, medical education, and research come together at teaching hospitals to generate an environment that not only innovates health care but also benefits individual patients.

Examining the benefits of GME programs to the institutions and communities that sponsor them can provide a fundamental approach for preparation, resource distribution, improvement, and quality impacts within those institutions [6].

### **3. Building the infrastructure**

#### **3.1 Institutional accreditation and sponsorship**

Per ACGME institutional requirements, “Residency and fellowship programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) must function under the ultimate authority and oversight of one Sponsoring Institution” [16]. The ACGME’s designated institutional official (DIO) will need to gain initial support from senior leadership and the board of trustees to embark on a new endeavor of starting a residency program at the institution. This support will be integral in successfully establishing the pillars that allow for a sustainable educational vision for the health network.

Hospitals or other health-care entities that seek to start new residencies/fellows have one of two options for sponsorship. Those options include partnering with an existing entity [hospital, medical school, federally qualified health center (FQHC), consortium, etc.] that sponsors ACGME accredited programs, or becoming its own sponsoring institution. There are pros and cons to each approach.

One advantage to partnering with an existing sponsoring institution (SI) is that the new teaching site could start a new residency application process without having to first obtain the ACGME institutional accreditation. Prior to applying for a new residency, the ACGME requires that there is a sponsoring institution to ensure the provision of resources and to foster a healthy learning environment. The mechanics to do this are straightforward; an existing sponsor’s program would identify the new teaching hospital as a “participating site.” The existing sponsor’s program initiates a program letter of agreement to govern the relationship between the two entities unless the new site is under the sponsor’s existing governance structure. Residents from the existing sponsor could start rotating at the new participating site, or the new participating site could apply for new residency programs.

This leads to the second advantage of partnering with an existing SI which is that resident rotations to a new participating site gives clinicians and administrators insight into what to expect when they decide to start their own residency programs. Many administrators like the idea of recruiting, training, and retaining their own workforce; however, few are aware of the cost/benefit analysis of such a venture. Thus, gaining experience in training residents without being fully committed is beneficial to all stakeholders.

A third advantage of partnering with an existing SI is that such an academic partnership could lead to a clinical affiliation, especially if the participating site has a strong and robust clinical scope within that given specialty (e.g., orthopedic hospital) and/or provides the sponsor with access to a new patient population (e.g., rural hospital or FQHC). In return, the new participating site receives the sponsorship needed to apply for new residency programs.

One downside of partnering with an existing sponsoring institution is that it can be confusing to the internal and external stakeholders as to who has the “ultimate authority” and “oversight” of the program. Governance structures are different from organization to organization and lines of accountability can be misplaced, misunderstood, or mislabeled. As a result, the question of “who has ultimate authority” can turn a once visionary proposition into a bureaucratic quagmire, especially when there are changes in leadership, organizational objectives, and internal politics. Ambiguity around “ultimate authority” and “oversight” dissipates if a site decides to sponsor its own residency programs and, as it turns out, is one of the advantages of becoming your own sponsoring institution of GME.

Sponsoring institutions are ultimately responsible for ensuring the provision of support systems, resources, and administrative structures and to foster the clinical learning and working environment. The SI’s execution of these responsibilities becomes essential when recruiting, training, and retaining the right residents for the community. The SI’s governing body has ultimate responsibility for GME activities and must weigh the rewards and risks of sponsoring GME programs. The risks being that the sponsor provides the necessary financial support for the administrative, educational, and clinical resources, including personnel. For example, each sponsoring institution of GME must identify a designated institutional official (DIO) and provide them with sufficient resources, time, salary, and professional development to effectively execute their duties [16]. A sponsoring institution must also ensure compliance with all ACGME institutional requirements while fostering a healthy learning environment, all of which can be additional costs as compared to partnering with the existing sponsor of GME.

Essentially, the decision of whether to partner with an existing sponsor or become one on your own comes down to three factors (the three Fs): faculty, finance, and facilities. Sponsors of GME are required to provide residents a broad, diverse, and in-depth training experience regardless if they own or partner with facilities that provide the clinic scope needed to comply with residency program requirements. The key is that the sponsor has “ultimate authority” and “oversight.” Although this can be obtained through affiliation agreements, it is challenging for a sponsor to enforce oversight when they lack control of the training sites. Sponsors of GME are also required to provide a sufficient number of faculties who are interested in, qualified to, and have the time for teaching and supervising residents. Lack of sufficient faculties can have serious consequences for a sponsor as demonstrated in the 2017 case when the emergency medicine residency at Summa Health lost their accreditation and the sponsor was placed on probation for not adequately negotiating for faculty coverage when replacing their ER contract with a new ER group [17]. Lastly, sponsors of GME need to ensure adequate financing of new programs either through grants, operations, or Medicare GME reimbursement, the latter having a unique set of challenges.

### **3.2 Budget and funding**

A key factor to the success in the budgeting process takes in all start-up costs and projected operating expenses of the new residency program. The bulk of these costs and expenses include resident salaries, faculty stipends for teaching, and administrative personnel, which creates an efficient system of management and program organization. The budgeting process includes accounting for costs such as protected time for program leadership [program director (PD) and associate program director], core faculty, along with faculty stipends that foster continuing education and research. Gathering data from other residency programs which are already in operation can be invaluable in terms of budgeting and forecasting costs for a new residency program start-up. It is pivotal that when starting the new program, the faculty costs are as accurate as possible. This can be achieved by using a fair market value (FMV) estimation when assessing the physician compensation.

The financing of GME programs mainly includes reimbursement from the federal government via Medicare that will, in turn, help sustain a residency program in the long term. For instance, the size of the federal investment in GME—estimated at \$16 billion in 2015 [18], helps to spur the growth of maintenance and conception of residency programs. The reimbursement offered through Medicare can help create profitability of a new residency program. A hospital is categorized into a certain reimbursement rate based on the guidelines set by the Centers for Medicare and Medicaid Services due to location and other factors. “In general, Medicare direct GME payments are calculated by multiplying the hospital’s updated Per Resident Amount (PRA) by the weighted number of Full-Time Equivalent (FTE) residents working in all areas of the hospital complex (and at non-provider sites, when applicable), and the hospital’s ratio of Medicare inpatient days to total inpatient days” [19]. It is important to consider that if a resident were to spend time in two different hospitals, then each hospital would count the proportion of the FTE time spent at its facility for reimbursement.

To properly plan for the space and facilities needed for a new residency program, it is important to understand the inpatient and outpatient accreditation and certifying board requirements for training. Even if most residents spend the majority of their training within an inpatient setting, it is pivotal that a resident also trains in an outpatient setting due to the high probability that they will practice in an ambulatory and community-based setting [20]. The primary training site will need adequate facilities, patient volume, and faculty for resident education. Evaluating inpatient volume data and the case mix of the hospital ensures a quality and diverse mix of patient cases for residents. Also, analyzing the capacity and forecasted volumes for outpatient sites is critical to ensure ACGME compliance and quality of resident education.

Recently, St. Luke’s Hospital - Anderson Campus in Bethlehem, Pennsylvania, built state-of-the-art facilities for new resident education. During this phase of starting up new residency programs, the GME senior leadership incorporated a full-staffed GME administrative office with on-site private program director and faculty offices, research support resources, residency program coordinators (PCs), and additional conference rooms dedicated to education. The goal of this unique GME space design was to encourage interdisciplinary collaboration between different residency programs to create a dynamic and high-quality educational experience for residents. At the St. Luke’s Anderson Campus, the collaborative model allows for more open-door discussions and sharing of ideas between program directors in specialties such as internal medicine, psychiatry, neurology, family medicine, dermatology, and emergency medicine. Additional education facilities include a full simulation center, skills lab, and standardized patient rooms for trainees to learn. Collaborative space design is also another way to model interprofessional collaboration behaviors for trainees.

### 3.3 About readiness assessments

The GME office, in collaboration with the network business planning, offered a “first-cut analysis” of the business and workforce feasible of starting new and right-sizing the existing programs in the network. Readiness assessments determined how “ready” a department was to start or right-size its program, identify gaps, refine relevant/expected projections, and develop action plans including time lines (**Table 1**). After finding the leads for various departments like Accreditation/Project Management Office (PMO), Community/FQHC, Research Reimbursement, Capital/Operational Expense, and Clinical, Physician Leads received accreditation standards and application, while GME office helped them draft a rotation schedule prior to planning meeting. The goal of the meeting was to score the department’s readiness. The readiness assessment helped to structure the way we launched the change and minimize the time and resources spent on implementing the changes. Pro-forma development and workforce forecasting were also instrumental in the assessment. With the assessment, we learnt: (1) current state of department compliance, capacity, personnel, and resource, (2) what the curriculum rotation schedule could look like, and (3) the department’s experience and belief in the value of the change.

<b>Stakeholders and recruitment</b>	<b>H-M-L</b>
What will be the impact of the program on St Luke’s?	
What will be the impact of the program on the community?	
What is the medical student market demand for this program?	
What is the quality of the department’s relationship with needed external partners?	
What is the department’s level of interest? Evidence of prior success? See the benefit?	
<i>Readiness score:</i>	
<b>Finance</b>	<b>H-M-L</b>
What is the program’s cost–benefit projection?	
What is the program’s cost–benefit revision (after a rotation schedule draft)?	
<i>Readiness score:</i>	
<b>Operations</b>	<b>H-M-L</b>
What is the capacity of the department to provide education?	
To what degree does the department meet faculty requirements?	
What is the department’s existing clinical capacity?	
What is the department’s projected clinical capacity in 5-7 years?	
What existing resources does St. Luke’s currently have to support this program?	
What are the legal implications of the program (lower is worse)?	
<i>Readiness score:</i>	
<b>Accreditation</b>	<b>H-M-L</b>
How many rotations will SLRA be able to host? (48 total months per resident)	
% Compliant with accreditation standards:	
What physical space does the department currently have to run the program?	

Accreditation	H-M-L
What is the department's expertise with this GME program?	
What is the department's experience in teaching residents?	
What is the department's performance in producing scholarly activity?	
Does department's attending meet current number of faculty needed?	
<i>Readiness score:</i>	
<i>Rating scale: H = fully ready (7-9 pts), M = partially ready (4-6 pts), and L = not ready (1-3 pts).</i>	

**Table 1.**  
 Readiness assessment.

## 4. Program accreditation

### 4.1 Complete the ACGME application

The initial accreditation process should be started early as the application process is the “final product” and many things need to be discussed, outlined, and developed before the application is submitted. The DIO must initiate the application process in ACGME’s Accreditation Data System (ADS). The DIO must name the program director at this time. The program director is responsible for completing the application and submitting it through Accreditation Data System (ADS) for the DIO to approve. The program director is ultimately responsible for the application submission, but the advice and expertise of key faculty, department chair, and/or recent graduates should be utilized. It is strongly advisable to become well acquainted with the ACGME requirements and have them at hand while completing the application [21]. ACGME does have a video on “Completing an Application for ACGME Accreditation” that is a great resource, providing specific details on sections of the application [22]. The ACGME has a specific section for program directors on accreditation, which should be reviewed prior to starting the application as it provides an overview of the accreditation process[23]. If a requirement is not clear, the ACGME publishes “FAQs” that may be of assistance. *This would also be a good time to meet with your designated institutional official (DIO) to discuss any other requirements that are unclear. It is also suggested that you review other documents in the Program Resources section, which could include case log requirements, definitions, etc.*

Each specialty has a specialty-specific application form. Read each question carefully and answer only that question in the space provided. Ensure the answer is complete, detailed, and if requested, provide specific examples on how something may be handled within the specific program. Many applications ask about hospital data and resources, including the number of beds, average daily census, faculty numbers, and patient care resources. Plan to include the expected schedule for the residents. *For most applications, you will need a current copy of all core faculty’s curriculum vitae (CVs) (with an updated list of scholarly activities), Board Certification status, and most recent date of ABMS Subspecialty certification.*

Many citations occur because the application is incomplete or inaccurate, required education experiences are not demonstrated in the schedule, scholarly activity requirements for the faculty have not been met, or the minimum number of core faculty is not identified. *It is imperative when addressing the questions in the program information form (PIF), you answer completely, concisely, and above all, with complete honesty. If your program has flaws or weaknesses, as do all programs, do not exaggerate or attempt to mislead, as this will undoubtedly be picked up during the site*



*visit leaving an irreconcilable black mark against your program.* If the program has weaknesses or flaws, it is best to concisely describe how they will be addressed and corrected with a time line. Once the application is completed, the program director submits the application to the DIO for final review and approval, after which the DIO submits to the applicable ACGME Review Committee. It is important to note that applications can only be submitted once and cannot be revised after submission. Although it seems obvious, one might be surprised by the number of applications that are submitted where directions were not followed, or the application lacked proper grammar: neatness and grammar do count. A poorly prepared application sets the stage for what could be a difficult process, as noted by John Gienapp, M.D., former executive director of the ACGME, “when a site visitor reads a poorly prepared PIF he/she comes prepared for the worst.”

Once the application is completed, fellow members like faculty, residents, educators, and/or DIO should read the application and propose their suggestions and offer amendments. This is helpful to ensure that all aspects of the residency/fellowship program have been correctly presented and the document is internally consistent. It is not uncommon to have slips and/or inconsistencies in a document that has been worked on for many months. Review should include an examination of all sections of the application for accuracy, including the faculty rosters and curriculum vitae (CVs). [24] Before submission, the program should find someone not familiar with the program but familiar with the ACGME policies and procedures to review the requirements and applications. This person should read both documents fully and identify areas that may need more details or that do not make sense.

After the application is submitted, program staff should interact with RC team to confirm that the application has been received. The RC team can also help with information about deadlines for forthcoming meetings. These meeting dates are posted on the ACGME website and are typically 8–10 weeks in advance of the meeting date. The goal for submission is several months prior to the site visit [24].

## 4.2 Preparation of site visit

This will take a year or more from finding a sponsoring institution to matching the first class of residents. In between those two bookends is the site visit from the ACGME. From our experience as newly accredited residency programs, there are pieces of the process, that on reflection, were key to our success.

Before thinking of the site visit, becoming familiar with the ACGME common program and program-specific requirements is essential. Having established, veteran program directors review the application in advance can give you the benefit of feedback and ability to troubleshoot. *Preferably, use one from your specialty to review the PIF and then one from outside the specialty for the site visit, who can challenge you on parts of the application unfamiliar to them and make you explain your rationale.* The most helpful part for our programs was the mock site-visit with other program faculty and having all parts of the application in folders with easily identified tabs so that all questions could be addressed quickly during the actual visit [21]. This gave us confidence and it showed the site visitor how much time, attention to detail, and effort went into application. Preparation began while creating all the applications and PIF and knowing the “purpose” of every rotation, every needed document [25]. *Understanding all the ACGME requirements and how your program will address them in the future is key during the site visit and having thought of contingency plans will impress the review committee with the level of preparation and thoroughness.*

*While the ACGME assigns the site visitor and outlines the agenda for the day, it is paramount to know your program inside and out, especially if those at the site visit*

One year out	Review program and institutional requirements, preview the PIF, document education meeting attended by involved and faculty, revise goals and objectives as needed, and update and organize all program letter of agreements (PLAs)
Six months	Reread the requirements and write the PIF. <i>Remember your site visitor and your RRC do not know you or your program, be clear and concise. Your site visitor and the Residency Review Committee (RRC) review multiple programs PIFs—make a good first impression</i>
3 months	Once notified, reread requirements, complete PIF, schedule a meeting with institutional officials and key faculty, schedule appropriate room for meetings, schedule transport, lodging and meals, and select residents for meeting
One month	Prepare residents and faculty, impress the importance of the meetings, share the PIF, and ask to read and ask any questions. Remind to answer questions from the site visitor clearly and accurately. If they do not know the answer, they should say so and ensure the site visitor that they will find the answer and get back to them before the end of the site visit. The program director should be notified so he/she can discuss further with the site visitor if necessary. Stress the importance of having a positive and productive attitude toward the establishment of the program. Reread requirements
One week	Meet with faculty after they have reread the PIF and clarify any questions or concerns, reconfirm all dates, times lodging, and transportation logistics. A mock interview with faculty and the PD, with the DIO acting as the site visitor can be very helpful to ensure all questions have been well thought out and all documentations are well organized and readily available. PD should have a binder with the completed application with tabs to easily and quickly find information the site visitor may inquire about. The binder should include a copy of the PIF, educational goals and objectives, written supervisory lines of responsibility, acceptance/promotion/dismissal policies, planned conference schedules, template of resident/faculty /program evaluations and plan for filing this data, copy of internal review, resident contract and manual, copies of affiliation agreements, institutional letters of agreement, and PLAs. Additionally, one should have available a copy of the program and institutional requirements as well as a block schedule of resident rotations
One day	REREAD REQUIREMENTS AND PIF, check all documentation twice, GET A GOOD NIGHT SLEEP!
Day of visit	<i>Approach with confidence, knowing you are well prepared and have an exceptional program to show off</i> Day of the visit is typically 4-5 h. The site visitor usually meets with the program director and program coordinator first, then department chair, followed by the DIO, core faculty, possibly a tour of the hospital, and then meet with residents, sometimes over a lunch. At day's end, the site visitor will have a final meeting with the program director. The site visitor typically reports a review of the program's history review of institutional issues or citations. They may ask for clarification of the PIF or questions raised during faculty or resident interviews and anything else that is needed. They typically provide their perceived strengths and weaknesses of the program and answer any questions.
<i>Start early on accumulating and updating faculty CVs. You can use a well-written PIF as a model template, which paints the program in clear and concise manner and have another experienced PD's critique it along with other faculty.</i>	

**Table 2.**  
 Preparation of site visit timeline.

were not involved in PIF preparation. This starts with the being confident in the details (from the time of the visit and the locations to the program specific requirements) will ensure a less stressful environment for you and the site visitor. This includes blocking vacation time for all key personnel until the site visit is complete. Likely, your visitor will not be from your specialty and you cannot assume they are familiar with all the program specific nuances, so you need to. Also, the core faculty being interviewed should be familiar with the PIF and the mission statement of the new program. If not then, at the minimum, they should know their expectations (core faculty, Core Competency Committee (CCC) or Program Evaluation Committee (PEC) members, and the rotation schedules).

### **4.3 Time line**

One should think of the site visit as an open book test—good preparation should yield no surprises. Dr. Ingrid Philbert, Ph.D., MBA, Senior Vice President, Director, Field Activities for the ACGME, borrowed this analysis from the five stages of grief by Elizabeth Kubler Ross. Denial: “They not coming again, already”; Bargaining: “We can get a postponement”; Anger: “She says, we cannot get a postponement”; Depression: I will never be ready”; Acceptance: “We will be ready!”

In general, information gathering for the PIF should begin approximately 1 year before the application due date. Begin focused writing 6 months before the due date and finish the first draft 3 months prior to the due date (**Table 2**).

After the respective resident review committee (RRC) has reviewed the program, an e-mail notification of the accreditation status will be sent within 5 days. This e-mail note will not provide any details about the findings from the review, only the status. The letter of notification is sent approximately 60 days after that. This letter outlines areas not deemed to be substantially compliant by the RRC (citations), other areas in need of improvement, and actions the program is asked to take. This letter should be read carefully and discussed with faculty, residents, and department as well as institutional leadership.

## **5. Educational development**

### **5.1 ACGME requirements**

As the new program application to the ACGME begins with the designated institutional official (DIO) by submitting a program application to the ACGME's Accreditation Data System (ADS),<sup>[24]</sup> the DIO also must select a program director (PD). PD is not only responsible for completing and verifying the accuracy of application information but also responsible for running the program successfully. The program director must be approved by the sponsoring institutions' Graduate Medical Education Committee (GMEC) as well as the RRC. The program director must be appointed for the length of the program plus 1 year. The PD must have educational and administrative expertise as well as certification in their respective specialty by the American Board of Medical Specialties. The PD must also be currently licensed and have a medical staff appointment at the sponsoring institution. Additionally, the PD must demonstrate adequate scholarly activity and be 5 years removed from residency/fellowship training or have worked as an associate program director for 3 or more years. To successfully oversee a program, the ACGME recommends at least 20% protected time for the PD. To assist the PD in running the program, each program is required to have a designated program coordinator (PC). The PC is responsible for assisting the PD in the day-to-day administration of the training program. The ACGME website precisely dictates the academic requirements while also mandating that the PD “embody personal qualities of integrity, confidence, and model outstanding professionalism, high-quality patient care, educational excellence and promote an environment where respectful discussion is welcome, with the goal of continued improvement of the educational experience.” The above should be viewed as absolute requirements for a program director; however, for a PD to maximize the potential of those individuals under his or her charge, the PD must act as a disciplinarian while maintaining the confidence and respect of the trainees. To maximize trainee morale and a conducive educational environment, the PD may act as a confidant, counselor, and at times, therapist.

Furthermore, it is imperative for the PD to establish good working relationships with the other program directors. Aside from providing support and advice, PDs must often work together. Because the ACGME does not permit integration with another sponsoring institution with the same specialty, programs are often required to work together to meet requirements. For instance, medical residents are required to rotate through cardiology; if a poor relationship exists between the two program directors, there is no option for the medical residents to rotate through another institution's cardiology training program.

ACGME sets standards for residency and fellowship programs that are comprised of common program requirements (CPR) that all programs regardless of specialty must meet and specialty-specific program requirements. Each program must provide program-specific details in the form of the program information form (PIF), which should be provided by the program director (PD) as they will know the program best and no one has a more significant stake in the program outcome. The PIF contains questions related to the CPR and the specialty-specific requirements and provides a clear understanding of why your program's mission and vision should exist and how it will serve the residents/fellows, hospital, and community at large.

Each program must have an accredited institution as its sponsor and designated primary training site(s). The ACGME requires accredited residency/fellowship programs to operate under the authority and control of one sponsoring institution. The sponsoring institution must comply with the ACGME institutional requirements and must ensure that all accredited programs remain in compliance with institutional-, common-, and specialty-specific program requirements as well as ACGME policies and procedures. Additionally, the sponsoring institution retains responsibility for the quality of GME, including when resident/fellow education occurs at other sites. The sponsoring institution defines and regulates compliance through affiliation agreements. Master affiliation agreements (MAAs) are the overriding agreements between the sponsoring institution and all its major participating graduate medical education sites involved in residency/fellowship education. If training was to occur at sites not governed by the sponsoring institution's primary training site's Board of Directors, a program letter of agreement (PLA) is required. In contrast to MAAs, PLAs are program-specific, originating at the program level, and offer details on faculty, supervision, assessment, educational content, size of the assignment, and policy and procedures for each essential assignment that occurs outside of an accredited program's sponsoring institution. These documents are designed to protect the program's residents/fellows by confirming a proper educational experience under sufficient supervision and must be renewed every 5 years [26].

Following initial program accreditation by the ACGME, the Residency Review Committee in your given specialty will, in subsequent years, monitor key performance measures to determine programmatic effectiveness and value. Data points are derived from the resident and faculty surveys, and board certification pass rates and performance by program graduates will determine the program accreditation status. The program must also submit every year to the ACGME program information via the Accreditation Data System (ADS). This includes reports of trainee development as measured using the specialty-specific milestones. Site review intervals will extend to 10 years if the program continues to meet performance goals. Prior to the once-a-decade site visit, it is expected that the programs will conduct, at least yearly, self-studies to consider accomplishments and opportunities for improvement [27].

The ACGME and other medical societies, especially the Association of Program Directors for the specialty, have a robust collection of resources to assist program development for everything from preparation for an ACGME initial application to

the 10-year accreditation site visit and everything in between. *One should consider attending the association of program directors meeting in your given specialty and the annual national ACGME Education Conference, usually held in the spring, join the GME committee at your institution, and call on other PDs at your institution and others in your specialty for advice* [24].

## 5.2 Creating a “successful” residency curriculum in graduate medical education

Developing a “successful” curriculum means designing and implementing an effective program of study and discovery in a focus area. In graduate medical education, this “focus area” may represent a rotation, that is, cardiology, ambulatory rotation, critical care, etc. It may also represent an educational activity (i.e., grand rounds presentation) or research and scholarly activity (i.e., quality improvement project). A resident’s skill level within this area is then evaluated within the “lens” of the core competencies as established by the ACGME. This “lens” includes the ACGME core competencies and their associated milestones [28]. The six core competencies include patient care, medical knowledge, systems-based practice, professionalism, practice-based learning and improvement, and professionalism [29].

The curriculum that you design for each of your focus areas should include the skill set needed within the “lens” of the competencies and milestones. Your “curriculum format” should include the following key areas:

- Overview
- Goals and objectives
- Methods of teaching/instruction
- The educational content
- Evaluation and feedback

For the purposes of providing a more concrete example, consider what a curriculum for a first-year internal medicine resident [30] who is about to begin a cardiology rotation would look like using this format.

### 5.2.1 Overview

This describes and sets the tone for your “focus area.” It would provide a little background about the focus area (in this example, cardiology) and may briefly describe aspects including the subject matter and clinical interactions. It may also briefly touch on other areas including educational content and methods of teaching that you will describe more in depth later in the curriculum [29].

### 5.2.2 Goals and objectives

The goals and objectives of a rotation or activity need to be clearly defined within the framework of the ACGME core competencies. For example, the goals and objectives of an internal medicine resident on the cardiology rotation would be defined within the framework of the six core competencies. Each of the core competencies should be listed in the goals and objectives section and the milestones

can be further defined considering the respective competency discussed. Each core competency should be listed as a separate heading under your Goals and Objectives section. Two examples of a cardiology-focused goals and objectives under **patient care** could be:

- Demonstrate updated knowledge of assigned patients on rounds.
- Demonstrate an improvement in development of a treatment plan under the cardiologist's supervision.

The wording of the goals and objectives should be in the active voice. The first word of each objective should be a behavioral verb like: define, develop, review, identify, obtain, demonstrate, correlate, present, use/utilize, and/or communicate. They are dynamic words that are important when trying to convey each of your individual goals and objectives. Communicate, for example, may be the initial “buzzword” under specific goals and objectives under the section on **interpersonal and communication skills**. Look at the following examples:

- Communicate effectively with patients and families.
- Use effective listening, nonverbal, questioning, and narrative skills to communicate with patients and families.

*You will find as you are developing your curriculum for different focus areas that the patient care and medical knowledge competencies will vary greatly depending on your focus area. Pulmonary and nephrology, for example, are likely to have very different goals and objective in these areas. As you continue to develop and design curricula, you will also find that there is significant overlap in the content of the other core competencies (especially professionalism, systems-based practice and practice-based learning and improvement) and their associated milestones.*

Note that the resident must have access to the curriculum, especially the goals and objectives. Many residency programs maintain these on the residency management system, whether it is New Innovations or MedHub. Another option is to save them on a shared drive on the computer which is readily accessible. The resident should review the goals and objectives portion prior to the beginning of each rotation.

### 5.2.3 Teaching methods

This section defines the methods by which the residents learn the different topic areas. Common examples of teaching methods germane to most resident rotations include:

- Direct patient care.
- Didactic conferences.
- Daily teaching and management rounds with team and attending physician.
- Assigned reading topics depending on the focus area.
- Other topic areas depending on the specialty; for example, the resident in cardiology may have dedicated sessions regarding ECG interpretation and review.

#### 5.2.4 Educational content/venue

This can be considered a separate area or be included in the above Teaching Methods section. Basically, what is the nature of the clinical exposure on the rotation? Is it an inpatient or outpatient rotation or a mix of both? If it is an inpatient rotation, would patients be seen by the resident on the general medical floor or also in the ICU/CCU? Is it a general cardiology rotation or are there specific patient populations the resident would encounter on this rotation, that is, patients with congenital heart disease?

#### 5.2.5 Evaluation and feedback

After the Goals and Objectives section, this is probably the most important section. Two of the most common questions residents ask at the beginning of any rotation are: “How am I being evaluated?” and “Is feedback provided during the rotation? These are important questions to address in this section of the curriculum so that the resident has a clear understanding how s/he will be evaluated [31]. Important aspects to consider including this section:

- *The specific evaluation system that your residency program utilizes.* Two of the most common are MedHub and New Innovations.
- *That you provide both written and verbal feedback. Ideally, verbal feedback one-to-one should be provided at the midpoint of the rotation depending on how the rotation is run at the hospital.* If the attending of record changes on a weekly basis (which may occur on hospitalist or some subspecialty rotations), then weekly evaluations would need to be performed.
- *Your resident should review the goals and objectives of the rotation at the beginning of the rotation and your resident has easy access to these goals and objectives.*

Note that the rotation evaluations for the rotation should be directly related to the goals and objectives that you define in your curriculum initially.

### 5.3 Faculty development

The foundation for starting a residency program lies in the layering of the right faculty framework. Faculty remains one of the biggest assets for any training program. Dedication to teaching, commitment to education, and passion to share the love of learning are all aspects of academic medicine that propagate scholarly activity. Historically, there are many challenges to faculty development in any department, but most especially in new program development, in an academic setting. This issue was specifically addressed at the World Conference on Medical Education in 1988. It was intended to improve medical education worldwide. The Edinburgh Declaration made 12 recommendations, the fifth recommendation was to train forerunners as educators, not just content experts, and reward distinction in this arena as in biomedical research or clinical practice [32, 33]. This was also addressed as part of the ACGME Outcome Project initiative that faculty must be qualified to provide and evaluate education that is level-specific, competency-based, standardized, integrated, and accessible [34, 35]. The evolution of a physician into an educator does not happen overnight. The acknowledgement of the importance of faculty development cannot be overemphasized, especially in training of future physicians.

There are many challenges to a sustainable faculty development curriculum. The requirement for faculty development has increased as a result of growing demands by the regulatory agencies [36–38]. American Association of Directors and Psychiatry Residency Training membership reported lack of funding and lack of time as well as excessive clinical demands as the main barriers to seeking career in graduate medical education [36]. Clinically, the concerns for excellent patient care while teaching residents or students, with the demands of RVU production can be daunting. Other barriers noted in this survey included “faculty attrition, faculty burnout, lack of recognition, and paucity of GME positions within institutions” [36].

Traditional faculty development consists of faculty development workshops, grand rounds, leadership conferences, and faculty retreats. These sessions typically require faculty to block clinical hours to be present face-to-face in one designated location. These usually occur in larger group settings due to the cohort nature of the exercises. These sessions usually address faculty development competencies including education theory. Topics can include curriculum development, competencies, milestones, and EPAs. Other helpful topics to assess teacher effectiveness would include preparation and delivery of didactic teaching skills, clinical teaching skills, specific audience targeting, and incorporation of technology into teaching sessions. Topics specific to the resident evaluation would include assessment and evaluation, giving feedback, the 1-min preceptor, small group teaching, learner styles, and flipped classroom sessions. Other models include teaching and mentoring skills. Topics to be considered under this umbrella would include advising/mentoring techniques and evaluation of any resident expressing difficulty with academic or behavioral issues. Due to new curriculum and new roles for faculty as educators, management and leadership training should also be at the foreground of new faculty training in new programs. Management and leadership styles vary greatly depending upon the physician’s prior experiences, their own role models, and their own prior mentors. Useful topics under leadership areas include time management, work hours, delegation, emotional intelligence, networking, team building theory, work/life integration, communication skills, conflict management, strategic planning, and career development of an educator’s portfolio.

Another important component in faculty development includes the incorporation of research, especially early in residency design. The expectation of quality and process improvement (QI/PI) projects for both residents and faculty fosters a foundation of evidence-based medicine and quality standard measures for patient safety. Faculty education on research study design, statistical methodology, utilizing the Plan-Do-Check-Act (PDCA) cycle for project implementation, presenting and writing study results, project feasibility, IRB submission, poster presentations, grants submissions, literature searches, publications, evidence-based medicine (EBM), and quality improvement are essential for propagation of scholarly environment. These faculty development workshops are all valuable resources for faculty to stimulate personal research opportunities but also ignite resident intellectual curiosity. New programs that initiate faculty development in all these areas show a commitment to education to the residents. Faculties are expected to have core knowledge in their specialties. This is maintained by board certifications, recertifications, Continue Medical Education (CME), faculty appointments, and recognition within the field of interest. However, a dedicated commitment by the residency programs to structured faculty education is essential to the success of the residency itself. Capturing all areas of research, leadership, education theory, and teaching skills will undoubtedly advance the program and the residents within it.

Innovative methods to faculty development can also be explored through other social platforms. Due to the explosive nature of technology in academic medicine, exercises in flipped classroom settings, online prep courses, Skype presentations,



and lectures further help to spread the availability of resources outside the typical face-to-face lecture/conference settings. It is essential in the busy clinical setting to have flexibility in the location and timing of training activities. 2010 I-PASS study among 11 academic institutions was launched to determine the effectiveness of patient handoffs and patient safety [39]. It required faculty at multiple institutions to first be trained on best practices on patient handoffs, which then in turn would be taught to the residents. This study prompted the development of new faculty curriculum across multiple sites and the need for standardized training. Faculty development was in the lead to advance patient safety among various institutions through innovative modules, online conferencing, combined with live training workshops [39]. Another example is video observation with guided reflection using peer review of videotaped teaching encounters [40]. Another article from Klein and associates reviewed the use of social media with excellent participation, that is, Facebook in providing online faculty development for a larger venue. Participants were involved in knowledge exchange (discussing, questioning/answering, and learning new tools and opportunities) and social capital (networking, sharing ideas, and peer learning). Outcomes showed overall positive impressions with ease of use, rapport, and community building. The biggest challenges were the asynchronous nature of participation and concerns for privacy and professionalism using social media [41]. “Online learning in general is neither superior to nor inferior to other approaches, but simply a method that overcomes some challenges while creating others.” Educators should innovatively balance face-to-face and online approaches in teaching [42]. This mix of approaches offers the best combination for faculty adherence and feasibility.

Finally, the future recruitment of excellent faculty educators also lies in praising and rewarding those educators who are the role models for our new residents. These faculty members need to be recognized for the role they fulfill every day in teaching our future physicians and scholars. It will require making changes in academic policies and performance expectations, offering a well-defined career path and identity for educators, increasing faculty development programs, supporting health professions education scholarship units and academies of medical educators, and generating means to ensure high standards for all educators [32]. These resources need to be standardized and shared within the academic learning communities both in undergraduate and graduate forums. Many roles have shared responsibilities within the academic world. Professional development occurs at all levels in academic medicine with the same ultimate goals. “Ensuring that all educators receive the essential knowledge and skills for teaching should be a policy priority” [32]. Joining forces with other established programs can greatly help new program faculty development. This is evidenced in national meetings of educators who welcome shared input to advance both established and new programs for the ultimate advancement of excellent programs. The rewards of graduating a residency class with knowledgeable, compassionate, and competent future physicians remain the ultimate draw into a career of academic medicine.

#### **5.4 Collaboration between residency programs**

The benefits of collaboration in industries from information technology to professional sports have been clearly demonstrated. “We are often better served by connecting ideas than protecting them” [43, 44]. Within medical education, residency collaboration has borne fruit in several fields [45–47]. A noteworthy example is the Preparing the Personal Physician for Practice (P4) project, an initiative undertaken by 14 family medicine residency programs tasked with seeking innovation in residency education [45]. The collaboration between these programs allowed

for the sharing of “best practices,” while also granting participating programs latitude for experimentation that has led to significant advances in the education of residents [47, 48]. Similarly, a collaborative health advocacy training program developed by California’s pediatric residency programs allowed each of the constituent residencies to demonstrate clear adherence to the ACGME’s requirement on the subject [46]. In a publication that described this joint venture, the authors explain that the effectiveness of the project in accomplishing its goal has led the group to expand the scope of their collaboration [46].

New residency programs offer fertile ground for collaboration in several dimensions. First, the new residency may look at the other programs available for collaboration. Are there existing residencies of the same specialty in the health network or fellowships with ties to the new program’s field? What other new residency programs are starting in the network at the same time, or within several years, of the new program? Second, a new residency program should consider what domains are best suited for collaboration with other programs. Is it feasible and mutually beneficial to create collaborative educational content in the form of didactics and workshops? Would shared clinical experiences offer growth opportunities that are missing in single-specialty or single-program scenarios? What research and scholarly activity might grow from inter-program collaboration? Exploring these questions and their answers allows the new residency program to capitalize on opportunities to collaborate and enhance training for all of the residents involved.

At St. Luke’s Hospital - Anderson Campus, several avenues of collaboration have been established. During the planning phase for the new family medicine and internal medicine residency programs at the Anderson Campus, the decision was made to collaborate in the implementation of a curriculum in lifestyle medicine. This approach to clinical medicine, with a focus on the modification of lifestyle as a first line for disease prevention and management, is attractive to both patients and prospective residents. Working together, with the help of lifestyle medicine-trained adjunct faculty, the family and internal medicine residencies were accepted as a pilot site for the American College of Lifestyle Medicine’s “Lifestyle Medicine Residency Curriculum,” (LMRC) which prepares residents for dual board eligibility in their core specialty as well as lifestyle medicine at the end of their training. Residents participate in shared lifestyle medicine didactics and will rotate together through a lifestyle medicine specialty clinic. It was the inter-specialty nature of this collaboration that distinguished St. Luke’s from other programs vying for acceptance as LMRC sites.

Residents in the new residency programs at St. Luke’s Hospital - Anderson Campus also participate in a scholarly activity collaborative; trainees enjoy joint sessions on foundational concepts in research and work together to develop quality improvement projects spanning inpatient and outpatient settings. In addition to the clear patient care benefits of this program, residents can enhance their skills in communicating with other health-care professionals and in considering the impact of a quality improvement initiative outside of their clinical domain.

## **6. Marketing and recruitment**

Recruiting residents for a new program must be done in a strategic manner to allow for the best outcome for the trainees and the training institution. The first three classes of a residency program can help shape the program and the community it serves. It is important to bring in residents who will contribute to the program development and are flexible in working through the challenges a new program has to offer. Over the past decade, there have been multiple studies regarding resident selection that have seen an increasing trend that USMLE score do not correlate with

performance during residency [49–51]. Many surgical and emergency medicine programs have started to look at “GRIT” as an important aspect of being successful in residency. GRIT is defined as growth, resilience, intensity, and tenacity. Identifying residents who are passionate about medicine and are willing to go beyond the job description, thus ensuring the highest patient care [52–55]. This concept has been in existence since the conception of residency by William Halsted but has been forgotten as the field of medicine has become overburdened with an increasing number of applicants and more regulations in Graduate Medical Education (GME) [50, 55].

When recruiting future residents to a new residency program, it is vital to select candidates based on the following qualities: leadership ability, strong sense of comradery, willingness to adapt and learn, GRIT (resilience), and emotional intelligence.

Academic rigor and test scores will be a part of GRIT [55]. When evaluating candidates for a residency position, it is important to create a standardized procedure to prevent biases. In terms of resident leadership, we can use Kouzes and Posner’s approach to identify those who inspire a shared vision, enable others to act, and encourage contributions and positive outcomes [56, 57]. It is also important to select individuals that work well in team; candidates that have experiences of working in a team outside of medicine should be considered an important quality. High-quality teamwork will have resulted in a candidate who has effective communication skills and demonstrates a high degree of professionalism. Willingness to adapt and learn is an important quality for candidates in a new program as it requires a great degree of flexibility and the ability to learn from challenges that will be faced as a team. A well-respected psychologist who focuses on high-functioning teams, Mihaly Csikszentmihalyi, states: “Of all the virtues we can learn, no trait is more useful, more essential for survival, and more likely to improve the quality of life than the ability to transform adversity into an enjoyable challenge.”

GRIT, as previously mentioned, is defined as growth, resilience, intensity, and tenacity. This is a vital component of resident selection. It should include the resident’s previous academic abilities. A form of this characteristic was used as a part of the criteria of the original Halstead resident for training academic surgeons at Johns Hopkins. Selecting the right set of candidates will create a unique sense of community. It is also important to select candidates with a high level of emotional intelligence in a new program. Residents will be put in environments with staff who are not familiar with having physician trainees and will require residents to handle those situations with poise and humility.

A final important consideration when recruiting residents is promoting diversity. This can be done by selecting an interview panel that encompasses staff from different areas of health care with whom the residents will be required to interact. This inclusive interview team will also be responsible with creating a standardized and structured interview process. Faculty should also be trained to avoid anchoring bias based on the application or resume alone prior to interview [51].

## **7. Challenges and tips**

Aside from the “3Fs” model (faculty, finance, and facilities), starting a new teaching hospital poses challenges around reimbursement and accreditation. Once sponsorship and training sites have been identified, the new teaching program must determine if it has the regulatory right to start and develop a GME resident FTE cap and to be reimbursed for the residency training through CMS. Building a resident FTE cap large enough to support the hospital and the health network’s needs, not only operationally and financially, but strategically, to

provide workforce solutions in response to community health needs assessments. The Congressional Research Service (CRS) recently published an overview of how Medicare Graduate Medical Education Payments work [58]. CRS identified selected GME funding issues for the Congress to address including that Medicare GME payments do not reimburse hospitals for their up-front investment to begin new residency programs. Lack of up-front or even retro funding is a significant challenge to hospitals starting new residency programs as well as the increase in medical school enrollments and projected physician workforce shortages. As a result of absence of up-front funding, hospitals need to intertwine physician workforce initiatives into their strategic plans and business objectives rather than seeing residency training as separate from the strategy vision. By doing so, hospital executives incorporate residency training costs into their growth proformas and establish community-based recruitment, training, and retention goals as part of their growth outcomes. Hospital executives see the value of residency programs when viewing them as a workforce development initiative rather than solely an educational program that is part of a community mission.

There are many factors that determine if a hospital is eligible for Medicare GME reimbursement, which can be found at [cms.gov](http://cms.gov). CMS regulations define a “new medical residency training program” simply as “a medical residency that receives initial accreditation by the appropriate accrediting body.” CMS will reimburse eligible hospitals for starting new residencies albeit under challenging and sometimes ambiguous guidelines. For example, as the end of a 5-year cap building period, CMS completes a balancing test to determine if a program is new for Medicare GME reimbursement purposes during a new teaching hospital’s 5-year cap-building window. In addition to obtaining ACGME initial accreditation status, CMS considers the following factors: (a) whether the program director is new, (b) whether the teaching staff is new, (c) whether residents came from an existing program, (d) relationship between hospitals, (e) degree to which hospital with an original program continues to operate its own program in the same specialty, (f) whether a program was relocated from a closed hospital and if so, whether it was part of that hospital’s caps, and (g) whether a program is part of any existing hospital’s caps [59]. While the balance test of “newness” might appear to be straightforward, every health-care system or entity struggles with some elements depending on their situation. There are numerous factors that could affect “newness” of a program, such as meaning all curriculum requirements, having sufficient number of qualified faculty, recruiting high quality candidates, etc. One area that programs can find challenging is recruiting residents with prior training. For a new program, this can put a damper on the depth of a recruitment pool. CMS’s guidance on the “new resident” has been that in order to maintain newness, most of the residents in the program must be residents who are also new, again, with no prior training, or the resident’s initial residency period (or IRP) not triggered.

Another CMS newness challenge faced by new programs is the comingling issues. As a new program, residents cannot participate in side-by-side training with other residents of the same specialty, as that is not deemed as “new.” Yet another area that programs can find challenging in passing the “newness” test is using new people, resources, and sites and not from existing programs. This poses a particularly significant hurdle when an organization likes to internally promote. If a health system has one family medicine program and wants to start a new family medicine program at another campus, promoting the associate program director from the existing residency to program director of the new residency can pose a problem. The keyword in this last paragraph is “can.” The CMS balance does allow for some wiggle room and, overall, much of a program should pass all elements of

the balance test, hence the name “balance” in order to qualify to receive Medicare GME reimbursement.

A few tips for mitigating the risk of losing up-front investment to failure to pass the newness assessment include but are not limited to: (1) getting a Medicare GME reimbursement consultant to conduct a “newness” assessment of your new residency programs. This should be conducted at the beginning and all throughout the 5-year cap building process. (2) Hiring a project manager to help keep new program builds in sync with the larger objective which is ensure the provision of necessary financial support for administrative, educational, and clinical resources, including personnel. A project manager will also help programs remedy obstacles to pass the balance test of newness, which inevitably require logistical support. (3) Organizing the project in terms of faculty, facility, and finance tasks and activities. Accreditation work is assumed and a significant piece of the up-front feasibility study, for example, who would be interested? What rotations would we be able to keep in-house versus out-of-house? How much will things cost? etc. Physician Leads receive accreditation standards and application and work to draft a rotation schedule prior to a planning meeting. The goal of the planning meeting is to score the department’s readiness (**Table 1**). The readiness assessment will help to structure the way we launch the change and minimize the time and resources spent on implementing the changes. With the assessment, we can learn: (1) current state of department’s compliance, capacity, personnel, and resource; (2) what the curriculum rotation schedule could look like; and (3) the department’s experience and belief in the value of the change.

## **8. Conclusion**

The process to start successful and dynamic residency programs appeared a bit overwhelming at times, but it was a meaningful experience. The main pillars of implementation for a successful graduate medical education program encompass all “3Fs”; program faculty, facilities, and finances to build and support a cutting-edge, competency-based medical education. The advice to other programs is to embrace the experience and help encourage growth in graduate medical training positions to create succession and increase the number of physicians to help prevent reduce of physician shortage.

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## References

- [1] Dall T, Reynolds R, Ritashree Chakrabarti P, Kari Jones P, Iacobucci W. Update the Complexities of Physician Supply and Demand: Projections from 2017 to 2033. In: Final Report Association of American Medical Colleges. 1300 Connecticut Ave., NW, Suite 800 Washington, DC 20036: IHS Markit Ltd.; 2020
- [2] Karen Fisher J. Chief Public Policy Officer Academic Health Centers Save Millions of Lives June 4, 2019. Available from: <https://www.aamc.org/news-insights/academic-health-centers-save-millions-lives>
- [3] Accreditation Council for Graduate Medical Education Bylaws. 2018. Available from: [https://www.acgme.org/Portals/0/PDFs/ab\\_ACGMEbylaws.pdf](https://www.acgme.org/Portals/0/PDFs/ab_ACGMEbylaws.pdf)
- [4] Shahian DM, Liu X, Meyer GS, Normand S-LT. Comparing teaching versus nonteaching hospitals: The association of patient characteristics with teaching intensity for three common medical conditions. *Academic Medicine*. 2014;**89**(1):94-106
- [5] Hospitals ST. Sustaining Teaching Hospitals. 2019. Available from: <https://www.aamc.org/news-insights/teaching-hospital-sustainability>
- [6] Pugno PA, Gillanders WR, Kozakowski SM. The direct, indirect, and intangible benefits of graduate medical education programs to their sponsoring institutions and communities. *Journal of Graduate Medical Education*. 2010;**2**(2):154-159
- [7] Morris CG, Chen FM. Training residents in community health centers: Facilitators and barriers. *Annals of Family Medicine*. 2009;**7**(6):488-494. DOI: 10.1370/afm.1041
- [8] Burke LG, Frakt AB, Khullar D, Orav EJ, Jha AK. Association between teaching status and mortality in US Hospitals. *Journal of the American Medical Association*. 2017;**317**(20):2105-2113
- [9] Burke LKD, Orav EJ, Zheng J, Frakt A, Jha AK. Do academic medical centers disproportionately benefit the sickest patients? *Health Aff (Millwood)*. 2018;**37**(6):864-872
- [10] Burke LG, Khullar D, Zheng J, Frakt AB, Orav EJ, Jha AK. Comparison of costs of care for medicare patients hospitalized in teaching and nonteaching hospitals. *JAMA Network Open*. 2019;**2**(6):e195229-e195229
- [11] Khullar D, Frakt AB, Burke LG. Advancing the academic medical center value debate: Are teaching hospitals worth it? *Journal of the American Medical Association*. 16 July 2019;**322**(3):205-206. PMID: 31206128
- [12] Stipelman CH, Poss B, Stetson LA, et al. Financial analysis of pediatric resident physician primary care longitudinal outpatient experience. *Academic Pediatrics*. 2018;**18**(7):837-842
- [13] Ken Abrams M, Balan-Cohen A, Durbha P. Growth in Outpatient Care: The role of Quality and Value Incentives. Deloitte Insights, Deloitte Development LLC. Member of Deloitte Touche Tohmatsu Limited; 2018. Available from: [https://www2.deloitte.com/content/dam/insights/us/articles/4170\\_Outpatient-growth-patterns/DI\\_Patterns-of-outpatient-growth.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/4170_Outpatient-growth-patterns/DI_Patterns-of-outpatient-growth.pdf)
- [14] Julia Adler-Milstein JK, Bates DW. Telehealth among US hospitals: Several factors, including state reimbursement and licensure policies, influence adoption. *Health Affairs*. 2014;**33**(2):207-215
- [15] Teaching Hospitals lead in Telehealth Adoption. AAMC.ORG. Dec 2019

- [16] ACGME Institutional Requirements. 2018. Available from: <https://www.acgme.org/Portals/0/PFAssets/InstitutionalRequirements/000InstitutionalRequirements2018.pdf?ver=2018-02-19-132236-600>
- [17] Coutre L. Summa Emergency Medicine Residency Loses Accreditation, Health System Put on Probation Crain's Cleveland Business. 2017. Available from: <https://www.modernhealthcare.com/article/20170210/NEWS/170219988/summa-emergency-medicine-residency-loses-accreditation-health-system-put-on-probation>
- [18] Heisler EJ, Panangala SV, Mendez BH, Villagrana MA, Mitchell A. Federal Support for Graduate Medical Education: An Overview. CRS Report R44376, Version 9. Updated. Congressional Research Service; 2018. Available from: <https://fas.org/sgp/crs/misc/R44376.pdf>
- [19] Calculating Interim Rates for Graduate Medical Education (GME) Payments to New Teaching Hospitals. CMSgov, MLN Matters: Knowledge, Resources, Training. 27 Oct. 2017. Available from: [www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10240.pdf](http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/downloads/MM10240.pdf)
- [20] Eden J, Berwick D, Wilensky G. Graduate Medical Education That Meets the Nation's Health Needs. 500 Fifth Street NW, Washington, DC 20001: National Academies Press; 2014
- [21] Barajaz M, Turner T. Starting a new residency program: A step-by-step guide for institutions, hospitals, and program directors. Medical Education Online. 2016;**21**:32271-32271
- [22] This video provides. Completing an Application for ACGME Accreditation. 2020. Available from: [https://dl.acgme.org/courses/completing-an-application-for-acgme-accreditation?returnTo=/](https://dl.acgme.org/courses/completing-an-application-for-acgme-accreditation?returnTo=/learn/video/completing-an-application-for-acgme-accreditation)
- learn/video/completing-an-application-for-acgme-accreditation
- [23] Program directors and coordinators. Program directors and coordinators. 2020. Available from: <https://www.acgme.org/Program-Directors-and-Coordinators/Welcome/Accreditation>
- [24] LeVan DJ, Plizga LA, Wiley A, et al. The journey to ACGME accreditation: A program's perspectives and practical guidance from the ACGME. Journal of Graduate Medical Education. 2016;**8**(3):473-477
- [25] Bhatia SK, Bhatia SC. Preparing for a successful psychiatry Residency review committee site visit: A guide for new training directors. Academic Psychiatry. 2005;**29**(3):249-255
- [26] ACGME' CPRF. Common Program Requirements FAQs ACGME. 2017. Available from: <https://www.acgme.org/Portals/0/PDFs/FAQ/CommonProgramRequirementsFAQs.pdf>, 2019
- [27] Nasca TJ, Philibert I, Brigham T, Flynn TC. The next GME accreditation system—Rationale and benefits. The New England Journal of Medicine. 2012;**366**(11):1051-1056
- [28] Eric S. Holmboe MLE, CAE Stan Hamstra. The Milestones Guidebook. Version 2016. Available from: <http://www.acgme.org/Portals/0/MilestonesGuidebook.pdf>
- [29] Michael SH, Rougas S, Zhang XC, Clyne B. A content analysis of the ACGME specialty milestones to identify performance indicators pertaining to the development of residents as educators. Teaching and Learning in Medicine. 2019;**31**(4):424-433
- [30] Williamson A. The Curriculum in General Internal Medicine. Clinical Medicine (London, England). 2019;**19**(5):429



- [31] Gardner AK, Scott DJ, Choti MA, Mansour JC. Developing a comprehensive resident education evaluation system in the era of milestone assessment. *Journal of Surgical Education*. 2015;**72**(4):618-624
- [32] Irby DM, O'Sullivan PS. Developing and rewarding teachers as educators and scholars: Remarkable progress and daunting challenges. *Medical Education*. 2018;**52**(1):58-67
- [33] The Edinburgh declaration. *Medical Education*. 1988;**22**(5):481-481. DOI: 10.1111/j.1365-2923.1988.tb00788.x
- [34] Narayan AP, Whicker SA, McGann KA. An innovative process for faculty development in residency training. *Teaching and Learning in Medicine*. 2012;**24**(3):248-256
- [35] ACGME Common Program Requirements. 2020. II.B. Faculty;12-14. Available from: <https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPRResidency2020.pdf>
- [36] De Golia SG, Cagande CC, Ahn MS, Cullins LM, Walaszek A, Cowley DS. Faculty development for teaching faculty in psychiatry: Where we are and what we need. *Academic Psychiatry*. 2019;**43**(2):184-190
- [37] Bhugra D, Tasman A, Pathare S, et al. The WPA-lancet psychiatry commission on the future of psychiatry. *The Lancet Psychiatry*. 2017;**4**(10):775-818
- [38] Revised Common Program Requirements Effective ACGME. 2017:21. July 1, 2017
- [39] O'Toole JK, West DC, Starmer AJ, et al. Placing faculty development front and center in a multisite educational initiative: Lessons from the I-PASS handoff study. *Academic Pediatrics*. 2014;**14**(3):221-224
- [40] Merriam SB, Spataro B, Hamm ME, McNeil MA, DiNardo DJ. Video observation with guided reflection: A method for continuing teaching education. *Journal of Graduate Medical Education*. 2018;**10**(4):416-422
- [41] Klein M, Niebuhr V, D'Alessandro D. Innovative online faculty development utilizing the power of social media. *Academic Pediatrics*. 2013;**13**(6):564-569
- [42] Cook DA, Steinert Y. Online learning for faculty development: A review of the literature. *Medical Teacher*. 2013;**35**(11):930-937
- [43] Johnson S. *Where Good Ideas Come from: The Natural History of Innovation*. New York, NY: Riverhead Books; 2011
- [44] Tebbe J. Where good ideas come from: The natural history of innovation. *Journal of Psychological Issues in Organizational Culture*. 2011;**2**(3):106-110
- [45] Carney PA, Eiff MP, Waller E, Jones SM, Green LA. Redesigning Residency Training: Summary Findings From the Preparing the Personal Physician for Practice (P4) Project. 2018
- [46] Chamberlain LJ, Wu S, Lewis G, et al. A multi-institutional medical educational collaborative: Advocacy training in California pediatric residency programs. *Academic Medicine: Journal of the Association of American Medical Colleges*. 2013;**88**(3):314-321
- [47] Weaver SP. Increasing Residency Research Output While Cultivating Community Research Collaborations. *Family Medicine*. 2018;**50**(6):460-464. DOI: 10.22454/FamMed.2018.734196
- [48] Miser WF, Mitchell KB. Innovating Family Medicine Residency Education Through Collaboration. *Family Medicine*. 2018;**50**(7):501-502. DOI: 10.22454/FamMed.2018.462144

- [49] Bowe SN, Schmalbach CE, Laury AM. The state of the otolaryngology match: A review of applicant trends, “impossible” qualifications, and implications. *Otolaryngology and Head and Neck Surgery*. 2017;**156**(6):985-990
- [50] Prober CG, Kolars JC, First LR, Melnick DE. A plea to reassess the role of United States medical licensing examination step 1 scores in Residency selection. *Academic Medicine : Journal of the Association of American Medical Colleges*. 2016;**91**(1):12-15
- [51] Gardner AK. How can best practices in recruitment and selection improve diversity in surgery? *Annals of Surgery*. 2018;**267**(1):e1-e2
- [52] Burkhart RA, Tholey RM, Guinto D, Yeo CJ, Chojnacki KA. Grit: A marker of residents at risk for attrition? *Surgery*. 2014;**155**(6):1014-1022
- [53] Hammond DA. Grit: An important characteristic in learners. *Currents in Pharmacy Teaching & Learning*. 2017;**9**(1):1-3
- [54] Kurian EB, Desai VS, Turner NS, et al. Is Grit the new fit? -assessing non-cognitive variables in orthopedic surgery trainees. *Journal of Surgical Education*. 2019;**76**(4):924-930
- [55] Vickers SM, Vickers AL. GRIT and resilience: Keys to the development of the Halsted resident in the John Cameron era. *Annals of Surgery*. 2018;**267**(2S Suppl 2):S22-s25
- [56] Kumar RD. Leadership in healthcare. *Anaesthesia & Intensive Care Medicine*. 2013;**14**(1):39-41
- [57] Kouzes JM, Barry ZP. The five practices of exemplary leadership: How ordinary people make extraordinary things happen. In: Kessler EH, editor. *Encyclopedia of Management Theory*. Los Angeles: Sage; 2013
- [58] Medicare Graduate Medical Education Payments: An Overview. 2019. Available from: <https://fas.org/sgp/crs/misc/IF10960.pdf>
- [59] Becoming a new teaching hospital: A guide to medicare requirements. Washington, DC: Association of American Medical Colleges; 2014. Available from: <http://creativeinonline.com/foothills/wp-content/uploads/2015/05/Becoming-a-New-teaching-hospital-a-guide-to-the-medicarerequirements-2014.pdf>