# **Defining Clinical Excellence in Hospital Medicine: A Qualitative Study**

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**Introduction:** There are now more than 50,000 hospitalists working in the United States. Limited empiric research has been performed to characterize clinical excellence in hospital medicine. We conducted a qualitative study to discover elements judged to be most pertinent to excellence in clinical care delivered by hospitalists.

**Methods:** The chiefs of hospital medicine at five hospitals were asked to identify their "clinically best" hospitalists. Data collection, in the form of one-on-one interviews, was directed by an interview guide. Interviews were transcribed verbatim, and the informants' perspectives were analyzed using editing analysis to identify themes.

**Results:** A total of 26 hospitalists were interviewed. The mean age of the physicians was 38 years, 13 (50%) were women, and 16 (62%) were non-white. Seven themes emerged that related to clinical excellence in hospital medicine: communicating effectively, appreciating partnerships and collaboration, having superior clinical judgment, being organized and efficient, connecting with patients, committing to continued growth and development, and being professional and humanistic.

**Discussion:** This qualitative study describes how respected hospitalists think about excellence in clinical care in hospital medicine. Their perspectives can be used to guide continuing medical education, so that offered programs can pay attention to enhancing the skills of learners so they can develop towards excellence, rather than using only competence as the desired target objective.

**Keywords:** clinical excellence, hospitalist, patient-centered care, hospital medicine, continuing medical education (CME), communication skills, interprofessional education, patient safety, performance improvement CE, professionalism/ethics, reflective practice, strategic issues in CME/CPD

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ospital medicine is a relatively new field in health care, and it has experienced tremendous growth over the past decade. In 2016, there were more than 50,000 hospitalists in the United States, and approximately 20% were employed by academic medical centers. These physicians, as well as many working at community hospitals that participate in the training of medical learners, are passing along their knowledge and skills to the next generation of health care providers.

The Society of Hospital Medicine, the largest professional medical society representing hospitalists, published "The Core Competencies in Hospital Medicine" as a blueprint to standardize expectations of practicing hospitalists, and to guide continuing medical education (CME) programs. CME is ultimately successful when it is able to influence physician behavior and results in improved patient outcomes. There is still a pervasiveness of competency-based approaches to medical education, including the continuing education phase. Calls for CME reform are often centered on the premise that competency-based

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educational programming is ineffective and aims for a low standard; and insufficient attention and effort are focused on the ultimate goal—moving practitioners to mastery.<sup>7</sup> Mastery, or excellence, can only be strived for and achieved after it has been clearly defined; such work could enlighten the aspirational target for CME offerings.

Defining, measuring, and identifying clinical excellence has, until recently, seemed unfeasible.8 It is known that patients highly value traits such as empathy, humanism, respect, and thoroughness in their physicians.<sup>9,10</sup> To generate a broad definition of clinical excellence in academia, Christmas et al studied the perspectives of exceptional clinicians working across different medical specialties in academic medical centers. Eight domains emerged: reputation, communication and interpersonal skills, professionalism and humanism, diagnostic acumen, skillful negotiation of the health care system, knowledge, scholarly approach to clinical care, and passion for clinical medicine.8 The manuscripts that followed more precisely defined clinical excellence in clinical specialties (such as cardiology, nephrology, and pediatrics) and relied heavily on published case reports. 11-13 When health care systems fail to identify and reward masterful clinicians, clinical excellence is undervalued, which results in depressed morale, and even faculty attrition from academic medical institutions. 14

Public reporting of hospital quality indicators is motivating hospital administrators and executives to attain high clinical performance levels (hospitalcompare.com) both for their reputation and because of financial incentives tied to meeting standards (such as the Centers for Medicare and Medicaid Services' quality measures). <sup>15</sup> These widely accessible data about hospitals'

quality are compelling administrators and executives to pay close attention not only to the overall aggregate performance of their providers, but also to each individual provider because a few outliers can have great impact even if the majority are striving for clinical excellence.<sup>16</sup>

In hospital medicine, hospitalist physicians also need to understand what is expected of them in relation to achieving clinical excellence. Limited empiric research has been published on the nature of clinical excellence in hospital medicine. With this in mind, we studied respected hospitalists in hopes of identifying the elements judged to be most pertinent to excellence in inpatient care.

# **METHODS**

# **Study Design**

This was a qualitative study of hospitalist physicians working at five independently administered hospitals located in and around two large cities, Baltimore, MD, and Washington, DC. A qualitative study design was selected to generate hypotheses and to allow themes to emerge that researchers did not anticipate. This study design is considered to be most appropriate for generating hypotheses and deepening understanding about subject matters.<sup>8</sup>

# **Setting and Subjects**

Two hospitals involved in the study are large academic hospitals (Johns Hopkins Hospital and Johns Hopkins Bayview Medical Center); the others are community hospitals within the Johns Hopkins Health System (Howard County General Hospital, Sibley Hospital, and Suburban Hospital). Hospitalist physicians of all the hospitals provide around-the-clock, everyday coverage.

The chiefs of hospital medicine at these hospitals were contacted and asked to identify their "clinically best" hospitalists, namely those who were most clinically respected within their groups. While their selections were based on their global impressions of the doctors in their groups, they have access to both objective and subjective data for all of their providers. Objective data include institutionally generated figures broken down to show individualized performance (eg, billing, internally tracked quality metrics, and note signing within specified time periods) and physician level outcomes compared with national benchmarks from sources such as Premier Healthcare Informatics<sup>17</sup> which provides mortality, readmission rates, and complications. Subjective data include complimentary communications from patients, staff, and physician colleagues and direct observation of care (during handoffs and from working side by side with colleagues). Because our goal was to purposively interview the top tier (approximately 20%) of the hospitalists within each group, we asked the chiefs to provide the appropriate number of names. All five chiefs complied and sent recommendations.

The 29 nominated hospitalists were emailed and invited to participate in the study. All but three hospitalists participated in the study (n = 26).

### **Data Collection**

One author (S.K.) scheduled a time to meet with each hospitalist physician to conduct a semi-structured interview.

An interview guide was developed by the study team to explore clinical excellence in hospital medicine. The initial interview guide was developed based on review of the existing literature on clinical excellence. <sup>8,18,19</sup> The interviews lasted 26 to 54 minutes, varying based on length of responses of the informants to follow-up prompts. Interviews took place in a private consultation room secured at each of the hospitals and were digitally audio recorded. One author (S.M.W.) with extensive experience in qualitative methods and clinical excellence took the lead in developing the interview guide. <sup>8,18,19</sup> After four interviews, two questions were added, and two questions were modified based on initial responses, (Table 1). Follow-up probes were used as necessary to encourage respondents to clarify and expand on their responses. We also collected basic demographic information about the informants (Table 2).

The study was approved by the institutional review board at the Johns Hopkins University School of Medicine, and by each of the research review committees at the community-based hospitals.

# **Data Analysis**

All audio recordings were transcribed verbatim. Transcripts were read and independently coded by at least two investigators using an editing analysis style, a qualitative analysis technique in which researchers identify "meaningful units or segments of text that both stand on their own and relate to the purpose of the study."20 With this style, the investigators identify units in the text that form the basis for the data-generated categories, which ultimately give rise to the meaning.<sup>21</sup> After the five interviews, a preliminary coding template was created. All investigators met periodically throughout the analysis phase to iteratively revise the codes and to begin to tentatively consider the emergent themes. In cases of discrepant coding between the investigators doing most of the coding, all authors discussed the unit of text, and the team was able to reach consensus in all instances. After analyzing 18 of the interviews, the data were yielding confirmatory ideas rather than novel ones (thematic saturation). Yet, all interviews were analyzed. This analytic process resulted in the organization of the codes into several thematic domains.

The final list of themes was sent to all informants, and they unanimously agreed that the themes were representative of their perspectives about clinical excellence in hospital medicine. This

#### TABLE 1.

# Interview Guide Used to Direct Interviews With Hospitalist Provider Informants

Were you aware that your divisional leader considers you to be an excellent clinician? Why do you think this is so?

During your care of patients today, name a few things that went really well. Please describe your role in an encounter that you felt particularly satisfied with or that makes you feel proud.

How do you think about clinical excellence in hospital medicine? How would you define a clinically excellent hospitalist?

What are the things that you are currently working on to grow and further improve as a hospitalist provider? Do you have any reflections on the evolution from competence to excellence in patient care for hospitalists?

How much time do you routinely spend with each patient? Do you think that there is a correlation between the amount of time that a hospitalist spends with patients and the ability to deliver clinically excellent care?

Can you tell me about a colleague who you think is clinically excellent? What makes that hospitalist clinically excellent?

# TABLE 2.

# Characteristics of the 26 Hospitalist Physician Informants

	All Physicians (n = 26)
Age, mean (SD)	38 (5.6)
Women, n (%)	13 (50)
Race, n (%)	
White	10 (38)
Asian	13 (50)
African/AA	2 (8)
Other	1 (4)
Academic hospitalist, n (%)	12 (46)
Clinical workload is >70% of physician's effort, n (%)	17 (65)
Hospital, n (%)	
JHBMC	8 (31)
JHH	4 (15)
HCGH	5 (19)
Suburban	6 (23)
SMH	3 (12)
No. min spent observing hospitalist, mean (SD)	280 (104.5)
Average time spent with each patient in minutes, mean (SD) $$	10.8 (8.9)

JHBMC, Johns Hopkins Bayview Medical Center; JHH, Johns Hopkins Hospital; HCGH, Howard County General Hospital; SMH, Sibley Hospital.

inquiry about whether there has been a sensible convergence of information from different sources, triangulation, is considered a qualitative research strategy to establish validity evidence.<sup>22</sup>

The authors reviewed all coded excerpts under each theme and agreed upon the quotes which were most representative for inclusion in the results section below.

# **RESULTS**

The average amount of clinical experience for the 26 hospitalist physician subjects was 6 years. The mean age of the hospitalist physicians was 38 years; 13 (50%) were women, and 16 (62%) were non-white (Table 2). Fourteen hospitalists (54%) worked at one of the nonacademic hospitals. In terms of clinical workload, most physicians (n = 17, 65%) devoted more than 70% of their time working in direct patient care.

# **Qualitative Analysis**

Comments made and stories told by informants were categorized into seven themes that relate to clinical excellence in hospital medicine. Table 3 shows the seven themes, the number of times each was mentioned, and the percentage of informants referring to each of the themes.

# Communicating Effectively

Informants described how this most commonly described theme is truly at the core of clinical excellence in hospital medicine. Specific facets within this theme that were believed to set the most excellent clinicians apart included listening without interruptions, taking the time to explain diagnosis and management until they are understood by the patient (and their family/caregivers), and being open to take in and assimilate perspectives from all parties.

Three distinct hospitalists explained:

We need to practice the art of listening without interruptions, to understand what is going on, and what the patients are really trying to tell us.

#### TABLE 3.

Major Themes Related to Clinical Excellence in Hospital Medicine That Emerged From Interviews With the 26 Hospitalist Physician Informants\*

Theme	Number of Times Each Theme Was Mentioned in All Interviews	Number (%) of Respondents Who Mentioned Theme
Communicating effectively	78	24 (92)
Having superior clinical judgment	75	23 (88)
Appreciating partnerships and collaboration	65	24 (92)
Being organized and efficient	61	21 (81)
Connecting with patients	52	21 (81)
Understanding need for professional growth and development	41	21 (81)
Being professional and humanistic	29	18 (69)

<sup>\*</sup>Respondents were not queried specifically about these themes, and these counts represent spontaneous and unsolicited responses in each subcategory.

The question that someone poses may not always actually be what they are asking you. They often have something else in mind, and you probably need to consider going beyond the question much of the time.

I think that one of the biggest problems in medicine right now is suboptimal communication, not only with our patients but also with nursing and our colleagues. To continue to be a clinically excellent hospitalist, I think you have to always keep in mind understanding others and effectively making yourself understood.

# Appreciating Partnerships and Collaboration

The interviewed hospitalist clinicians explained that they were merely a cog in a big wheel and how much they valued the input of all team members. These clinicians appreciated the entirety of the team and enjoyed working with others to help patients achieve their goals of care.

If you really want to be excellent as a hospitalist, you cannot be excellent by yourself, it has to be group effort.

A clinically excellent hospitalist is one who is able to efficiently care for hospitalized patients in a system-based manner with thoughtful coordination with other services. They collaborate with other allied health professionals so that the patient care is always of the highest quality.

# Having Superior Clinical Judgment

Because of the complexity of most hospitalized patients, hospitalists described needing to be able to decipher what is most clinically pertinent and which issues need to be addressed during the incident hospitalization. The informants described that their clinical judgment is being continually refined through practice, experience, analysis of their decisions, and thoughtful reflection on their choices.

An Assistant Professor stated a clinically excellent hospitalist is:

One who can take a lot of data and synthesize it to come up with a good care plan.

An academic hospitalist stated:

The physicians that I admire most are those who can look at someone with a lot of comorbidities, on a lot of medications, a lot of test results and they are able to focus on what is most relevant for helping the patient to recover or to meeting that patient's goals of care. They filter out all of the extraneous distractions, and hone in on how they can best care for and advocate for their patients.

# Being Organized and Efficient

The hospitalist informants conveyed that practicing hospital medicine depends on timely decisions and managing constant interruptions in workflow. They affirmed that to be effective, hospitalists need to learn to be well organized. The hospitalists expressed that skilled prioritization and efficiency are critical because there is just too much to be done on most days.

Two hospitalists made similar comments:

One of the biggest challenges we have as clinicians is that there are so many things going on at the same time, trying to keep it all straight, and trying not to forget the important things. You are always being distracted; people want your attention, often you are getting pulled in all different directions, which, unfortunately, can result in errors.

A clinically excellent hospitalist is someone who is able to accurately and efficiently diagnose the pathologies that he or she comes across—providing efficient, timely, and evidence-based care.

# Connecting With Patients

The hospitalists explained that meeting patients for the first time when they are acutely sick poses a challenge. Informants described wanting to relate deeply and bond meaningfully with patients rather than connecting on more superficial levels. The informants stated that establishing rapport with patients enabled these hospitalist clinicians to understand their patients as people and to gain their trust.

Two representative comments are shown below:

You need to also have great rapport with the patient you're dealing with. We have a challenge as hospitalists; we don't have the luxury that primary care physicians have to develop a relationship over many years to gain the trust of the patient, so you really need to be able to establish that within a few minutes of meeting a patient, exuding a sense of confidence, competence, and compassion.

An excellent hospitalist is one who will really click with patients so as to effectively guide the patients (and families) through their hospitalization. I have this notion that when you are a hospitalist, you date patients, and when you are a primary care physician, you are married to patients. I think that both need to connect meaningfully. We often fall short because we do not spend the time to understand the patient's perspective.

# Understanding Need for Professional Growth and Development

The hospitalists affirmed that they were genuinely committed to clinical excellence in hospital medicine and expressed insight regarding the need for continuous professional growth. Many expressed the obligation to be a lifelong learner for both keeping abreast of new knowledge and acquiring new skills. Some hospitalists described the importance of being

self-aware, so that they remain tuned in to areas needing to be strengthened.

To this end, one explained:

I can't just say "I'm not going to worry about that." You have to make sure that you are willing to improve yourself in areas that will allow you to provide the best possible care to every patient.

Another hospitalist felt that some colleagues keep improving, whereas many do not.

Very early on in the career of a physician, we all focus on getting faster. At a certain point, the really excellent people stop worrying about that and they actually slow down... they have a methodical approach that is like a well-trained martial artist.... That does not happen by accident. It is somebody who very purposefully sets out to be excellent. I think that is their secret... A lot of people get stuck at good... It really is just about very purposefully committing to improvement and growth.

# Being Professional and Humanistic

The American Board of Internal Medicine's physician charter delineates key elements of professionalism. <sup>23</sup> This coupled with humanism, which includes empathy and compassion, are two core values that are at the heart of the medical profession. Many of those interviewed discussed their own attentiveness to unfailing professionalism and consistent humanism while also describing how these are manifestly evident in all of their hospitalist colleagues they judge to be clinically excellent.

One hospitalist reflected on her approach to showing patients that she cares and is prepared to serve them:

Hospitalists do not always think to empathize with patients and to acknowledge just how devastating it is to be in the hospital. . . . Trying to make sure that you meet people on an emotional level first is so important. I have found that patients will then trust you more, they will trust what you are telling them, when they feel that you care about what they have been through. I tell every patient that I read through their records and that I am really sorry that they are suffering—with intractable nausea, chest pain, or having had to spend the night in the emergency department. It is not a pleasant experience. Acknowledging that goes a long way to bridging that gap between us and our patients, especially for hospitalists, because we have usually never met them before.

# DISCUSSION

This qualitative study, drawing upon the perspectives of clinicians working in both academic and community-based hospitals, provides insight into hospitalists' perspectives on clinical excellence. Their collective viewpoint is a combination of multiple characteristics, practices, and behaviors. The seven themes that emerged from our data correlate modestly with a previous study on clinical excellence in academia, and the core competencies as defined by the Accreditation Council of Graduate Medical Education. The themes of clinical excellence identified by hospitalists are behaviors and skills that hospital providers can learn, by striving for greatness and reflecting on their performance regularly. These behaviors and

attributes can form the basis for a definition of clinical excellence in hospital medicine. This ceiling to strive for is distinctly different from core competencies in hospital medicine<sup>5</sup> which represents the floor or threshold above which all are expected to surpass. Establishing excellence, and not competence, as the paramount objective for practicing physicians has implications for their professional development learning plans. This philosophical shift in expectations creates opportunities and challenges for CME programs.

A fundamental goal of continuing education is to facilitate the successful performance of practitioners. A systematic review by Cervero suggests that CME can enhance physician performance and patient health outcomes provided the programming is focused on outcomes considered important by physicians. Our study serves to clearly elaborate on the elements of clinical excellence deemed most important to hospitalists; clearly these skills provide examples of outcomes deemed essential to developing mastery in inpatient care. Cultivating CME such that it is interactive, engaging, and promotes reflection on practices—particularly if tied to clinical excellence themes—may have tremendous impact and lead to positive clinical outcomes. Such education can serve to inspire us to strive for the success that can be realized when one is genuinely committed to excellence and the *adjacent possible*. 26

Physician informants recognized that achieving clinical excellence in the hospital setting is not easy and requires genuine commitment over time. Hospitalists defined the unique challenges of inpatient care which include care transitions in the setting of acute illness, regular interruptions in workflow, and limited access to health information (including tests performed elsewhere). These factors and others impose barriers to delivering optimal care that can only be overcome by thoughtfulness, diligence, and continued training and development. Furthermore, such obstacles can also threaten patient safety and increase the risk of errors.<sup>27,28</sup> To mitigate these challenges, hospitalists share the responsibility of providing excellent care by working effectively within multidisciplinary teams and partnering to connect with patients, attesting to the fact that the whole is greater than the sum of the parts. In a November 2010 report from the Department of Health and Human Services on adverse events in the hospital,29 focused on approximately 134,000 Medicare beneficiaries who experienced harm, 44% of events were deemed preventable, and 8% were judged to have poor communication as the root cause. Registered nurses, patient care technicians, and support associates (eg, patient sitters) identified select behaviors and contributory factors that were at play among providers who were ineffective communicators in the hospitals: providers who gave orders rather than requests, providers who did not engage in bidirectional communication, providers who demonstrated labile mood, and those who judged rather than mediated conflict.<sup>30</sup> This data coupled with our study's findings could be used to propose CME programs that can provide specific training related to "communicating effectively" with hospitalized patients.

The hospitalists studied were keenly aware of the need for professional growth and continuing education throughout their careers. Sargeant interviewed high-performing family physicians regarding both formal and informal means of learning.<sup>31</sup> Those subjects understood that most of their learning and improvement was spawned from clinical experiences; it was facilitated by deep reflection.<sup>31</sup> The informants in that study

described the need for years of deliberate practice to achieve excellence.<sup>31</sup> Although some misattributed their inability to realize clinical excellence because of lack of innate talent, deliberate practice posits that feedback, coaching, and reflection can lead to the attainment of superior skills, and ultimately mastery.<sup>32</sup> This thinking correlates with research by Robertson showing that professional development could be stimulated by CME programs grounded in practice-based needs assessment, interactive methodologies, and contextual relevance.<sup>33</sup>

Several limitations of this study should be considered. First, a small number of informants were interviewed. However, our sample size is on par with or larger than many other qualitative studies that have been published in quality peer-reviewed journals. 8-10 We were also able to reach thematic saturation. Second, although the intention of our purposive sampling was to interview the most clinically excellent physicians within each group, it is possible that some chiefs were unaware of who their best clinicians truly are. If this did occur and some of the informants were in the top half of the doctor pool as opposed to the top 20% within their group, this would not be a fatal flaw. This study's premise and interview guide bear some resemblance to appreciative inquiry, in that we asked informants about excellence in hospital medicine and what enables some physicians to be exceptional. All those interviewed seemed to be exceptionally articulate and comfortable answering all questions. Third, the age of some informants and their amount of experience may seem less than if the top cardiologists across these same hospitals were interviewed. This is because hospital medicine is a relatively young field in medicine. Nonetheless, the number of hours that all informants have committed to their trade as hospitalists exceeds the 10,000 hours required to achieve mastery according to the tenets of deliberate practice.<sup>32</sup> Fourth, the informants interviewed came from five hospitals across two nearby cities, and it is possible that physicians located in another region might have different views about what constitutes clinical excellence in hospital medicine. However, these five distinct hospitals each have their own cultures, and they are guided by different divisional leaders and hospital administrators. Fifth, we interviewed only the top tier of hospitalists within each group. Different themes may have emerged had we randomly selected hospitalists from each group. Sixth, in keeping with the purposive sampling methodology, we identified a homogenous study sample, and we did not interview patients, primary care physicians, or hospital administrators to solicit their views. Of note, our results are not dramatically dissimilar from prior studies that have interviewed other study subjects. 15,16 Finally, although we have shown frequencies of themes, qualitative methods do not allow us to infer that this corresponds to their importance.

This manuscript has characterized clinical excellence in hospital medicine based on the perspectives of experienced and respected hospitalists. Before developing educational programs to support the professional growth of health care professionals, establishing clarity, if not consensus, about excellence in clinical practice is a critical first step. CME programs targeting competence are pervasive, and they are destined to fail to meet the needs of many because they are just not aiming high enough. If excellence is defined clearly and specifically, excellence-based CME programs can be developed and may bring value to CME by striving to have a greater impact on learners. Because clinical excellence is valued by all stakeholders in health care, especially

patients and their family members, CME programs that aspire to move learners closer to mastery should be widely supported by all.<sup>34</sup>

#### **Lessons for Practice**

- Thematic areas that describe clinical excellence in hospital medicine have been characterized, one of which includes being committed to professional growth and development.
- Achieving excellence in clinical care, an aspirational goal, is distinctly different from core competencies that are the threshold that allow for independent practice.
- Developing CME programs that are informed by standards of excellence will be more impactful than the prevalent competency-based approaches.

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#### **REFERENCES**

- State of Hospital Medicine: Nationwide Demand Continues for Hospitalists. Available at: https://www.hospitalmedicine.org/Web/Media\_Center/Press\_ Release/2014/State\_of\_Hospital\_Medicine\_Nationwide\_Demand\_Continues\_ for\_Hospitalists.aspx. Accessed September 5, 2014.
- Wachter RM, Goldman L. Zero to 50,000-the 20th anniversary of the hospitalist. N Engl J Med. 2016;375:1009–1011.
- 2014 State of Hospital Medicine Report. Available at: http://www. hospitalmedicine.org/Web/Practice\_Management/State\_of\_HM\_Surveys/ 2014.aspx. Accessed January 10, 2015.
- Wachter RM. Hospitalists in the United States-mission accomplished or work in progress? N Engl J Med. 2004;350:1935–1936.
- Society of Hospital Medicine (SHM). Core Competencies in Hospital Medicine. Available at: https://www.hospitalmedicine.org/Web/Education/ Core\_Competencies/Hospital\_Medicine\_Core\_Competencies/Web/Education/ Core\_Competencies.aspx?hkey=a0f64d1f-5024-4e35-99b4-6841ac849790. Accessed August 22, 2016.
- Mansouri M, Lockyer J. A meta-analysis of continuing medical education effectiveness. J Contin Educ Health Prof. 2007;27:6–15.
- Nahrwold DL. Continuing medical education reform for competencybased education and assessment. J Contin Educ Health Prof. 2005;25: 168–173.
- Christmas C, Kravet SJ, Durso SC, et al. Clinical excellence in academia: perspectives from masterful academic clinicians. *Mayo Clin Proc.* 2008; 83:989–994.
- Bendapudi NM, Berry LL, Frey KA, et al. Patients' perspectives on ideal physician behaviors. Mayo Clin Proc. 2006;81:338–344.
- Chang JT, Hays RD, Shekelle PG, et al. Patients' global ratings of their health care are not associated with the technical quality of their care. *Ann Intern Med*. 2006;144:665–672.
- 11. Ziegelstein RC. Clinical excellence in cardiology. *Am J Cardiol.* 2011;108: 607–611.
- 12. Geetha D, Lee SK, Srivastava A, et al. Clinical excellence in nephrology: examples from the published literature. *BMC Nephrol*. 2015;16:141.

- Mote PC, Solomon BS, Wright SM, et al. Clinical excellence in pediatrics. Clin Pediatr (Phila). 2014;53:879–884.
- Takett S, Eisele D, McGuire M, et al. Fostering clinical excellence across an academic health system. South Med J. 2016;109:471–476.
- Centers for Medicare and Medicaid Services. Quality Measures. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/index.html. Accessed December 29, 2016.
- Centers for Medicare & Medicaid Services. HCAHPS: Patients' Perspectives of Care Survey. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html. Accessed December 29, 2016.
- Premier Inc. Healthcare Improvement Company. Available at: https:// www.premierinc.com/about-premier/about-us/. Accessed December 13, 2016.
- 18. Wright SM, Carrese JA. Excellence in role modelling: insight and perspectives from the pros. CMAJ. 2002;167:638–643.
- Wright SM, Wolfe L, Stewart R, et al. Ethical concerns related to grateful patient philanthropy: the physician's perspective. J Gen Intern Med. 2013; 28:645–651.
- Crabtree BF, Miller WL. Doing Qualitative Research. Thousand Oaks, CA: Sage Publications; 1999.
- Malterud K. Qualitative research: standards, challenges, and guidelines. Lancet. 2001;358:483–488.
- 22. Carter N, Bryant-Lukosius D, DiCenso A, et al. The use of triangulation in qualitative research. Oncol Nurs Forum. 2014;41:545–547.
- American Board of Internal Medicine: Medical professionalism in the new millennium: a physician charter. Available at: http://abimfoundation.org/ what-we-do/medical-professionalism-and-the-physician-charter/physiciancharter. Accessed April 25, 2016.
- Accreditation Council for Graduate Medical Education. Implementing
  milestones and clinical competency committees. Available at: http://www.
  acgme.org/acgmeweb/Portals/0/PDFs/ACGMEMilestones-CCC-Assesment
  Webinar.pdf. Accessed December 29, 2016.
- Cervero RM, Gaines JK. The impact of CME on physician performance and patient health outcomes: an updated synthesis of systematic reviews. J Contin Educ Health Prof. 2015;35:131–138.
- Johnson S. Where Good Ideas Come from. New York, NY: Riverhead Books of Penguin Group (USA) Inc; 2010.
- 27. Ancker JS, Witteman HO, Hafeez B, et al. The invisible work of personal health information management among people with multiple chronic conditions: qualitative interview study among patients and providers. *J Med Internet Res.* 2015;17:e137.
- Pham HH, Grossman JM, Cohen G, et al. Hospitalists and care transitions: the divorce of inpatient and outpatient care. Health Aff (Millwood). 2008;27:1315–1327.
- Office of the Inspector General. Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries. Washington, DC: U.S. Department of Health and Human Services. Publication No. OEI-06-09-00090. Available at: http://oig.hhs.gov/oei/reports/oei-06-09-00090.pdf. Accessed April 25, 2016.
- 30. Dreachslin JL, Hunt PL, Sprainer E, et al. Communication patterns and group composition: implications for patient-centered care team effectiveness. *J Healthc Manag.* 1999;44:252–266.
- Sargeant J, Mann K, Sinclair D, et al. Learning in practice: experiences and perceptions of high-scoring physicians. Acad Med. 2006;81:655–660.
- Ericsson K. Deliberate practice and the acquisition and maintenance of expert performance in medicine and related domains. *Acad Med.* 2015;90: 1471–1486.
- Robertson MK, Umble KE, Cervero RM. Impact studies in continuing education for health professions: update. J Contin Educ Health Prof. 2003;23:146–156.
- Dreyfus S, Dreyfus H. A Five-stage Model of the Mental Activities Involved in Directed Skill Acquisition. Berkeley, CA: Operations Research Centre, University of California; 1980. Available at: http://www.dtic.mil/cgi-bin/ GetTRDoc?AD=ADA084551&Location=U2&doc=GetTRDoc.pdf. Accessed September 28, 2016.