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MEDICAL EDUCATION: PART I

THE NEW WORLD OF OUTPATIENT CHARTING: A THREAT OR AN OPPORTUNITY FOR PATIENTS AND CLINICIANS?

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R elaxation of documentation requirements can be transformative for the busy clinician, inundated by electronic communications within the patient portal, prior authorizations, forms completion, and medication refills—piled on top of the increasing show rates that have occurred with increased telehealth usage. But there is yet another, arguably more important, reason why changes to documentation requirements may prove beneficial: they allow us to document at the level of the patient, who now has same-day access to our clinical thinking and medical decision-making via our notes.

The new documentation requirements from the Centers for Medicare and Medicaid Services for office visits offer internists an extraordinary opportunity to address the form and content of our notes. With the elimination of all stipulations for specific historical elements, Medicare allows us to set a new direction for communication and documentation within health care. At the same time, the 21st Century Cures Act and the OpenNotes movement (opennotes.org) present us with a unique opportunity to organize medical documentation in patient-centered ways, with renewed focus on empowering patients with access to their own health care.

Are patients, caregivers, and physicians interested? YES! A large-scale survey of patients using OpenNotes across multiple institutions revealed patients think note reading is important for their health.¹ Another study of clinicians across three large healthcare systems revealed that 74% viewed note sharing as a positive and valuable way to engage and empower patients in their own medical care.²

Here, we aim to highlight new methods of documentation that (1) uncouple "quantity of information" from the complexity of medical decision-making, resulting in more focused, relevant notes and (2) offer commentary in ways that meet patients' perceptions, expectations, and understanding of their medical illness(es) through open notes.

Framing Documentation around Medical Complexity

The outpatient evaluation and management codes (E/M) for new patients (99202-5) and established patients (99212-5) have been redefined. Service code selection can be made on either the time spent in care or the complexity of medical decision-making (MDM). In addition, time-based codes now include total time spent on patient care on the day of service, including same-day pre-visit review, face-to-face time, visit note preparation and completion, and any other communication related to a patient seen that day. When billing by complexity, now unencumbered by the inclusion of history and physical elements, how do you design the best note to meet medical complexity?

Begin with Problem-Oriented Charting. This includes diagnoses, undifferentiated complaints, findings, and test results. It may be best to reframe "problems" as continued on page 14

CONTENTS

1.	Medical Education: Part I	1
2.	From the Editor	2
3.	President's Column	3
4.	From the Society	4
5.	Book Review	5
6.	Medical Education: Part II	6
7.	Best Practices	8
8.	Health Policy Corner	10
9.	Breadth	

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FROM THE EDITOR

START YOUR ENGINES!

Tiffany I. Leung, MD, MPH, FACP, FAMIA, Editor in Chief, SGIM Forum

In U.S. academic medicine, July is a vital time of transition, marked by caution and excitement, according to Monica Lypson, SGIM President. She reminds us that the so-called July Effect does not lead to poorer patient outcomes or errors. In fact, it is a time of renewal, restarting a cycle notable for learning, activation, and empowerment for individuals and academic medical centers engaged in training new physicians and developing established faculty physicians.

With the summer transition in mind, SGIM Forum warmly welcomes two inaugural associate member Associate Editors! Dr. Shivani Jani is a Patient Safety and Quality Improvement Fellow at the James A. Haley Veterans' Hospital in Tampa, Florida. In this issue, Jani writes about *Reflejos*, an arts and humanities online publication, for which she served as editor. Dr. Eric Kutner is a third-year Internal Medicine-Primary Care resident at NYU Langone Health. He previously wrote for SGIM Forum in February 2021 about the importance of COVID-19 test counselors.¹ As Jani and Kutscher join the team, SGIM Forum reinforces its commitment to represent and amplify the diverse voices of Society membership, especially those of our trainees.

This mid-summer issue of SGIM Forum offers an educational potpourri. Eric Bass, SGIM CEO, and Rita Lee, chair of the 2021 Annual Meeting Program Committee, reflect on a successful virtual annual meeting. Mulligan, et al, summarizes the advantages and disadvantages of block grants, discussed at a LEAHP scholars journal club. Schmidt, et al, offer documentation tips to meet both patient needs and new CMS documentation requirements. Buell, et al, explains assessment of residents' interest in performing procedures and implications for educational curricular planning. Le, et al, share high-yield insights on POCUS usage in evaluating patients with COVID-19. Finally, Levine recommends Closing the Gender Pay Gap in Medicine, a timely book that features contributions from members of the SGIM Women and Medicine Commission. Maybe the July Effect is just us revving our (learning) engines!

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THE JULY EFFECT AND SGIM'S LIFECYCLE OF RENEWAL

Monica L. Lypson, MD, MHPE, FACP, President, SGIM

Every July, we approach this time of year with excitement and caution. The excitement comes from welcoming new faculty, fellows, residents and interns; the caution from the varied abilities of new faculty, residents, fellows, and interns and our lack of appreciation of their skills sets. They enter our programs, centers, and settings with energy and optimism and are thrilled by the opportunity to engage in efforts to achieve "optimal health" for everyone, as stated in SGIM's vision. But is there a real July effect?



E very July, we approach this time of year with excitement and caution. Why excitement and caution? The excitement is because we welcome new faculty, fellows, residents, and interns; the caution is due to the varied abilities of new faculty, residents, fellows, and interns and our lack of appreciation of their

skills sets. They enter our programs, centers, and settings with energy and optimism and are thrilled by the opportunity to engage in efforts to achieve "optimal health" for everyone, as stated in SGIM's vision.

But is there a real July Effect? The July Effect is the perception that there are more medical errors in July due to the introduction and turnover of trainees in the American healthcare system. A 2021 meta-analysis by Zogg, et al, might have put this age old question to rest.¹

They found that despite the vast number of studies on the topic, the majority (~80%) show no July Effect in the inpatient clinical setting. Despite data that suggests no difference in inpatient care during the month of July, many of us academic internists *know* and *feel* something different as June quickly transitions into July.

Some of our own members have highlighted the issues in patient care that often happens in our resident clinics with this annual shift, or the every three-year turn over.² Essien, et al, noted the interplay of the educational learning environment and its ability or inability to achieve optimal health outcomes.³ Our members continue with their scholarly efforts on debating the orthogonal questions that might lead to interventions to ensure a "just system of care in which all people can achieve optimal health." I am left with asking is the July Effect an *continued on page* 13

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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.

Q & A WITH SGIM'S CEO ABOUT LESSONS LEARNED FROM SGIM'S 2021 ANNUAL MEETING

Eric B. Bass, MD, MPH; Rita Lee, MD

Dr. Bass (basse@sgim.org) is the CEO of SGIM. Dr. Lee (rita.lee@cuanschutz.edu) was the Chair of the 2021 Annual Meeting Program Committee.

What did the Program Committee see as the biggest challenges in planning a virtual Annual Meeting?

Then the Program Committee was formed in May 2020, we were in the early throes of the COVID-19 pandemic. SGIM had just cancelled the in-person meeting that was scheduled to be held in Birmingham, Alabama, and the 2020 Program Committee was scrambling to convert at least a portion of the planned content into a virtual meeting. When it became apparent that the pandemic was going to last long enough to jeopardize the 2021 Annual Meeting scheduled for Boston, the SGIM Council asked the Program Committee to plan for a fully virtual meeting. That decision created challenging questions for the Program Committee. What types and how much of the usual meeting content could be delivered virtually? How could we offer opportunities for SGIM member engagement and human connection virtually? How would Program Committee members and staff juggle meeting preparations with extra responsibilities and stressors imposed by the pandemic?

What were the most successful aspects of the 2021 Annual Meeting?

The Program Committee and staff worked together extremely well to meet the enormous challenges they faced in uncharted territory. We applied lessons learned from the SGIM regional meetings. The team ultimately decided to include all of the usual types of Annual Meeting content in the 2021 meeting—plenary lectures by guest speakers and special symposia on timely topics related to the theme of Transforming Values into Action, special lectures by distinguished professors, oral abstract presentations, poster presentations, interactive workshops, mentoring panels, interest group meetings, and updates in clinical medicine, education, and research, as well as a new Clinical Update Jeopardy game featuring regional teams.¹ Perhaps the greatest success was delivering all of this content in the four-day period that ran from April 20-23. Despite concerns about people being Zoomed out, 2,271 people participated in the meeting, a number comparable to registration rates in many previous years. Moreover, as we checked in on as many sessions as possible, we found a high level of engagement in nearly all sessions, from 10:00 AM to 7:15 PM EST. The most common complaint we heard was that people were not able to take advantage of all the content that was of interest to them. That concern is being addressed by making much of the meeting content available on our new learning management system, GIM Learn.²

How could the Annual Meeting be conducted more effectively in a virtual format?

The meeting team took notes throughout the meeting about problems that arose. Many of the challenges related to technical difficulties with accessing sessions on the Event Pilot platform. Thankfully, SGIM's superb staff had organized themselves to be available for all sessions so that most issues were addressed quickly. Some of the technical problems will require adjustments in how sessions are set up if we plan to use the platform again for future meetings. Although we observed a high level of engagement in the vast majority of sessions, we noted that many poster presenters did not receive comments or questions about their work, and there was some confusion about where to post discussion content. We need to explore new ways to ensure that all poster presenters have more dynamic opportunities to discuss their work with meeting participants.

What are the most important lessons learned from the Annual Meeting?

What impressed us most was the level of engagement and the dedication that members have for each other and for the organization. So many members submitted content, led interactive sessions, created posters (many with recorded mini-presentations), and actively participated in the meeting. We interpret that engagement as evidence of how much members value the diverse meeting content and the associated connection with and inspiration from their peers. The lectures by the guest speakers and *continued on page 13*

BOOK REVIEW: CLOSING THE GENDER GAP IN MEDICINE

Rachel Levine, MD, MPH

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How do you address a problem that is easily identified and quantified and yet remains stubbornly slow to improve despite genuine calls to do so? How do you unstuck an effort that is stuck?

Closing the Gender Gap in Medicine: A Roadmap for Healthcare Organizations and the Women Physicians Who Work for Them,¹ edited by Dr. Amy Gottlieb, answers these questions by moving beyond evidential descriptions of gender-based pay inequity in medicine to presenting a comprehensive road map of guidelines, policies, and actions to ensure that equal work results in equal pay. Although there is no quick fix to the gender pay gap, a path forward is foreseeable with deeper understanding of the problem, intentionality, commitment, and planning. Such a path is elegantly laid out in this book.

Gottlieb and co-authors appropriately acknowledge and lean into the tension at the core of this problem that we remain stuck in addressing the problem in a

meaningful and long-lasting way even though most in our field agree that equal pay for equal work is consistent with our professional and personal values and makes good sense from an

organizational and business perspective. Difficult problems require new ways of seeing. Threshold concepts do just that. They are commonly used in education and are likened to *portals* that can transform the way learners think about or understand an issue and help them to integrate seemingly dissimilar elements to gain a more comprehensive view. Threshold concepts are also troublesome, meaning they may appear counterintuitive or challenge one's prevailing views.²

Closing the Gender Gap in Medicine begins with a foundational threshold concept describing the drivers of the gender pay gap known as second-generation gender bias. Second-generation gender bias describes the complex interplay of implicit expectations and unconscious gender stereotypes with organizational culture and structures in a way that disproportionately and negatively impacts women in the workplace. Second-generation gender bias sheds light on and refutes existing assumptions that have been used to explain differences in pay by gender. When not viewed through the threshold concept of second-generation gender bias, one might accept differences in pay and attribute these to "choices" that women make about for example specialty, number of hours worked, or how they may or may not promote their own career advancement or leadership aspirations.

Chapter 2 covers the many areas where gender stereotypes and unconscious bias may, through formal and informal channels, influence the career trajectories of women and which impact pay including specialty choice, performance evaluations, clinical productivity measures, childbearing and domestic responsibilities, role congruity and fit, and differences in sponsorship. This chapter also references studies that refute common assumptions about the career and other "choices" women make which may

> impact pay. Gottlieb and co-authors are correct to start with this threshold concept as one cannot plan for meaningful change and avoid unintended consequences without under-

standing the pervasiveness and impact of second-generation gender bias. Readers will appreciate that this lens is carried through the remaining chapters.

Chapters 3 and 4 address common physician compensation models and the legal context and considerations related to salary equity. The discussion of compensation models demonstrates the structural ways in which women physicians are disadvantaged with regard to pay equity. For example, there are more women in part-time positions and less in procedurally based specialties due to the myriad reasons listed in Chapter Two. Additionally, the majority of compensation models in the United States combine base salary (typically the largest portion of salary) with an incentive plan; the authors describe how both salary components are subject to gender bias. Base salary determination rests on several factors which are influenced by gender bias, including expected renumeration (gender norms may lead women to expect a lower salary continued on page 15

WHO WANTS TO DO INTERNAL MEDICINE PROCEDURES? A CROSS-SECTIONAL SURVEY

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All authors are members of the Southern Bedside Procedure Consortium.

Introduction

Training in invasive bedside procedures has long been considered a cornerstone of Internal Medicine training. However, the number of procedures performed by internal medicine residents across the United States is declining and few Internists will regularly perform these procedures after training.¹ Upon graduation from residency, a significant proportion of residents feel anxious, lack proficiency, and seek additional training in their procedural skills.² The challenges and consequences of inadequate training during residency extend into early career faculty who are required to supervise residents performing the same procedures in which they lack procedural expertise.³

However, there is debate regarding the overall necessity of training all residents to achieve competence in all invasive bedside procedures. The American Board of Internal Medicine (ABIM) advocates that residents must have the opportunity, not a requirement, to develop competence in procedures that will further their development as fellows or independent practitioners.⁴ Identifying and describing the characteristics of internal medicine residents who are highly interested in performing procedures are important prerequisites in achieving ABIM guidelines to provide procedural opportunities for interested residents. In order to address this first step, we sought to describe the current self-reported interest level in procedural training and identify factors associated with high procedural interest among internal medicine residents at a single large tertiary academic medical center.

Methods

Internal medicine residents were invited to complete an anonymous online survey in July 2017 prior to the launch of a Medical Procedure Service (MPS) at Vanderbilt University Medical Center (VUMC), a large quaternary academic hospital in Nashville, Tennessee. In the survey, potential responses for initial interest level included: 1) Very interested 2) Interested 3) Somewhat interested 4) Not very interested or 5) Not interested at all. Residents categorized as having "high" procedural interest were defined as those who marked "very interested" on the survey questionnaire. All other responses were categorized as a "lower" group. Statistical analyses were performed using *SAS 9.4.* Statistical significance was assessed using an alpha level of 0.05. Descriptive statistics were reported to include frequencies and percentages for categorical variables. Continuous variables were reported as means with standard deviations (SD) or medians with interquartile ranges (IQR), depending upon variable central tendency. To examine differences between groups (high interest v. lower) for demographic or procedure-related variables, chi-square or *t*-tests were used. The non-parametric Fisher's Exact or Wilcoxon Rank Sum tests were used if the assumptions to the chi-square or t-tests were violated—VUMC Institutional Review Board deemed the study exempt.

Results

Of 155 residents, 92 (59.4%) completed the survey—the average age was 28.6 years, with nearly 40% first-year residents and 60% male residents, and sixty-six (72.5%) residents had high interest in performing procedures (*see table*). Residents with high interest performed more procedures under supervision than lower residents (p=0.03). Those interested in cardiology and pulmonology as intended subspecialties tended to have high interest in procedures. Age, gender, postgraduate year, and total number of procedures performed without supervision or observed procedures were not predictive of procedural interest.

Discussion

We sought to identify and describe the characteristics of internal medicine residents with high interest in medical procedures. Our survey suggests that most residents have high interest in procedural training. Performing more procedures under supervision was associated with a greater interest in procedures. Residents with high interest in procedures had career ambitions to work in subspecialties with a procedural focus. They also reported performing more procedures under supervision than lower residents. <u>continued on page 7</u>

Descriptive Statistics Overall, by Interest Level, and Results of Tests for Differences between Interest Levels								
	Level	Overall	Interest Level					
Variable			High	Low	p-value			
			N=66 (72.5%)	N=25 (27.5%)				
Age – mean (SD)		28.6 (1.9)	28.4 (1.6)	29.4 (2.4)	0.0627			
	1	36 (39.1)	29 (43.9)	7 (28.0)	0.1397†			
	2	20 (21.7)	11 (16.7)	9 (36.0)				
PGT - II (%)	3	34 (37.0)	25 (37.9)	9 (32.0)				
	4	2 (2.2)	1 (1.5)	1 (4.0)				
Conder n (%)	Female	36 (39.1)	22 (33.3)	13 (52.0)	0.1023			
Gender – II (%)	Male	56 (60.9)	44 (66.7)	12 (48.0)				
	Unknown	2 (2.2)	2 (3.0)	0 (0.0)	0.0012†			
	Cardiology	26 (29.3)	21 (31.8)	5 (20.0)				
	Gastrointestinal	10 (10.9)	8 (12.1)	2 (8.0)				
	General Internal Medicine	5 (5.4)	1 (1.5)	4 (16.0)				
Subspecialty Interest – n (%)	Hematology/Oncology	7 (7.6)	2 (3.0)	4 (16.0)				
	Hospital Medicine	7 (7.6)	6 (9.1)	1 (4.0)				
	Infectious Disease	3 (3.3)	1 (1.5)	2 (8.0)				
	Pulmonology	18 (19.6)	17 (25.8)	1 (4.0)				
	Rheumatology	2 (2.2)	0 (0.0)	2 (8.0)				
	Other/Undecided	12 (13.0)	8 (12.1)	4 (16.0)				
Procedures Observed - mean (SD) and Median (IQR)		8.0 (8.6) 5.0 (2.0-10.0)	8.8 (9.2) 7.4 (2.0-10.0)	6.1 (6.7) 5.0 (2.0-5.0)	0.1535†			
Procedures Performed under Supervision – mean (SD) and Median (IQR)		11.6 (8.0) 10.0 (7.0-15.0)	12.7 (8.5) 11.0 (7.0-15.0)	8.7 (5.6) 7.5 (4.5-13.0)	0.0327†			
Procedures Performed without Supervision – mean (SD) and Median (IQR)		8.6 (12.2) 4.0 (0.0-12.0)	9.5 (13.3) 5.0 (0.5-13.5)	6.4 (8.9) 3.0 (0.0-10.0)	0.2751†			
[†] Fisher's Exact or Wilcoxon Rank Sum Test								

The overall strength of the study includes the level of detail provided regarding the characteristics of internal medicine residents who have high interest in performing procedures. To our knowledge, such findings have not previously been reported. However, our study has several limitations. The study was carried out at a single site, limiting generalizability; VUMC has a historically large proportion of residents pursuing procedural subspecialties. Also, the questionnaire was optional for residents, potentially introducing selection bias for residents interested in performing procedures.

Further studies should examine

resident perspectives across multiple institutions. Secondly, future investigation should look to identify additional drivers of procedural interest such as prior exposure both positive and negative as a learner during a procedure, number of procedures observed prior to attempting a procedure, and qualitative analysis of educational exposure prior to performing procedures. Finally, studies that pilot prospective interventions like dedicated medical procedure targeted to increase procedural interest among residents are warranted. Despite the lack of graduation requirements for procedural competence, residents

continue to have an interest in bedside procedures. It is important that academic medical centers continue to have robust training experiences in procedures given residents' high interest.

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continued on page 16

LUNG ULTRASOUND IN COVID-19

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combination of clinical presentation with positive reverse transcriptase polymerase chain reaction (PCR) testing is the current standard to diagnose Coronavirus Disease 2019 (COVID-19).^{1,2} Challenges to this approach include lack of specificity of signs and symptoms, and limitations of PCR testing including test availability, delays in obtaining test results, and false negative test results early in the clinical course.^{1,3}

Chest computed tomography (CT) scans have high sensitivity (98%) for detecting pulmonary infiltrates compared to PCR testing (78%) in COVID-19.¹ However, CT scans are costly, require extensive disinfection, lack portability, and expose patients to radiation. The American College of Radiology explicitly recommends against routine use of CT scans in COVID-19 patients. Lung ultrasound (LUS) has shown strong correlation with chest CT scans for diagnosing and monitoring COVID-19 lung disease.¹ Its portability, ease of disinfection, and immediate availability of results are major advantages in COVID-19.

This article describes common LUS findings, diagnostic accuracy of LUS compared to CT scans, different LUS protocols and scoring systems, and potential use for prognostication in COVID-19.

Diagnostic Accuracy

LUS has comparable diagnostic accuracy as chest CT scans for severe COVID-19 lung disease.³ In an observational study of suspected COVID-19 patients, LUS had a sensitivity of 92%, specificity of 71%, positive likelihood ratio of 3.1, and negative likelihood ratio of 0.1 compared to chest CT scans, and no significant difference was seen in sensitivity and specificity of LUS versus chest CT scan. Another study demonstrated similar sensitivity (89%) for LUS in patients suspected of COVID-19 presenting to an emergency department.⁵

LUS Findings in COVID-19

The posterior and lower lung zones are most often affected in COVID-19.² New or worsening infiltrates in

the anterior zones may herald clinical deterioration.⁶ LUS findings in COVID-19 typically extend to the periphery, making them easily visualizable with ultrasound. LUS patterns have been progressively described as follows (*see images*):^{1, 2}

- mild to moderate (early): Irregular and thickened pleural line; discrete B-lines alternating with normal lung with A-lines ("skipped lesions"); small consolidations (~1 cm).
- severe (progressive): Confluent or fused B-lines; large consolidations.
- critical (advanced): Extensive confluent B-lines and consolidations in upper and anterior lung zones; bilateral interstitial pattern with consolidations ± air bronchograms in the posterobasal lung zones.

Pleural effusions and lymphadenopathy are only seen in 7-9% of COVID-19 patients.¹ A smooth pleural line with discrete B-lines in the upper lung lobes is suggestive of cardiogenic pulmonary edema, while an isolated lower lobe consolidation with dynamic air bronchograms is more likely bacterial pneumonia.^{2, 4}

Protocols

Multiple LUS protocols have been described for evaluating COVID-19 patients. A low-frequency phased-array^{3, 6} or curvilinear transducer⁵ is used to evaluate the lung parenchyma while a high-frequency linear-array transducer allows detailed assessment of the pleural line. A lung or abdominal exam preset with tissue harmonic imaging turned off is typically used, and the screen depth is set to 12-15cm.³

Data comparing various COVID-19 LUS scanning protocols are limited. Heldeweg, et al, found a 6- and 12-zone protocol may be equivalent when correlating findings to a CT scoring index to predict a composite outcome of death and prolonged ICU stay. Similar to the continued on page 9



Lung Ultrasound Findings in COVID-19. (A) Normal lung ultrasound is characterized by pleural sliding and A-lines, (B) Discrete B-lines are hyperechoic, laserlike artifacts seen in early COVID-19 disease, (C) Confluent B-lines are seen when individual B-lines coalesce, and (D) Subpleural consolidations, small hypoechoic areas just below the pleura, are seen in progressive COVID-19 disease. (*Nilam J. Soni, MD*)

popular BLUE protocol (Bedside Lung Ultrasound in Emergency), a 6-zone protocol allows faster imaging and reduces clinician exposure time.²

Scoring System and Prognostication

Soldati, et al, proposed a standardized COVID-19 LUS scoring system that can be used for triage, severity classification, and prognostication. ^{1, 2, 5, 6} Each lung zone is scored 0 to 3 and the total score of all lung zones reflects the following degree of reduced lung aeration:²

- 0 = Normal aeration pattern with continuous pleural line and A-lines.
- 1 = ≥3 Discrete B-lines suggesting some loss of aeration. Pleural line may appear thickened and irregular.
- 2 = Confluent B-lines with or without small subpleural consolidations, suggesting severe loss of aeration.

3 = Large consolidation, signifying complete loss of aeration.

This scoring system was applied to hospitalized COVID-19 patients and the predictive ability of an abnormal LUS exam was superior to CXR. Patients with a high (19-36 points) versus low (0-18 points) LUS score had a 2.6-fold increased mortality and a 4.2-fold increased composite outcome of death or need for mechanical ventilation.⁶

Areas of Uncertainty

Several areas of uncertainty exist for future research of LUS in COVID-19. First, consensus on a standardized protocol and scoring system is needed. Second, even though LUS outperforms CXR for detection of pulmonary infiltrates due to COVID-19,^{4, 6} the effect of LUS-guided care versus routine care on patient outcomes, healthcare costs, and resource utilization are needed. Additionally, the role of LUS to guide decisions about mechanical ventilation and proning of critically ill COVID-19 patients with respiratory failure warrants further investigation.

Conclusion

LUS outperforms CXR for detection of pulmonary infiltrates and correlates well with chest CT findings in COVID-19.¹⁻³ A 6- or 12-zone LUS scanning protocol provides high diagnostic accuracy in COVID-19, and a LUS score can be used for prognostication.^{2, 5, 6} Future research and consensus are needed to develop standardized protocols and evaluate the impact of LUS on health outcomes of COVID-19 patients.

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9

REVIEWING BLOCK GRANTS FOR MEDICAID: TENNCARE III

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n January 8, 2021, Tennessee became the first state to undertake block grant funding for its Medicaid program. Entitled "TennCare III" and approved by the Centers for Medicare and Medicaid (CMS) as a Section 1115 waiver, Tennessee's block grant caps federal funding for Medicaid programs, instead of the traditional open-ended matching of state funds. Lauded by the Trump administration as a means of delivering more efficient health care but met with concern from patient and physician advocacy groups, including SGIM, wanting to preserve patient access, block grants are a controversial policy tool to refashion Medicaid financing. It is vital for internists to be familiar with this important policy debate, as block grants for Medicaid have important consequences for health equity, access, and caring for a complex, low income population. In this article, we further describe block grants and highlight the main arguments for and against them. The authors adapted content from a Leadership in Health Policy Program (LEAHP) Journal Club for this article.

Background

Medicaid is a public health insurance program that covers nearly 79 million low-income Americans representing nearly 1 in 4 Americans. Medicaid accounted for 16% of national health expenditures in 2019, and at the state level accounted for, on average, 29% of state budgets.¹ Medicaid is jointly funded by individual states and the federal government. In the traditional open-ended arrangement, the federal government matches a state's Medicaid spending using the Federal Medical Assistance Percentage (FMAP). The FMAP calculates the proportion of federal matching for each dollar each state spends on Medicaid, ranging from a statutory minimum of 50% to a maximum of 83%. The FMAP rate is based on each state's average per capita income, so states with lower average incomes have a higher FMAP. The FMAP creates flexibility in Medicaid financing during times of increased program costs, either due to increased enrollment

or increased beneficiary costs. This has important implications during economic downturns, such as during the COVID-19 pandemic, when enrollment historically increases, because federal funding increases proportionally.

There are federal statutory requirements for Medicaid. However, historically states have used Section 1115 waivers, which grant authority to the Health and Humans Services Secretary to approve demonstration projects, to individualize their Medicaid program outside of these requirements. Section 1115 waivered demonstrations need to promote the objectives of Medicaid and be federally budget neutral. They are typically approved for a 5-year period with the possibility of extension based on review of the program.

Under the Healthy Adult Opportunity program, the Trump administration has proposed using these waivers to authorize block grant programs. While Tennessee has used Section 1115 waivers to tailor its own Medicaid program since 1994, TennCare III marks the first time any state has sought to employ a block grant structure.

Block Grants

Block grants differ from traditional Medicaid financing. States with Medicaid programs funded through block grants would no longer receive open-ended matched funding from the federal government based on the FMAP. Instead, they would be allocated a fixed amount of federal funds (either in aggregate or on a per capita basis) to cover their Medicaid program. Because federal funds are capped, the state would assume more financial risk. Although states would be responsible for higher costs of their Medicaid program, they have the potential to share in savings from lower costs.

Block Grants Through TennCare III—A First in the Nation

TennCare III—Tennessee's Section 1115 waiver—follows an aggregate block grant structure, approved for an continued on page 11 unprecedented 10-year period.² It also contains the following unique features:

- an aggregate cap, which is subject to change if enrollment changes more than 1% from base year enrollment;
- 2. value-based savings, where the state would be eligible for up to 55% of any savings pending meeting yet to be defined performance metrics, which must be reinvested in state health programs;
- 3. increased flexibility to add coverage and benefits without approval from the Centers for Medicare and Medicaid Services (CMS), but not to restrict benefits or reduce coverage;
- 4. a commercial-style, closed drug formulary; and
- 5. state control over the amount of uncompensated care funding for hospitals.

Argument for Block Grants—The Ten-thousand-foot View

Support for block grants like TennCare III fall under fiscal and programmatic design arguments that favor value-based care and increased flexibility to improve health outcomes for low-income Americans. As argued by former CMS Administrator Seema Verma, the sustainability of Medicaid programs has been a concern, placing state budgets under increasing stress at the risk of "crowding out other priorities like public safety and education," without clearly defined improvement in health outcomes.³ There are also concerns regarding inflexible federal Medicaid mandates which limit "routine or innovative" changes to individual state's programs. In removing these limitations, block grants are a proposed solution to curtail rising Medicaid costs "by giving states unprecedented flexibility" in program design in exchange for greater accountability for managing Medicaid, which ultimately "aligns financial incentives to improve quality of care and health outcomes."

Many of the same arguments for block grants have been highlighted in Tennessee. The Tennessee Department of Health has itself argued that the opportunity for savings given the 'successful management of its Medicaid program' can be reinvested to improve the health of TennCare members, and the improved flexibility for Tennessee to operate its own Medicaid program. Additionally, Tennessee's administration contends that block grants will not lead to reductions in populations served, benefits, quality, or provider rates

Arguments Against Block Grants—Preserving Health Care for Low-Income Americans

Block grants have drawn criticism from patient and physician groups, as well as health policy experts, concerned about whether block grants fulfill the overall mission of Medicaid. Physician based organizations, such as Society of General Internal Medicine and the American College of Physicians, argue that block grants have the potential to reduce access and healthcare benefits to low-income Americans, cap program benefits, reduce provider payments, or increase cost sharingall of which limit Medicaid's fundamental role as a critical safety net program caring for complex and vulnerable populations.^{4, 5} Furthermore, block grants undermine the healthcare of low-income Americans at times of increased financial hardship, such as during the COVID-19 pandemic, by reducing Medicaid's ability to expand coverage.

Future Direction: Reversed Under a New Administration?

To date, no further action regarding block grants has occurred. While future block grant Section 1115 waivers are unlikely to be approved, the Biden administration has not yet walked back TennCare III, unlike work requirements for Medicaid eligibility, another key policy during the Trump administration. TennCare III's fate could also be determined in the courts as experts determine whether block grants are allowed under Section 1115 demonstration waivers. Health policy experts continue to watch this space and its impact on vulnerable populations. However, as internists concerned about the health equity implications of providing high quality care to low-income Americans, we recommend SGIM advocate to CMS for TennCare III's rescindment. We also recommend that internists in Tennessee advocate for legislation that would increase access to health care and reduce health disparities, such as Medicaid expansion. Block grants for Medicaid may lead to savings, but they have the potential to cause irreparable harm to the health of vulnerable residents of Tennessee.

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continued on page 16

BREADTH

REFLEJOS IN THE MEDICAL FIELD

Shivani Jani, MD

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I molecular the photograph of a five-year-old girl, her big brown eyes a window into her childlike innocence. She's wearing a shirt that is two sizes too big and a frown. The setting seems to be a small room with walls made of bamboo. A simple piece of paper in front of her reads, "fever and cough for three days and discharge from the left. PE- left ear TM red. Diagnosis: Otitis Media." The photograph is titled, "Finding Normal Within the Abnormal."

This image is striking for many

reasons. I see the juxtaposition of a typical diagnosis in childhood with an atypical setting. I think about the subject, an innocent-five-year-old girl in a refugee camp, and the emotions her face conveys. Finally, I feel inspired by the image and a call to service. This thought-provoking piece was taken not by a professional photographer, but by a pediatrician who has paused to reflect and brought humanism to her work.

Reflejos, a first-edition print publication by the USF Department of Internal Medicine, includes 53 pages of poetry, essays, photography, and paintings by physicians in our department. This is no simple picture book. A deeper look reveals insightful human beings behind the white coats of our attendings, fellows, and residents. Named after the Spanish word for "reflections," *Reflejos* is just that: each poem, essay, and photograph reveals each physician's humanity in a unique way. It is truly a beautiful and powerful idea to be behold.

Reflejos is a bounty of inspiring work—you can feel the human spirit exuding from its pages. A haiku written by a resident describes the emotions of welcoming your first child into the world—you feel the writer's anticipation and excitement. Another piece by a leading infectious disease specialist is a still life painting of a green apple. Turn the page and you will find professional-quality photographs from all over the world.

Each piece shows us that we bring our own experiences, backgrounds, and perspectives to our jobs as physicians, and we should not forget who we are in our



This photograph serves as the cover page of the first edition of *Reflejos*. The orb reflects a beautiful sunset in Tampa Bay, FL. *Elimarys Perez-Colon, MD*

embrace of the profession. Our lives with and without the white coat are intertwined, each a reflection of the other. In a world of increasing screen time, data, and numbers, these reflections matter even more. Art reminds us that when we hang up our coats at the end of the day, we are people first: It seeks to recenter us as individuals and to remind us to look inward. As physicians and healthcare workers, we must pause to reflect and take a moment to nurture ourselves

and our minds. Only then can we continue to nurture and care for those around us.

Van Doren and Henry put it so well in a previous SGIM Forum article: we have to normalize a culture of introspection in our field of work.¹ Reflejos embodies this view, and I cannot agree more. Also, by leading this project, I discovered the depth and breadth of talent within our physician community. Reflejos offers a platform that not only fosters an environment of openness and creativity among our physicians and trainees but also provides a medium for vulnerability and individualism. As a result, I felt connected to my colleagues in a way that was not possible before. To me, a successful infectious disease attending physician is a skilled painter. A co-resident is an emotional, proud father. A pediatrician on a mission trip is a photographer and storyteller. Each physician is an individual, their humanity reflecting in their work and their work reflecting in their humanity.

Reflejos is available for free online: online.anyflip. com/iqzsq/ewfd/mobile/index.html.

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 Van Doren V, Henry T. Draining the pool: Our Collective responsibility to end racism in medicine. SGIM *Forum*. https://connect.sgim.org/sgimforum/ viewdocument/draining-the-pool-our-collective. 43(10):6-7. Published October 2020. Accessed June 15, 2021. inpatient or outpatient phenomenon? I sincerely hope that our members will continue to investigate the July Effect as it relates to academic general internal medicine.

In addition to the changes within the learning environment, the July Effect may have another meaning to our Society as it marks the beginning of a new fiscal year. In the business world, the cycle follows the path of 1) the Startup, 2) Growth, 3) Maturity phases, and the final phase of 4) Renewal/Decline.⁴ This fourstage cycle aligns well with SGIM's efforts: for the past two months, the SGIM Council established a budget and program for the upcoming year with the guidance from the finance committee. The Commissions and Committees submitted their annual plans and work is well underway to align these plans with our Councils' strategic direction to move us into the growth phase.

In the fall, we will be using best practices to implement these plans. During this time, SGIM will also begin to follow through on our Diversity, Equity, and Inclusion (DEI) Statement issued in May⁵ to ensure a diverse, inclusive society for all. The winter will provide the opportunity for us to enter into the Maturity phase. The Board of Regional Leaders (BRL) and Association of Chiefs in General Internal Medicine (ACLGIM) will be in the midst of their programming year and will be testing the waters for what it will be like for us to gather together face-to-face. It is within the Maturity phase that the SGIM Annual Meeting program committee will be preparing the Society's inflection point towards the meeting in Spring 2022 when the Renewal phase returns and new possibilities come. During that phase, all SGIM members are poised to deeply engage; after the annual meeting we always make a generative decision. Was it worth it? Yes! What can we do better? A lot! It is at that moment that we work to prevent the Decline phase, and begin the cycle all over again. In June and July, we then ask the same questions and there are often critical choices to be made. For example, what new research questions should be considered? How do you improve your clinical operations year after year? How can we ensure a robust learning environment for the next generation? What should I submit for the Round 1 call for SGIM Annual Meeting workshop and clinical update submissions? As July begins, we can again approach it with caution and excitement.

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SGIM

FROM THE SOCIETY (continued from page 4)

distinguished professors were quite inspiring. The abstract presentations and workshops demonstrated how members are applying their interests and expertise in education, clinical care, policy, and research to the challenges we face amidst the pandemic and the ongoing problems of social injustice. Despite the limitations of a virtual format, participants seemed to appreciate the networking opportunities provided by the national meeting. Ultimately, we learned and felt inspired that SGIM members are actively engaged in our mission of cultivating innovative educators, researchers, and clinicians in academic general internal medicine, leading the way to better health for everyone!

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patient characteristics and conditions. Importantly, this includes the social determinants of health. MDM is calibrated based on the number of problems addressed and the complexity or status of those problems. For this reason, problems should be designated as an acute exacerbation, a chronic condition requiring active management, or a stable chronic condition for which you plan to continue current management. Thus, the note should focus on the key information used to formulate the assessment and the plan, but there is no need to copy anything that is otherwise readily obtainable in the electronic medical record. Similarly, personal interpretation of data or a consultant's report is more informative than copying and pasting a radiologist's findings, which are already in the medical record.

Put the core content at the top. There is no reason that notes need to build to a conclusion and no need to separate the key history from the assessment and planning. These should all flow together in the charting under a given condition, problem, or characteristic.

Consider how the information will be used. Your notes both support your own continuity of care and summarize the information needed by the next clinical person, perhaps including any barriers to care, side effects to previous regimens, and patient preferences (e.g., a personal desire by the patient to avoid injections or to focus on lifestyle modification).

Framing Documentation for Open Notes

OpenNotes access is now a part of federal legislation. Our notes have to be simultaneously written for ourselves, our colleagues, and our patients. A recent article published in JGIM highlights the many ways our medical jargon can be jolting to patients, and suggests ways we might document differently for the lay community who can—and should—read our notes.³ Composing patient-friendly notes may require a different perspective than most of us were taught in training. What are some practical tips for documenting notes that better meet patient expectations?

- 1. See your note from the patient's perspective. Avoid jargon, acronyms, and pejorative language. Summarize in a way that is not intimidating. Cite the patient's reason for the appointment as their *primary concern* rather than their *chief complaint*; name a problem as *elevated* BMI rather than morbid obesity. Additional considerations include referencing a person's age rather than describing as *elderlv* and to refer to disease states such as a *person with sickle cell* disease in place of a sickler.3 Replace *dyspnea* or "SOB" with difficulty breathing and cardiomyopathy with enlarged heart. Stating a patient "denies tobacco use" may sound accusatory; the objective comment that "the patient does not smoke tobacco" makes the same point.4
- 2. Use a conversational tone. Write as if you are speaking to your patient. Consider a second-person perspective: "We discussed starting metformin this evening and checking the blood sugar each morning" instead of third person: "Metformin prescribed and instructed the patient to check qam fingersticks daily."⁴
- 3. Tell what happened. Use your note to reinforce the plan of care you discussed at the visit. If your note includes the possibility of cancer, your conversation with the patient should have already communicated this thought process.⁴
- 4. **Provide support, not judgment.** For example, "The patient chose not to pursue treatment" instead of "The patient refused treatment" or was "non-compliant."⁴
- 5. Encourage your patients to read the notes. These notes can serve as a reminder of the visit and next steps as well as a tool for patients to share information

with others on their care team. Ask the patient to view the note as a means to solidify mutual decision making between the primary care physician and patient. For example, write, "We discussed the side effects of this medication and ways in which it could be helpful," or "We decided on starting at a half dose to lower the risk of side effects."⁴

As physicians, we have become unwilling participants in the documentation burden, both creating and bemoaning "note bloat." We have used note templates, cut and paste, etc. to meet unreasonable and anachronistic expectations. We hope that this summary guides SGIM members in preparing notes that are not only less burdensome and more useful for the next clinician, but most importantly, for the patient.

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SGIM

14

then men), one's prior salary, negotiation skills, leadership positions, productivity, and distribution of effort in tasks that are less likely to be remunerated (so-called housekeeping tasks that are more often assigned to women). Incentive compensation is often driven by clinical productivity. Research demonstrates that women may see fewer patients but provide higher quality care; however, this can perpetuate the gender pay gap as most current compensation models do not yet reward quality over quantity.

An important and sobering take away of this chapter is that women are at risk for lower salaries beginning immediately upon completion of training and throughout their careers, resulting in an initial pay gap that is perpetuated and potentially worsened across one's entire career. The financial significance of this difference over a career and the importance of a comprehensive approach that recognizes the impact of second-generation gender bias, is illustrated in a study that simulated accumulated wealth based on existing gender-based pay disparities before and after institution-wide gender equity interventions. The gender equity interventions in this study,³ are similar to many that are described Chapter 6, and include: making gender equity an explicit part of the institutional mission and creating a gender equity monitoring committee, conducting regular salary reviews with mitigation of gender-based gaps, establishing efforts to recruit and retain women, ensuring transparent promotion criteria, assessing faculty satisfaction, and addressing work-life issues. The authors found a difference of \$500,000 between men and women in accumulated wealth with no interventions to address second-generation gender bias versus a difference of \$66,000 over a career when gender equity initiatives were instituted.³ Other studies have estimated much higher differences between men and women physicians in accumulated wealth.

It is discouraging to note that in this simulated exercise a gap remains despite extensive efforts to address gender equity, thus demonstrating the need for a broad-based and ongoing institutional approach. Chapter 5 provides a framework for doing so using a change management approach to salary equity. Change management operationalizes the difficult work of turning the statement, equal pay for equal work, into a reality. This involves a stepwise approach beginning with identifying and characterizing the problem, envisioning a solution, communicating the plan, and persuading stakeholders to buy in and finally implementing and maintaining the plan. Threshold concepts, such as second-generation gender bias, can assist in this work by engaging all stakeholders in a new way of seeing the problem and potential solutions. Strategies specific to supporting and sustaining culture change around salary equity are presented in Chapter Six. Readers will note that these strategies address the many causes of salary inequity outlined in Chapter 2 and focus on ensuring salary equity at the beginning of one's career and across inflection points that may result in widening pay gaps such as academic promotion and leadership appointments. Specific processes related to recruitment, retention, and how leadership roles are determined are outlined. Implicit bias training is recommended, especially around the ways that gender stereotypes can influence hiring, performance evaluations, and promotion. Equitable compensation plans are critical in these processes as are routine salary reviews.

Recognizing that all culture is local and that institutions must work with local stakeholders and contexts when following a change management model, a case example is provided. From the Medical College of Wisconsin, the case example emphasizes the need for leadership at the very highest levels to commit to change, clarification of all processes and tying these to clear benchmarks and expectations, transparent and frequent communications, and accountability through reporting and annual reviews. The case highlights lessons learned at the local level and the need to anticipate unintended consequences, for example, around the challenge of salary transparency at a private institution.

Chapters 5-7 emphasize that addressing salary equity is not a women's problem but rather an institutional imperative grounded in fairness and sound business practices. Equity in pay benefits all aspects of the healthcare mission.

Closing the Gender Gap in Medicine provides a comprehensive, detailed, evidence-based approach to addressing the gender pay gap and is a must read for all stakeholders and especially for leaders in medicine. The timing for reading this book could not be more important. The COVID-19 pandemic highlighted and exacerbated existing gender disparities and has the potential to significantly worsen the gender pay gap if not addressed now. This book provides a transformative approach to understanding the problem and an actionable plan for getting unstuck.

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