

PERSPECTIVE

CAN WE LIVE-STREAM PRIMARY CARE?: CHALLENGES IN THE ADOPTION OF ECONSULTS AND VIDEO VISITS

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“**Y**ou’re killing the physical exam,” shouted one attending physician from the back of the Grand Rounds auditorium in response to our presentation on the benefits of incorporating video visits and eConsults into our medical practice. Given the data on the early success of this disruptive innovation, we were surprised by the vitriol in the room. Perhaps we should not have been, considering the amount of pushback even Laennec received after having invented the stethoscope.

Telemedicine encounters are capable of adding tremendous value to health care. There is an increasing amount of evidence that suggests numerous disease states can be managed successfully through video visits. Additionally, eConsults have created a collaborative work environment in which primary care providers can seek specialty guidance faster than ever before. These interventions serve the quadruple aim of enhancing the patient experience, improving population health, reducing costs, and returning joy to work for the clinical team. The reluctance of some providers to incorporate telemedicine into their clinical workflows has hindered progress for a variety of reasons. We thought it appropriate to share the common concerns and feared misconceptions raised by these providers, as well as our responses to their resistance.

“**Telemedicine isn’t good care.**” — Health care is a change-averse industry, and thus, there must be proof that the value-added is worth the change. Early data support that telemedicine is as successful as an in-

son visit for some clinical issues. According to a study published in the *Journal of General Internal Medicine*, patients with well-controlled hypertension were able to be managed equally well by telemedicine.¹ Additionally, a Cochrane review from 2016 demonstrated that virtual check-ins did “not demonstrate any important differences between face-to-face and remote asthma check-ups in terms of exacerbations, asthma control or quality of life”.²

“**But my patients are too sick and need to be cared for in an in-person setting.**” — Yes, it is true that some patients are very sick and need in-person care to help facilitate their care plan, suggesting that telemedicine is not a solution for every patient every time. However, some of the patients we perceive to be too sick may not actually be too sick for telemedicine. Many chronically ill patients struggle to attend their medical appointments and are vulnerable to acquiring infections in the waiting room and could easily benefit from health care delivered to them at home. With the addition of specialty eConsults, we could greatly reduce the burden of the number of trips these patients would have to make to offices. In particular, these patients could utilize video visits as a means to obtain routine, periodic check-ups, and could even leverage video visits in emergency situations where their symptoms cannot be readily assessed over the phone. Many aspects of the physical examination, such as examining rashes, assessing difficulty of breathing, and even collab-

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A DAY IN THE LIFE

Joseph Conigliaro, MD, MPH, Editor in Chief, *SGIM Forum*

“... the newspapers of Utopia, he had long ago decided, would be terribly dull.”

—Arthur C. Clarke, 2001: A Space Odyssey

I get my news from a smattering of sources but mostly from lead stories curated on *Google’s* news feed. I try to be selective and cognizant of the source of information and to include stories from legitimate sources that do not necessarily share the same views as me. The latter is always the harder effort. Since these editorials are delayed in publication by about six weeks I am writing this month’s editorial a few days before Christmas. Before starting to write, I decided to review the morning news. As I got up this morning to compose this editorial, the news was particularly sobering. Many of these headlines affect our patients as well as our ability to provide care for them as general internists, either directly or indirectly.

Two days prior, the House of Representatives voted to impeach the current president of the United States, although Speaker Nancy Pelosi had yet to send the articles of impeachment to the Senate. I am not planning to discuss the issue of impeachment or its effect on the upcoming election in November 2020. Will it help or hurt the president’s chance at reelection? I will say that the dysfunction and partisan rancor in our current government and lack of a true moral compass and a vision for a just United States have kept us from moving forward thereby making our jobs much harder. The headlines I read included the following:

- “Trump Touts Border Money In Bill Despite Congress Keeping Funding Flat”
- “Donald Trump Launches ‘Space Force’: A \$738 Billion Defense Bill To Boost US Military Superiority In Space”
- “New Zealand Passes Sweeping Ban On Semiautomatic Weapons”
- “U.K. Parliament Backs Boris Johnson’s Brexit Deal, Clearing Major Hurdle”
- “FDA Approves Ebola Vaccine With 100% Success Rate”
- “FDA Approves Trastuzumab Deruxtecan For HER2+ Breast Cancer”
- “Congressional Deal Could Fund Gun Violence Research For First Time Since 1990s”

Several of these headlines report on the choices made by our leaders—choices that will have a profound effect on the future of our world. Some, like New Zealand’s ban on semiautomatic weapons and the passage of a

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SETTING OUR COURSE

Karen DeSalvo, MD, President, SGIM

Council refreshed the SGIM strategic plan last year as part of our refresh year. We crafted a new vision that articulates our dedication to creating a “just system of care in which all people can achieve optimal health”. We also refined our SGIM mission to cultivate innovative educators, researchers, and clinicians in academic general internal medicine. Further, we established a set of shared values to provide further insights about why we do what we do as SGIM.



The SGIM Council is just coming off our winter retreat in Birmingham at the site of the 2020 Annual Meeting. The retreat is an opportunity for us to spend time together to talk about issues of broad import to the society over the next few years. As always, there are many important topics to select from given the dynamic times in which we live and the broad reach of the work and innovative activity of our members spanning medical education, research, clinical practice, and policy.

As you all will recall, Council refreshed the SGIM strategic plan last year as part of our refresh year.¹ We crafted a new vision that clearly articulates our dedication to creating a “just system of care in which all people can achieve optimal health”. We also refined our SGIM mission to cultivate innovative educators, researchers, and clinicians in academic general internal medicine, leading the way to better health for everyone.² Further, we established a set of shared values to provide further insights about why we do what we do as SGIM:

- **High-value, evidence-based, person-centered, and community-oriented health care;**
- **Attention to population health outcomes and their social determinants;**
- **Excellence, innovation, and leadership in education, research, and clinical practice;**
- **Interdisciplinary collaboration and team-based care;**
- **Collegiality, mentorship, and career development; and**
- **Diversity, equity, and inclusion.**

This strategic work reflected a series of conversations with staff, council, and other leadership over the course of the past year. It was a time when we reflected on how an organization with our passion, history and scope could make the most impact. Our conversations caused us to learn to balance our enthusiasm over doing many things—a clear trait of many general internists, with our need to be focused for maximal impact.

For this strategic planning process, we developed goals to ensure that our short-term actions would lead us to the long-term vision. As we all know, this type of

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The SGIM Forum, the official newsletter of the Society of General Internal Medicine, is a monthly publication that offers articles, essays, thought-pieces, and editorials that reflect on healthcare trends, report on Society activities, and air important issues in general internal medicine and the healthcare system at large. The mission of the Forum is to inspire, inform, and connect—both SGIM members and those interested in general internal medicine (clinical care, medical education, research, and health policy). Unless specifically noted, the views expressed in the Forum do not represent the official position of SGIM. Articles are selected or solicited based on topical interest, clarity of writing, and potential to engage the readership. The Editorial staff welcomes suggestions from the readership. Readers may contact the Editor, Managing Editor, or Associate Editors with comments, ideas, controversies, or potential articles. This news magazine is published by Springer. The SGIM Forum template was created by Howard Petlack.

MEDICAL EDUCATION UPDATE

Rachel Stark, MD, MPH; Dominique Cosco, MD; Darlene LeFrancois, MD;
Christopher Moreland, MD; Daniella Zipkin, MD

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We report on the Medical Education Update presented at the 2019 SGIM National Meeting in Washington, DC. Five members of the SGIM Education Committee reviewed all manuscript titles from 14 major medical education journals published in 2018. Two reviewers were assigned to each journal and identified articles relevant to the General Internal Medicine (GIM) medical education community (n=168). Articles were assessed on a nine-point scale based on the following criteria: relevance to a GIM audience, importance of the study question, quality of methodology, and generalizability. Two reviewers independently assessed each of the 168 articles based on these criteria. Thirteen articles were identified as finalists, and group consensus identified the six papers chosen for presentation. Manuscripts spanning the scope of undergraduate, graduate, and continuing medical education were included. The following is a brief synopsis of each of the presented papers:

Undergraduate Medical Education:

Garcia A, Kuo T, Arangua L, et al. Factors associated with medical school graduates' intention to work with underserved populations: Policy implications for advancing workforce diversity. *Acad Med.* 2018; 93(1): 82-89.

Article Focus: Garcia and colleagues analyzed the national AAMC Medical School Graduation Questionnaire to examine intent to work with underserved populations (IWUP) as it relates to underrepresented minority status (URM). The 2010-2012 survey included 40,846 graduates, of whom 49.5% were women, 16.6% were URM, and 32.4% intended to practice primary care.

Key Messages: Median educational debt was \$160,000 with URM graduates reporting higher overall debt (p<.001 for trend across several debt levels). Female gender (aOR 1.61), URM status (aOR 2.62), and intent to practice primary care (aOR 1.81) were all significantly associated with IWUP (p<.001). Debt burden was not a barrier to IWUP—in fact, greater debt was associated with a greater likelihood of IWUP indicating

a dose response relationship (aOR 1.61 for >200k debt, p<.001). URM graduates were more likely than non-URM graduates to state IWUP within all categories of career choice—primary care or specialty care, clinical or non-clinical (p<.001 for trend) – as well as all levels of debt (p<.001 for trend). Adding intention to enter into loan forgiveness programs into the multivariate model eliminated the association between educational debt and IWUP (aOR 1.1 for >200k debt, p=.07).

Strengths and Limitations: Associations between URM status, female gender, and primary care career choice with IWUP are robust. The question of whether entering into loan forgiveness programs is a cause or effect of IWUP cannot be determined in this cross-sectional study. The data informs recruitment and incentive programs for IWUP.

Graduate Medical Education:

Smith C, Newman LR, Huang GC. Those who teach can do: Characterizing the relationship between teaching and clinical skills in a residency program. *JGME.* 2018; 10(4):459-463.

Article Focus: Recognizing that residents have dual roles as both clinicians and teachers, the aim of this paper is to examine the relationship between these roles and to understand how learning about teaching might enhance clinical skills of trainees. The authors performed a two-phase qualitative analysis beginning with a literature search to identify attributes of physicians and clinical teachers. Qualitative data was extracted from 300 narrative evaluations of trainees in a large urban academic Internal Medicine (IM) residency program, analyzing the comments made about low, high and typical resident performers. The authors conducted a focus group of graduating trainees in their medical education track to confirm they had identified all themes and to refine their framework. They identified four main themes (relationships, communication, relationship to self, relationship

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with knowledge) and eighteen sub-elements of these themes that characterized the relationship between teaching and clinical skills.

Key Messages: Improving the skills of residents as teachers may jointly benefit the education of learners and improve the care of patients.

Strengths and Limitations: This is the first study to investigate overlap between clinical skills and teaching skills of residents, beginning a dialogue on this important topic for trainees and medical educators. The study was conducted at a single IM residency program, limiting its generalizability.

Abedini N, Stack S, Goodman J, et al. It's Not Just Time Off: A Framework for Understanding Factors Promoting Recovery From Burnout Among IM Residents. *JGME*. 2018; 10 (1): 26-33.

Article Focus: In this qualitative study, the authors aimed to identify factors that promoted recovery from burnout in IM residents, as well as factors that may have a role in preventing subsequent episodes of burnout during training.

Key Messages: Semi-structured interviews with PGY 2, PGY 3, and recent graduates of the University of Washington IM Residency Program demonstrated that burnout could be divided into two types: circumstantial and existential. Circumstantial burnout was due to self-limited circumstances and environmental triggers. Existential burnout referred to feelings of loss of meaning in medicine and an uncertain professional role. Interventions on circumstantial burnout focused on relieving circumstantial burnout factors while interventions on existential burnout relied on promoting longitudinal reflection practices and discussion of professional growth as a physician amongst peers.

Strengths and Limitations: Distinguishing between these two types of burnout could be beneficial to a residency program in addressing recovery of current burnout and prevention of subsequent burnout.

Study conclusions are limited from this single center study, using a single item burnout screening tool and involving participants that previously experienced burnout episodes.

Raimo J, LaVine S, Spielmann K, et al. The Correlation of Stress in Residency with Future Stress and Burnout: A 10-year Prospective Cohort Study. *JGME*. 2018; 10 (5): 524-531

Article Focus: This study sought to evaluate whether stress during residency is correlated with stress and/or burnout years after one enters professional practice. The authors hypothesized that stress in residents would correlate with stress and/or burnout 10 years into practice.

Key Messages: In this prospective cohort study, validated survey instruments were used to survey all IM residents at North Shore University Hospital between 2003-05. The same physicians were surveyed 10 years later to assess current levels of stress, burnout, and career satisfaction. One hundred and forty three residents completed the initial survey and 81 physicians completed the follow up survey. There was a significant correlation with emotional stress in residency and emotional stress in professional practice ($p < .001$). Emotional stress in residency was correlated with emotional exhaustion ($p < .007$) and depersonalization ($p = .029$). A multi-variate analysis revealed emotional distress in residency is associated with emotional distress in practice ($p = .005$) and depersonalization ($p = 0.28$). The authors conclude that emotional distress and burnout in residency can have implications on a physician's future emotional stress and association with future burnout.

Strengths and Limitations: This study is one of few that looks at implications of burnout and stress during residency with one's future career. The study used multiple validated survey instruments to measure stress and burnout. Conclusions are limited by single center data collection, lack of contact follow up for all initial participants, and potential response bias.

Rykskina KL, Holmboe ES, Shea JA, et al. Physician experiences with high value care in internal medicine residency: Mixed-Methods study of 2003-2013 residency graduates. *Teaching and Learning in Medicine*. 2018. 30(1): 57-66.

Article Focus: GME stakeholders have increasingly emphasized the importance of high value care (HVC). Residency programs have variably incorporated HVC, with unclear effects on residents' preparedness to engage in HVC practices. This study aimed to describe IM residency graduates' perspectives of HVC practices, evaluate residency program characteristics associated with HVC experiences, and identify respondent themes regarding HVC experiences.

Key Messages: Result trends reflected that respondents graduating more recently (2011-13 v. 2007-10) appeared more often to report HVC-relevant education (e.g., costs of care, justifying tests) and feeling prepared to apply HVC practices (e.g., participating in shared decision making); the only statistically significant differences were found for using overtreatment guidelines in patient conversations, and prescribing generic medications ($p < 0.01$). A higher degree of HVC-related elements correlated positively with primary care track training and less burnout at graduation ($p < 0.04$). Qualitative HVC education themes included HVC-relevant concerns regarding malpractice, clinical systems' alignment with teaching, and seeking more HVC training. Residency HVC exposure and content are variable, though more likely for those who trained more recently. For effective HVC training, faculty development, formal training, and collaboration with clinical partners will be critical.

Strengths and Limitations: Strengths include structured survey development and a mixed methods approach with random national sampling of IM physicians through the AMA Masterfile with 50.6%

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SOCIAL MEDIA: ARE YOU CONFLICTED?

Tiffany I. Leung, MD, MPH, FACP, FAMIA; Gaetan Sgro, MD

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This article was modeled after *The New York Times*' opinion feature, The Conversation, and has been lightly edited for clarity.

Tiffany: Good morning, Gaetan! Having just checked my Instagram feed and Twitter for the latest #FOAMed (free open access medicine) news and pearls, I couldn't help but notice the occasional product advertisement or self-promotion. Physicians are carving out side gigs and businesses that complement their clinical jobs and/or transition to entirely non-clinical jobs, sometimes working in a non-health care industry altogether. Also, Instagrammable moments are harder to pass up for bigger and broader swaths of generations.¹ So here's the next conversation starter: where should the ethical line be drawn between the clinical practice of medicine—and our Hippocratic oaths to patients' health and well-being—and modern physician work or leisure that involves social media?

Gaetan: Greetings, Tiffany. What a timely topic. Maybe you noticed that last week, I was invited by a Twitter friend to post one photo (without people or explanations) per day for seven days, and to invite a new friend to participate with each post. And didn't you join in with a photo of one of those lovely Amsterdam canals? It's a modern take on the chain letter format that was popular when I was a kid, only now I'm a physician with a "professional" Twitter profile that identifies me as a "clinician and educator." That's the kind of bio that makes me think twice about posting glamor shots of cheesesteaks and hoagies (as I might have in my younger days). And then there's the related issue of physicians' relationships to industry. I think all of this falls under the heading of "professionalism," and raises questions about the images we project and the influence we wield on social media.

Tiffany: Indeed, I joined in and chain tweeted, posting a photo at dusk from Ghent, Belgium (#nofilter)! More importantly, you've raised a key part of the conflict here: professionalism. As physicians, we practice a profession, meaning we are experts who are specially trained in a particular field and are expected to abide by certain social and behavioral norms that reflect the expertise we

practice.² Related to this is also the ethical and moral obligation for physicians to disclose conflicts of interest, even—or especially—when those conflicts potentially are ones created on their own. Consider, for example, the history of pharmaceutical companies' influence on physicians' prescribing behaviors and, in turn, their effect on patient care, outcomes, and related costs. Could using social media make us more vulnerable to behavioral nudges, conflicts of interest, and consequent unintended effects on patient care?

Gaetan: I don't know that social media necessarily invites conflicts of interest as much as it may amplify ones that already exist, but I'm more interested in the professionalism question. You mentioned #FOAMed, the twitter hashtag for Free Open Access Medicine, which is emblematic of a major shift in the way doctors receive and share information. Platforms like Twitter have allowed physicians to circumvent traditional channels—like the peer-reviewed publication process—to communicate directly with each other and the general public. This feels like a mostly positive development; it seems like every day someone is giving Grand Rounds on how to leverage Twitter to advance careers in academic medicine. But the open access model has some potential drawbacks. For an impulsive and often impassioned tweeter, the lack of editorial oversight is a bit frightening. On one hand, I'm free to offer an unlimited quantity of unsolicited advice and opinion. On the other, we're all just one poorly-considered post away from undermining our professional standing. One question is how much does professionalism depend on the kind of "professional distance" that social media is erasing?

Tiffany: Your point raises a really interesting crossroads between what is meant to be "open access" versus just microblogging via social media. Has "open access" been co-opted to mean something on social media that is different from what it was originally intended? In academic publishing, open access refers to removing paywalls between publishers and readers—and to this day remains a point of contention that is a whole other ethical quandary in itself. But is #FOAMed the same

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thing? Are we claiming to remove a paywall from something that was never intended to have one in the first place? At this point, I'm feeling obligated on the note of social media and professionalism to highlight key guidance statements on this for physicians from the American Medical Association,³ American College of Physicians and the Federation of State Medical Boards.⁴ The latter I think touches precisely on what you're referring to: "It is paramount to...ensure trust in physicians and in the medical profession...To protect patients and the public and promote quality health care."

Gaetan: I just double checked and can confirm that #FOAMed is indeed a free for all of tweetorials, evidence-based medicine, stories, and opinions related to the medical profession. The vast majority of contributors are physicians, suggesting that this and other hashtags (I'm looking at you #medtwitter) have become important online spaces for doctors to teach, learn, reflect, and network. Not surprisingly, advertisers have noticed. A brief scroll through one of my personal favorites, #medhumchat, revealed ads for a urine biomarker to detect bladder cancer, a popular over-the-counter cold medicine, and... wait for it... Red Lobster!

Tiffany: This sounds like a concept again appropriated and

morphed into something different than it originally was intended to convey, which is both unsurprising in how human language and communication has evolved, but also could be viewed as a disappointment regarding the devaluation of scientific method and medical knowledge. I risk antiquating myself in saying that, and should clarify that I am absolutely an advocate for change and progress. And I am also grateful for the serendipitous opportunities to connect with people from all over the world via social media: it happens with increasing frequency every year that I "meet" a researcher or advocate or clinician through social media interactions well before I ever meet them in-person. But the virtual community and network brings us into each other's orbit to be able to foster connections around a common value or belief, cause, or more simply, a shared academic topic of interest. So, Gaetan, what can we say in closing about where social media and physicians' personal and professional lives intersect? What responsibilities and positions should we be taking as a community to ensure the veracity and integrity of all that #FOAMed along with the (mis)information out there?

Gaetan: Well it doesn't sound like either of us are willing to give up the #FOAMed or Twitter, so how

about "Tweet like your patients are watching." (Because they are.)

References

1. Thomas K. A Rival to botox invites doctors to party in Cancun, with fireworks, confetti and social media posts. 2019. *New York Times*. <https://www.nytimes.com/2019/05/15/health/evolus-wrinkles-toxin-jeuveau.html>. Published May 15, 2019. Accessed January 15, 2020.
2. Barley SR, Tolbert PS. Introduction: At the intersection of organizations and occupations. <https://digitalcommons.ilr.cornell.edu/articles/443>. Published 1991. Accessed January 15, 2020.
3. Professionalism in the use of social media. *AMA*. <https://www.ama-assn.org/delivering-care/ethics/professionalism-use-social-media>. Accessed January 15, 2020.
4. Farnan JM, Snyder Sulmasy L, Worster BK, et al. Online medical professionalism: Patient and public relationships: policy statement from the American College of Physicians and the Federation of State Medical Boards. *Ann Intern Med*. 2013 Apr 16;158(8):620–7.

SGIM

FROM THE EDITOR (continued from page 2)

funding deal to study gun violence, leave me with some hope that change is possible. Other stories report on the advancements made in the treatment and prevention of disease where just a few years ago we had no such progress.

In this issue, we have a few headlines of our own. SGIM President Dr. Karen DeSalvo shares a column

on the work of the SGIM Council regarding SGIM's strategic plan, related metrics, and the resulting dashboard. Dr. DeSalvo, along with immediate past president, Dr. Corbie-Smith, CEO Dr. Eric Bass, Deputy CEO Kay Ovington, and the rest of the Council have shown true leadership in the choices they've made—choices that will move our

Society forward and achieve its long-term goals.

A must read for every SGIM member!

We also have headlines about the use of telemedicine, medical education, social media, and the use of teaching champions as well.

It's a good news day.

SGIM

EVERYBODY HAS A BODY: AN INTERNIST EXPERIENCE AS AN ANATOMY TEACHER

Maria G. Frank, MD, FACP, FHM

Dr. Frank (maria.frank@dhha.org) is an associate professor of medicine at the University of Colorado School of Medicine and a hospitalist at Denver Health and Hospital Authority.

The path to clinical mastery involves many aspects ranging from communication and interpersonal skills, professionalism, passion for clinical medicine, knowledge, and diagnostic acumen. The more knowledge and skills we develop, the more tools we can use at the bedside. Likewise, the more basic science knowledge, the more likely we can reason and troubleshoot a challenging case. For the clinician, anatomical literacy is necessary not only for procedures (surgical and bedside) but also for a skillful physical examination, interpretation of radiologic testing, and increasingly these days, for rationally incorporating use of point-of-care ultrasonography (POCUS) to our bedside tools.

Throughout my years as a bedside faculty, I experienced working with medical students who struggled to apply anatomical content—taught to them only a couple of years prior—to a bedside conundrum. Some questions were as simple as what organs or layers are they expecting to find during a bedside procedure or examination. Others required to apply physical findings, such as a motor deficit, to decide additional testing based on predicted area of injury. I even encountered the unengaged student who answered “I did Anatomy two years ago, I don’t remember this.” Of course, these experiences only fueled my desire to become more involved in early stages of medical education. Applying for the Human Body Block (HBB) clinical director position at my institution in 2016 surprised no-one. After all, I had been an Anatomy teaching assistant for six years, and an anatomy instructor for 3 more years at the University of Buenos Aires, Argentina.

At our institution, Human Body Block, which encompasses Anatomy and Embryology, was historically taught by non-clinicians. The course is the first block for our incoming medical students and their first exposure to medicine. It has two block directors, one PhD and one MD; however, for many years, the MD director was a non-clinician (MD researcher); four to six instructors and many teaching assistants. It runs for nine weeks and is divided into three units: musculoskeletal; thorax, abdomen and pelvis; and head and neck. When the position became available, I applied; and, in 2017, I joined the block as the clinical director. I was dazed not only by the

high quality of the teachers but also by the magnitude of the content being taught with limited clinical context. Because of the amount of knowledge the students were expected to learn in those nine weeks, it was understandable that they would memorize it, rather than incorporate or learn it.

After witnessing the course first hand in 2017, we (both block directors) embarked in the journey to improve our curriculum. Our goal was to make our learning objectives learner and clinically relevant; improve our student assessment tools; modernize our didactic methodology; and build ways in which students would have optimized opportunities for content review and application.

Our endeavor resulted in the following changes to the 2018 iteration of the block:

- 1- **reducing scheduled contact time by 40 hours, providing students with more time for individual study, tutoring sessions, or review in cadaver lab;**
- 2- **adopting, with minor modifications, the learning objectives outlined by the Anatomical Society’s core syllabus¹ for regional anatomy, which are all clinically oriented;**
- 3- **restructuring dissection and didactic sessions to better align with the school’s longitudinal physical exam and radiology curriculums;**
- 4- **implementing flipped classrooms in most content areas;**
- 5- **building weekly cumulative review sessions; and**
- 6- **designing entirely new unit exams that consisted in 80 MCQs each, as well as the newly implemented final cumulative exam. At least three fourths of the questions in each exam were in a clinical vignette format (half were 1-step questions and half were 2-step questions) with a small number of simple recollection questions.**

“I am incredibly thankful and I feel very lucky that the anatomy block I just completed was new and improved. This curriculum completely exceeded any of my expectations. First, the lectures were for the most part helpful and very relevant. Second, the emphasis placed

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on clinical correlates really helped me make connections about how and why this information is going to be important in my future as a physician. Third, at no time did I feel like I was learning a bunch of information that would someday be irrelevant or unnecessary for medicine—the thought that the block directors put into creating this curriculum was immensely evident”

—Anonymous Medical Student Class of 2022 CUSOM, extracted from course evaluations

The block’s curricular change was perceived as a success. Above is a quote from one of our students extracted from the course’s evaluation. In 2018, grades were the highest since 2010, with a mean of 88/100 and no students failing the course. The 2018’s course evaluation by students was also extremely positive, with over 95% (89% for

2017) of students thinking that the exam and quizzes questions were clearly written, and 93% (80% for 2017) thought they were well related to learning objectives and material taught. Also, 90% (79% for 2017) of students expressed that clinical examples were sufficient to illustrate the clinical relevance of the basic science material; and 95% (86% for 2017) of students felt that overall block was well organized.

Anatomical knowledge supports the masterful examination of patients, formation of exam or imaging-assisted diagnosis, communication of these findings to the patient and other medical professionals, and is the foundation for safely performing and troubleshooting surgical and bedside procedures; making it relevant to our day-to-day clinical practice regardless of our specialty. Most importantly, I will argue that clinicians make great anatomy and basic

science teachers, as they possess the tools necessary to provide the clinical context, application and relevance of the material being taught; making learning, rather than memorizing, plausible. Correspondingly, as medical schools explore transition from cadaver lab and dissection in lieu of more integrated and applied teaching modalities, and the incorporation of POCUS to our daily clinical practice, I can easily imagine the future of anatomical teaching to occur at the bedside by the hand of trained clinicians.

References

1. Smith CF, Finn GM, Stewart J, et al. The Anatomical Society core regional anatomy syllabus for undergraduate medicine. *J Anat.* 2016 Jan;228(1):15-23. doi: 10.1111/joa.12405. Epub 2015 Nov 27.

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response and a variety of practices represented. Limitations include recall bias and use of a novel HVC scale without prior validation.

Continuing Medical Education:

McDonald FS, Duhigg LM, Arnold GK, et al. The American Board of Internal Medicine and Maintenance of Certification Examination and State Medical Board Disciplinary Actions: A Population Cohort Study. *JGIM* 2018; 33(8): 1292-1297.

Article Focus: This historical cohort study compared the risk of state medical board disciplinary action over time in physicians passing the IM Maintenance of Certification exam (IM MOC) with those who did not pass the IM MOC within 10 years of their initial American Board of Internal Medicine (ABIM) certification. The initial cohort consisted of more than 45,000 Generalists who passed their ABIM IM certification exam between 1/1/90 and 12/31/03.

Key Messages: The risk for discipline among physicians who did not pass the IM MOC examination within the 10 year requirement window was more than double that of those who did pass the examination (adj HR 2.09; 95% CI, 1.83 to 2.39). Higher disciplinary rates were also observed in: males (adj HR 1.95; CI, 1.67 to 2.27), those living in the South vs Northeast (adj HR 1.78, CI, 1.49 to 2.14), required >1 vs. 1 exam attempt for IM certification (adj HR 1.35; CI, 1.14 to 1.60), and in those who were age >30 vs. <30 at cohort year (adj HR 1.27; CI, 1.08 to 1.50). Disciplinary actions did not vary by state CME requirements (adjusted HR 1.02; 95% CI, 0.94 to 1.16), but declined with increasing MOC examination scores (Kendall’s tau-b coefficient = - 0.98 for trend, p<0.001). Among disciplined physicians, actions were less severe among those passing the IM MOC examination within the 10-year requirement

window than among those who did not pass the examination.

Strengths and Limitations: Similar to associations related to initial ABIM IM certification findings, this study provides important potential quality of care and performance outcome information for patients and the healthcare profession regarding IM MOC. Independent of professionalism, it reveals a strong marker, with a demonstrated “dose-response” medical knowledge relationship (exam score), for physicians who are less likely to have disciplinary actions. While a strong design for examining prognosis of outcomes, a population-based observational cohort design such as this can neither establish causality, nor account for factors not examined in the model. Finally, only examined general internists were studied and therefore results may not be applicable to subspecialty physicians.

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NEPHROTIC SYNDROME AS AN UNDERRECOGNIZED RISK FACTOR FOR CORONARY ARTERY DISEASE (CAD)

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A 47-year-old woman with insulin-dependent type 2 diabetes, hypertension, and active tobacco use presented with an inferior ST-elevation myocardial infarction (STEMI) complicated by complete heart block (CHB) and hypotension progressing to cardiogenic shock. She received appropriate medical management in the field per advanced cardiac life support guidelines, was urgently started on a dopamine infusion and subsequently required transcutaneous pacing before being intubated.

An acute ST-elevation myocardial infarction (STEMI) is an event in which transmural myocardial ischemia results in myocardial injury or necrosis, leading to ST-segment elevation on electrocardiogram of at least 1 mm in two consecutive extremity leads or at least 2 mm in two consecutive precordial leads. Our patient developed an unstable bradyarrhythmia as a result of her infarction and rapidly progressed to profound cardiogenic shock requiring vasopressor agents and pacing to maintain hemodynamics. Her prolonged hypotension markedly raises concern for her risk of developing significant end organ damage. This inferior STEMI will naturally require urgent revascularization based on STEMI treatment protocols.

Her coronary angiogram revealed severe three-vessel coronary artery disease (CAD), including a fully occluded proximal right coronary artery (RCA) consistent with the culprit lesion for her inferior STEMI and resultant CHB. She underwent successful percutaneous coronary intervention with the placement of one drug-eluting stent, and she rapidly returned to normal sinus rhythm following reperfusion. With normalization of her heart rhythm her blood pressure improved and she was titrated off the dopamine infusion. She was admitted to the intensive care unit and rapidly extubated.

Complications of myocardial infarction (MI) are common, and include cardiogenic shock, arrhythmias, congestive heart failure, and pericarditis. Delayed cardiac mechanical complications include ventricular free wall rupture, interventricular septum rupture, and acute mitral regurgitation. Non-cardiac complications include acute kidney injury, which is common after MI

and is well known to be associated with both short and long-term elevated mortality.¹ Along with her underlying comorbid conditions, and also considering the contrast agent load from her catheterization, our patient's risk of post-STEMI kidney injury is significant.

Her subsequent TTE was notable for acute systolic heart failure; her left ventricular ejection fraction was 40-45% with accompanying akinetic inferior and inferolateral cardiac walls, consistent with her complete RCA occlusion. Her hospital course was further complicated by acute kidney injury with azotemia. Her creatinine on arrival was 2.87 mg/dL (Baseline 0.8 mg/dL), which remained persistently elevated post reperfusion, peaking at 3.62 mg/dL. Her urinalysis was notable for large blood and >500 mg/dL of protein. Urine microscopy showed one muddy brown cast. She continued to produce appropriate urine in the hospital and had no dialysis indications.

In the clinical context of a late presenting STEMI complicated by cardiogenic shock, this kidney injury was consistent with acute tubular necrosis (ATN). ATN is a syndrome of intrinsic acute renal injury that is secondary to ischemic or toxic insults and is a common cause of acute renal failure in hospitalized patients. Decreased blood supply results in necrosis of tubules leading to renal injury. Brown, granular casts seen in the urine of our patient supported this diagnosis. There was a possible contributing concurrent element of contrast-induced nephropathy from her PCI that was difficult to precisely tease out from her underlying ATN.

In reviewing prior urine studies done as part of her outpatient diabetes care several years preceding her STEMI, we discovered a trend of significant proteinuria, which had not been added to her problem list. Old urinalyses were notable for nephrotic range proteinuria approximating 8 grams of protein in her urine daily, far exceeding the criteria for nephrotic syndrome (NS). Her albumin had been concurrently low (<2.5 g/dL) and she also had significant dyslipidemia; her most recent lipid panel was notable for total cholesterol of 258 mg/dL and LDL of 153 mg/dL. This progressively worsening

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dyslipidemia correlated with the progression of her proteinuria over time.

Nephrotic syndrome consists of peripheral edema, heavy proteinuria, and hypoalbuminemia, often with hyperlipidemia. The syndrome can be due to intrinsic renal disease, (e.g., membranous nephropathy, focal segmental glomerulosclerosis) or secondary to an underlying medical condition (e.g. type 2 diabetes mellitus, systemic lupus erythematosus). Management of NS is limited by a lack of clear guidelines, with treatment often consisting of sodium restriction, fluid restriction, and diuretics. The role for renal biopsy in diagnosing nephrotic syndrome remains unclear.



“The question arose as to why this relatively young and thin female (BMI 24) developed such profound ischemic heart disease. While she had several obvious risk factors for CAD including diabetes mellitus and active tobacco use, the severity of her three vessel disease culminating in a life threatening STEMI raised the question of whether her persistently undiagnosed nephrotic syndrome could have been contributing to her extensive heart disease.”

The most likely etiology of her NS was thought to be her longstanding poorly controlled diabetes. Her hemoglobin A1C had been above 11% for many years. Complement studies were within normal limits, both her serum and urine protein electrophoresis were unremarkable, and an infectious work-up including HIV, hepatitis B, and hepatitis C was negative. The case for diabetic nephropathy was thought to be strong and renal biopsy was deferred.

The question arose as to why this relatively young and thin female (BMI 24) developed such profound ischemic heart disease. While she had several obvious risk factors for

CAD including diabetes mellitus and active tobacco use, the severity of her three vessel disease culminating in a life threatening STEMI raised the question of whether her persistently undiagnosed nephrotic syndrome could have been contributing to her extensive heart disease.

Patients with NS have long been assumed to be at increased risk for atherosclerosis and heart disease because of NS-associated hyperlipidemia and hypertension, as well as the intermittent use of steroids in therapy. One retrospective chart review with age matched controls demonstrated that patients with NS were at increased risk of CAD, however this research excluded diabetics, making it less relevant to our patient.² A post-mortem pathologic analysis of the coronary arteries in 20 patients with nephrotic syndrome showed significantly more coronary luminal narrowing by atherosclerotic plaques compared to controls.³ Primarily in the pediatric domain, several case reports have been published of children with premature coronary atherosclerosis thought to be secondary to underlying nephrotic syndrome.^{4,5} Thrombosis represents another possible etiology for CAD among patients with NS, as a result of the hypercoagulable state stemming from imbalances in the coagulation cascade, the loss of antithrombin III in the urine, and an overall milieu of increased platelet activation and aggregation.⁶ While no official guideline recommendation exists, many providers treat the subsequent dyslipidemia in nephrotic syndrome with lipid lowering medications to reduce the risk of coronary disease.⁴

During her hospitalization our patient was initiated on a guideline-directed medical therapy package for coronary artery disease and heart failure including dual-antiplatelet therapy (aspirin and clopidogrel), a beta-blocker (carvedilol), a high intensity statin (atorvastatin), and isosorbide dinitrate. An inhibitor of the renin-angioten-

sin-aldosterone system was not initiated due to her poor renal function, which failed to return to her baseline. She was instructed to follow a sodium and fluid restricted diet, and was discharged in stable condition with persistent kidney injury, with plan for outpatient follow up.

This case highlights the importance of reconciling patients' known comorbid conditions but also remaining curious to unexpected diseases or unexpected severity of presentations.

References

1. Parikh CR, Coca S, Wang Y, et al. Long-term prognosis of acute kidney injury after acute myocardial infarction. *Arch Intern Med.* 2008 May 12;168(9):987-95. doi: 10.1001/archinte.168.9.987.
2. Ordoñez JD, Hiatt RA, Killebrew EJ, et al. The increased risk of coronary heart disease associated with nephrotic syndrome. *Kidney Int.* 1993 Sep;44(3):638-42.
3. Curry RC Jr, Roberts WC. Status of the coronary arteries in the nephrotic syndrome: Analysis of 20 necropsy patients aged 15 to 35 years to determine if coronary atherosclerosis is accelerated. *Amer J Med* 1977 Aug;63(2):183-92.
4. Kallen RJ, Brynes RK, Aronson AJ, et al. Premature coronary atherosclerosis in a 5-year-old with corticosteroid-refractory nephrotic syndrome. *Am J Dis Child.* 1977;131:976-80.
5. Hopp L, Gilboa N, Kurland G, et al. Acute myocardial infarction in a young boy with nephrotic syndrome: a case report and review of the literature. *Pediatr Nephrol.* 1994;8:290-4.
6. Karabay CY, Kocabay G, Kalayci A. Acute inferior myocardial infarction with nephrotic syndrome. *Am J Emer Med.* 2012 Jan;30(1):260.e1-3. doi: 10.1016/j.ajem.2010.11.004. Epub 2010 Dec 14.

CLINICAL TEACHING CHAMPIONS—AN INNOVATIVE APPROACH TO ENHANCING CLINICAL EDUCATION AND THE CAREERS OF CLINICIAN EDUCATORS

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There is a pervasive myth about attending physicians that because we can “do,” we can “teach.” We tend to believe that somehow our white coats and our attending badges imbue us with the skills needed to effectively educate the next generation of learners. But even a little reflection reveals that this myth is not true. Residents usually receive minimal instruction on interacting with learners and typically enter the workforce without formal preparation for teaching. Practicing physicians are not routinely nurtured as educators. Continuing medical education ensures we maintain our medical knowledge, but academic clinicians often lack ongoing structured assessment and support of teaching skills. Learner evaluations and feedback may be the only guidance we have about whether our teaching practice is effective—but this usually comes well after the encounter and might be neither specific nor formative. As attendings, we may never receive the observation or coaching that is necessary to improve our teaching.

To address this gap, in 2016 we created the Clinical Teaching Champion (CTC) initiative as a component of the Faculty Development Program (FDP) at the University of Washington, Division of General Internal Medicine. The premise of the program is that our faculty desire to improve their teaching, and low-stakes, structured peer feedback can help achieve that goal. We have a widespread division, with three main clinical sites: the University of Washington Medical Center, Harborview Medical Center, and the Veterans Administration Hospital. After a competitive application process, one inpatient and one outpatient CTC for each of these sites was selected from amongst faculty with educational expertise and experience to provide structured observation and coaching for faculty. CTCs, already acknowledged to be skilled educators, underwent a one-hour orientation with the FDP director (author SM) to ensure a shared mindset in providing structured, constructive feedback on teaching. CTCs then began to regularly observe peers in teaching situations and provide both reinforcing and

formative feedback. The feedback is usually organized by the Stanford Faculty Development Program framework for effective teaching,¹ but CTCs are free to adapt their feedback methods as felt to be appropriate. CTCs received a small honorarium to demonstrate the importance of the project and strong support of the Division for the effort; however, “protected time” was not provided for the role.

Given my background as a Teaching Scholars Program graduate and core residency faculty at a prior institution (author AMM), I was delighted to be selected to put my skills to use as a Clinical Teaching Champion. I knew from experience that peer observation can open up rich conversations about preferences, styles, and skills, and that the observer often learns just as much in the process as the person being observed.

Due to the ever-changing schedule of attending teaching on ward teams, I concentrated on observing my hospitalist colleagues in formal presentations—noon conference, journal club, works-in-progress conferences, and other pre-scheduled talks. When feasible, I met with the presenter prior to their talk to review their goals and discuss the principles of effective teaching. After each presentation, the speaker and I debriefed in person if possible, or by email if needed. I provided specific behavior-based observations of their strengths and noted concrete, actionable areas for improvement. Some of my recommendations came from reflecting on my own lessons from having been observed by another CTC.

The response from my colleagues has been uniformly positive. Teaching involves vulnerability, putting yourself “out there” in front of your audience of learners. Having a safe, supportive environment in which to express doubts, fears, and inadequacies and to brainstorm ways to strengthen skills has been much appreciated by my colleagues. Together, observees and I have improved their presentations in terms of confidence, organization, and delivery. My presentation skills have likewise improved with this program, because each time I provide

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feedback on opportunities to improve, I bring that awareness to my own work.

One of the unexpected benefits of being designated a CTC has been the increase in my informal peer mentorship. The CTC title indicates to colleagues that I have a special interest in education and advising which has led to many conversations about teaching outside of direct observation encounters. New faculty in particular have benefitted from having a designated point person for helping them navigate their new role, but senior faculty have also appreciated the opportunity to review effective teaching practices. I have prepared attendings for their first ward months, discussed the balance between supervision and autonomy, and counseled both new and experienced attendings facing challenging interactions with learners. My colleagues know I am always open to talking about medical education, and I love when they peek in to my office to ask “Do you have a minute...?”

This program has been a low-cost intervention which has boosted awareness of effective teaching and

fostered an environment of peer observation, feedback, and support. There were several key aspects for successful implementation. Each CTC received individual orientation from the program director so that we were clear on the concept and the message. Consistency was provided by having a foundational framework for the observations. The program was promoted to the participants as an opportunity for us to learn from each other, making it clear this was confidential and formative—not critical or punitive. To provide an initial incentive for participation, the first five people to request observation received a \$10 Amazon gift card. This got the ball rolling, and then word of mouth helped maintain interest.

We have done some preliminary work to evaluate the program, and found that participants have highly valued the experience and would recommend it to their colleagues. In a survey, most participants highly rated the experience in terms of accuracy of the CTC’s observations, comfort with the observation and feedback process, and worthwhileness of the program.

The CTC program has enhanced my experience as medical educator, and raised my profile as an experienced teacher willing to learn from colleagues as well as provide mentorship. The program has also helped support a shared mental model around optimal teaching and is fostering an environment in which clinical teaching is supported and valued. My next step will be to extend this work from pre-planned talks to spending more time with ward attendings, providing feedback regarding “on-the fly” teaching and team supervision.

We would like to acknowledge the other CTCs in our group who have lent their support and expertise to the program and this essay: Tyler Albert, MD; Douglas B. Berger, MD; Tyra L. Fainstad, MD; Molly Blakely Jackson, MD, Dawn Taniguchi, MD; and Jill M. Watanabe, MD.

References

1. Skeff KM. Enhancing teaching effectiveness and vitality in the ambulatory setting. *J Gen Intern Med.* 1988;3(2 Suppl):S26-33.

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PRESIDENT’S COLUMN

 (continued from page 3)

work is not easy and there have been tensions about how to foster innovation and opportunity for members to bring forward new ideas—letting a thousand flowers bloom model—with a need to focus. Part of the process was to define the following broad long-term goals that would shape the work of the organization, guide Council and SGIM staff, and support work plan development by our Committees and Commissions:

1. **Promote scholarship in person-centered and population-oriented approaches to improving health.**
2. **Foster the development of general internal medicine leaders in academic and other settings.**
3. **Ensure organizational health, including a thriving staff.**

4. **Advocate for our vision of a just health system that brings optimal health for all people.**

Amongst the other work of the winter retreat, Council took the next step in this strategic work for SGIM and approved an enterprise wide dashboard of metrics and associated targets that will allow us to clearly set our course and have clarity about organizational success. The metrics and associated targets for the inaugural SGIM Enterprise Dashboard (see table). We developed them to guide Council and staff to allocate and balance our human, fiscal and other resources to achieve benefits to SGIM and to those we serve. We will spend the remainder of the 2019-20 year working to complete those met-

rics and targets that are in progress so that we will start 2020-21 as our first full year of implementation.

A few caveats about these metrics. First, the Council recognizes that these inaugural set of metrics are process-oriented and expects to progress them overtime to more outcomes-based metrics as the effort matures. We will evolve to outcome oriented as we get better at data collection and at agreeing on what the outcomes will look like. Second, this is a small set of metrics by design. There is a lot we could choose to track, but we want to begin (and perhaps stay long-term) with a parsimonious starter set for Council to review at regular intervals to track progress on our goals and

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towards our vision. This narrow set of metrics at the enterprise level does not mean that some verticals won’t have more detailed metrics that track their work. For example, the Finance Committee will still track meeting goals around maintaining 6 months of reserves.

Third, the metrics aren’t completely identified. One of them is the assessment of the impact of the career development programs. Members will recall that amongst many new additions to the SGIM staff is Dawn Haglund, in a newly formed role of Director of Education.

Dawn joined us just a few weeks ago and will, in partnership with the career development program leaders, recommend a starter metric. We also are in development for a metric to track the workplace environment at SGIM. These areas are of high

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Society of General Internal Medicine Inaugural Dashboard

Broad Long-term Organizational Goals	Current Actions to Drive Goals	Domain(s) to Measure within Goals	Enterprise Wide Performance Measures
1. Promote scholarship in person-centered and population-oriented approaches to improving health.	Strengthen and leverage the infrastructure for catalyzing and disseminating evidence-based innovations in clinical practice, education, research, and advocacy.	Increase member capacity for innovation.	Rating of the extent to which the SGIM Annual meeting helps to catalyze and disseminate innovation. <i>Target: More than 90% of meeting attendees agree or strongly agree. Baseline: 88%</i> Rating of the extent to which the SGIM Regional meetings help to catalyze and disseminate innovation. <i>Target: More than 90% of meeting attendees agree or strongly agree. Baseline: 87%</i>
2. Foster the development of general internal medicine leaders in academic and other settings.	Develop an integrated, comprehensive portfolio of career development initiatives.	Offer quality career development opportunities.	Proportion of career development program enrollees who annually rate their program as “excellent” in achieving its goals. <i>Target: At least 75% for each program on annual evaluation. Baseline: In progress</i>
3. Ensure organizational health including a thriving staff.	Align organizational priorities and activities to make effective use of resources, ensure financial health and foster growth.	Continue to strengthen financial health.	Growth of revenue from membership. <i>Target: 2% annually in the first year and 3% annually in subsequent years. Baseline: 1.5%</i>
	Align organizational structure and workload to ensure a high-functioning, collaborative work environment, and a thriving, fulfilled staff	Recruit and retain members.	Annual retention rate for members. <i>Target: 80% annual full member retention rate Baseline: 73%</i> <i>Target: 40% annual associate member retention rate Baseline: 35%</i>
4. Advocate for our vision of a just health system that brings optimal health for all people.	Conduct advocacy for achieving optimal health of all people, with an emphasis on vulnerable and underserved patients and the role of general internists	Membership level engagement in health advocacy.	Average percentage of members who open the Health Policy newsletter email. <i>Target: 35% Baseline: 26%</i>

orating on an abdominal exam, are reproducible through telemedicine encounters. Furthermore, a virtual care delivery model would create more frequent touchpoints across all aspects of these patients' care plans.

“Virtual visits eliminate the provider-patient relationship.”

— Defined as providing clinical care to patients from a distance, telemedicine is often perceived to remove the humanistic element of healthcare delivery. Specifically, providers fear that the introduction of technology to medicine makes it impersonal as it values disruptive innovation over quality and trust. However, much of medicine today is already conducted using technology, such as phone calls, e-mails, and in-app messaging. In addition to these examples of digitalization, video visits and eConsults can actually strengthen the provider-patient relationship. Video visits create an opportunity for providers to gain a better insight into their patients' lives as they can demonstrate how they self-manage their conditions at home. Specifically, providers can see first-hand what type of food is stored in their fridges, how many pills are left in their pill bottles, and how their medications are stored and organized. As primary care providers review eConsults with specialty consultants, they are better able to explain to their patients the rationale behind their treatment plan, putting more of the conversation in the hands of the primary care team.

“My patients don't want video visits.”

— Throughout a number of industries, technology has created system efficiencies and heightened consumerism. Companies, such as Netflix and Hulu, introduced a streamlined and convenient way for consumers to watch television shows and movies. In many industries, including health care, change is being driven by people's desire for such speed, efficiency, and convenience. The *American Well's 2019 Consumer Survey* indicated that

66% of Americans would adopt telemedicine into their healthcare, and multiple other surveys demonstrated similar results.³ Data shows that patients of every age are expressing an increasing interest in utilizing technology to bypass the waiting room and access convenient healthcare services from the comfort of their own home. In fact, limited data exist that state patients are amenable to video visits in certain circumstances.⁴

“Both video visits and eConsults disrupt the traditional workflow.”

— Video visits and eConsults are seen as adding to a provider's overall workload but should not be. In many cases, they can replace existing work in a more meaningful and often compensable way. Providers can use telemedicine as a means to triage clinical cases to appropriate sites of care. Visits, such as follow-ups of chronic illnesses, can occur during a patient-care session. After-hours telephone care for urgent illness can be transformed into a video visit to help with breathing and rash assessments or to help assess how urgently sick is a patient. Meanwhile, follow-ups requiring physical exams or provider-obtained lab specimens, like pharyngeal swabs in the office, could remain as in-person encounters. In fact, while doing so, providers can simultaneously engage with their patient and chart the visit without compromising the quality of care delivered. Thus, workflows can be enhanced both clinically and operationally when telemedicine is introduced.

“Telemedicine increases the rate of medical errors and my risk for liability.”

— One of the most feared misconceptions regarding the use of telemedicine is that it creates a higher risk for medical errors and provider liability. Without the traditional face-to-face medical assessment, providers believe there is an opportunity to miss clinical information, thus, leading to a suboptimal diagnosis and treatment plan for their patients. However, providers are

already engaging in activities that have the potential to result in such negative outcomes. For instance, the earliest available appointment a patient can make with a specialty provider may be a month or longer away and a patient's care might get delayed. Providers attempt to address these access issues by conducting “curbside” consults. In one study of curbside consults, specialists often felt that curbside consultations left off important clinical information.⁵ Perhaps creating a more structured electronic system can enhance the exchange of data.

“My practice will not compensate me for telemedicine encounters.”

— An increasing number of insurance companies compensate video visits at the same rate as office visits and categorize eConsults as covered expenses. However, there is an opportunity for Medicare to expand telemedicine coverage as reimbursement is only provided when this type of care is delivered to patients in rural areas. Some institutions also recognize that providers should be directly compensated for telemedicine encounters through corresponding RVU credit. In systems aimed at reducing the total cost of care, telemedicine has been used to reduce unnecessary emergency room and specialty care utilization. These cost savings are then passed along to the patient's primary care provider.

“The majority of my patients are on Medicaid and adopting telemedicine will create two-tiered care.”

— It is not clear that incorporating technology into healthcare further segments lower income patient populations. According to the 2018 Deloitte Survey of US Health Care Consumers, “adult Medicaid beneficiaries own smartphones (86 percent) and tablets (69 percent) at the same rates as the general adult US population (86 percent and 72 percent, respectively).”⁶ These data suggest that access to technology may not

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PERSPECTIVE (continued from page 15)

be a problem for this patient population, although access to broadband internet at reasonable prices may be. In reality, uninsured patients or those on Medicaid may benefit disproportionately by avoiding the costly difficulties associated with attending medical appointments, such as taking time off of work and securing child care.

We need only look at the history of medicine to see the reluctance of providers to embrace technological innovations. Given the benefits to patients of telemedicine, we must demystify clinicians' concerns to shift the curve to earlier adoption of this important technology—one Grand Rounds auditorium at a time.

References

1. Levine DM, Dixon RF, Linder JA. Association of structured virtual visits for hypertension follow-up in primary care

with blood pressure control and use of clinical services. *J Gen Intern Med*. <https://link.springer.com/article/10.1007%2Fs11606-018-4375-0>. Published April 23, 2018. Accessed January 15, 2020.

2. Kew KM, Cates CJ. Remote versus face-to-face check-ups for asthma. *Cochrane Database Systematic Rvws* 2016. <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD011715.pub2/abstract>. Issue 4. Art. No.: CF011715. DOI: 10.1002/14651858.CF011715.pub2. Accessed January 15, 2020.

3. American Well. Telehealth index: 2019 consumer survey. <https://static.americanwell.com/app/uploads/2019/07/American-Well-Telehealth-Index-2019-Consumer-Survey-eBook2.pdf>. Accessed January 15, 2020.

4. Powell RE, Henstenburg JM, Cooper G, et al. Patient perceptions of telehealth primary care video visits. *Ann Fam Med*. 2017 May; 15(3): 225–229. doi:10.1370/afm.2095.

5. Kuo D, Gifford DR, Stein MD. Curbside consultation practices and attitudes among primary care providers and medical subspecialists. *JAMA*. 1998;280(10):905–909. doi:<https://doi.org/10.1001/jama.280.10.905>.

6. Majerol M, Carroll C. Medicaid and digital health: Findings from the Deloitte 2018 Survey of US Health Care Consumers. *Deloitte Insights*. <https://www2.deloitte.com/us/en/insights/industry/public-sector/mobile-health-care-app-features-for-patients.html>. Published September 7, 2018. Accessed January 15, 2020.

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importance to the Council and the organization overall so even though we may not have baseline measures until 2020-21, we wanted to leave these placeholders to signal to everyone involved that we need to fill in these gaps by the end of May 2020.

I have no doubt that this will be a learning journey for us as we work to ensure that the metrics are truly guiding the work of the Council, staff and other leadership. One thing I am certain about is that we will

need to continue to iterate this work over the next few years as we evolve and as the external environment evolves. Nonetheless, I am genuinely excited that we have taken this next step and set the course for a stronger SGIM and our ability to drive towards a just system of care.

References

1. Corbie-Smith G and Bass E. A sabbatical year for organizational rejuvenation. *SGIM Forum*.

<https://www.sgim.org/File%20Library/SGIM/About%20Us/Vision%20and%20Values/SGIM-Sep2018-President-s-Column-1.pdf>. Published September 2018. Accessed January 15, 2020.

2. SGIM. About us: Vision and values. <https://www.sgim.org/about-us/vision—values#>. Accessed January 15, 2020.

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