

HEALTH POLICY

E/M CODING UPDATES: WHAT HAS CHANGED FOR 2020 AND WHAT IS SLATED TO CHANGE IN 2021

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Payment for clinical services is driven by the Medicare Physician Fee Schedule (PFS). The pricing of each service is established the first day of January each year by the Centers for Medicare & Medicaid Services (CMS). All service codes of the PFS are valued relatively to one another as required by Federal statute. Commercial and other government payers depend on the PFS when setting payment rates.

For decades, the AMA has had an outsized influence in this rate setting process through the CPT Editorial Panel and the Relative-value Scale Update Committee (RUC)—the former with its role in defining each service code and the latter with its recommendations for the relative values assigned to each service code.

The processes used by CMS to set payment rates have resulted in distortions in the PFS that have negatively impacted the values of cognitive evaluation and management (E/M) services. SGIM and other groups, including MedPAC, have repeatedly called for reform, urging CMS to more appropriately value primary care and other non-procedural services. In 2015, SGIM formed the Cognitive Care Alliance, an association of likeminded internal medicine subspecialties, including endocrinology, rheumatology, infectious diseases, hepatology, hematology, and gastroenterology. Our work has highlighted the relative degradation in the PFS valuation of cognitive services over the last three decades even as the day-to-day work of primary and cognitive care has become more complex.

Our advocacy has been rewarded. CMS finalized policy to increase reimbursement and reduce the documentation burden of E/M services effective January 1, 2021.¹ The agency also implemented other changes to promote care coordination that took effect January 1, 2020.

Changes Made in 2020

CMS recognizes that improved care coordination and reduced administrative burden can yield significant health benefits for Medicare beneficiaries. The agency had already added two sets of codes to reimburse for non-face-to-face care to the PFS, but was concerned that adoption remained low. Therefore, the agency finalized changes in the CY 2020 PFS to improve the adoption of the transitional care management (TCM) and chronic care management (CCM) services. The agency also created a new set of e-visit codes to reimburse for certain types of non-face-to-face care.

Transitional Care Codes (TCMs): CMS has increased the work RVUs (wRVU) payments for the TCM codes, 99495 (face-to-face visit within 14 days) to 2.36 wRVUs and 99496 (face-to-face visit within 7 days) to 3.10 wRVUs. CMS made these changes “to support our goal of increasing medically necessary services.”

Chronic Care Management (CCM, two or more chronic conditions): The current set of 4 CCM codes, two for complex and two for non-complex will remain. The stipulations for the care plan are now more straightforward with the following required elements: (1) a problem list, (2) expected outcome and prognosis, (3) measurable treatment goals, (4) cognitive and functional assessment, (5) symptom management, (6) planned interventions, (7) medical management, (8) environmental evaluation, (9) caregiver assessment, (10) interaction and coordination with outside resources and practitioners and providers, (11) requirement for periodic review, (12) “when applicable,” revision of care plan.

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E-visits: CMS also established six new codes, three for physician services cover *patient initiated* non-face-to-face care delivered electronically, including through patient portals, email, and text, over each 7 day period, 99421, for between 5-10 minutes with 0.25 wRVUs; 99422, 11-20 minutes with 0.50 wRVUs; and 99423, 21 or more minutes with 0.80 wRVUs in 2020. There are also three for electronic care delivered by other healthcare professionals.

Countersigning Student Documentation: Attending physicians will only be required to attest to the review and verification of student documentation. There will no longer be a requirement for redocumentation.

Significant Changes in Outpatient E/M Service Code Payments and Documentation, 2021

The most profound changes in physician compensation will begin in January 2021. CMS finalized policy to improve the payments for the revised outpatient E/M family and created an “add-on” code, GPC1X, that can be applied to all E/M visits for work associated with “ongoing comprehensive care or visits related to a patient’s single, serious, or complex chronic condition.” To reduce administrative burden, CMS adopted changes to the documentation of these services.

The table summarizes the changes in the E/M code values and the values including the complexity add-on code, GPC1X, that would be combined with every primary care outpatient new or established patient E/M code:

Documentation for the outpatient E/M codes will be based on either (1) the level of medical decision making (MDM) which will be little changed from the existing conventions (the three subcategories will remain: number and complexity of problems, amount and/or complexity of data, risk of complications and/or

New Patient Codes					
	2021 wRVUs	Increase	2021 wRVUs + GPC1x	Increase with GPC1x	Time (minutes)
99202	0.93	0%	1.26	35%	15-29
99203	1.60	13%	1.93	36%	30-44
99204	2.60	7%	2.93	21%	45-59
99205	3.50	10%	3.83	21%	60-74
Established Patient Codes					
99212	0.70	46%	1.03	115%	10-19
99213	1.30	34%	1.66	71%	20-29
99214	1.92	28%	2.25	50%	30-39
99215	2.80	33%	3.13	48%	40-54

morbidity or mortality) or (2) total time spent on the date of service. All time spent related to a specific encounter (pre-visit, face-to-face, post-visit conversations with family, documentation, etc.) on the date of service will count toward code level selection.

CMS will also allow the use of an extend service code, 99XXX, for every 15 minutes of time beyond the upper limit for the 99205 and 99215 codes. This code will have a wRVU value of 0.61 and can be added after the first minute of addition service time and repeated indefinitely for each 15-minute interval. For example, for an established patient, the 99XXX could be used when the total time on a day exceeds 54 minutes and then again if the total time exceeds 70 minutes.

Implications for GIM Practices

TCM codes are critical to reestablishing continuity of care following hospitalization or facility-based rehabilitation. Many practices still do not have the workflows established and EHR support for the documentation. The enhanced CMS payments provide significant incentives to improve practice infrastructure. Likewise, CCM codes remain underutilized and the work delivered by the non-physician staff is frequently not billed.

The option to bill for e-visits offers intriguing possibilities but, like the new E/M time documentation requirements, tools will need to evolve to substantiate billing, especially for several interactions over a 7-day interval.

It remains unclear if commercial payers will adopt CMS’ new and established outpatient E/M changes. In the past, outpatient E/M changes have been adopted. Importantly, CMS could make further changes in the CY 2021 PFS rulemaking cycle and many stakeholders are advocating for changes and possible elimination of the GPC1X add-on code..

The documentation changes may not reduce administrative burden as much as CMS anticipates. Though there will be no need to record a patients’ history, family history, social history, ROS, physical examination for billing purposes, the incentive to “cut and paste” readily accessible data to support inflated levels of MDM will continue unchecked.

The tabulation of time to support the level of service code billing will need to evolve. Medicare will expect MDs to tally up the total time spent on the calendar day of the encounter spent with all activities, such as chart review, face-to-face time, post visit time for ordering and charting, time spent with staff

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FROM THE EDITOR

PHOTOGRAPHS

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

*"We keep this love in a photograph
We made these memories for ourselves
Where our eyes are never closing
Hearts are never broken
And time's forever frozen still. . ."*

—Photograph by Ed Sheeran



Giuseppe Conigliaro, Porto Empedocle, Sicily, circa 1962.

I recently needed to go through hundreds of family photographs, some going as far back as the last 70 years. It was both sad and heartwarming to look at family and friends over the years, including those who have passed on and many still with me, but looking very different and much older today. I still can't believe that I used to be that skinny! It was interesting looking at changes in people, fashion, environments, automobiles, and even photo-taking behaviors. No one from the 1970s made a contorted face or hand gesture. I went through black and white pictures of my parents and grandparents back in Sicily, our ancestral home, where my grandfather ran a small grocery store near the center of town. Years later, the whole family would leave Sicily for better opportunities in America. In the pile were grainy Polaroid pictures from vacations in the Catskills, Cherry Hill, New Jersey, and Valley Forge, the old house on 84th Street, pictures of Aunt Nellie, Nonna Alfonza, Uncle Guido, and so on. It was interesting to see that in many of the images that were taken before the 1990s, there were cigarettes in the hands of my dad, uncles, and some of my brothers-in-law. They smoked everywhere; outdoors on the

beach, or other public areas, or indoors at a restaurant or at home with the rest of the family including around young children. There were also photos of people working in factories and in crowded rooms. Different social norms, different circumstances.

How does looking at a bunch of old photographs relate to general internal medicine? I think a lot. Photographs capture a moment in time and represent a still image of our lives. I wondered what the people I see in these photographs were thinking at the time they were taken. What were their hopes and aspirations? I feel that from my position, viewing their lives years later, and knowing what happened to them, I somehow, retrospectively, have a view into their future. A sort of retrospective cohort study by images. I look at these photographs knowing how things turned out for the subjects in them. Some turned out good, some not so good and others pretty bad.

Through these images, I also get a glimpse of the prevailing social norms and issues of the time. I now look at that through the lens of the concept of social

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discussion, and so forth. EHR time tags could provide assistance but these will have to be designed to be both accurate and flexible enough to accommodate times that are difficult to capture, such as a staff discussion or a long conversation in the waiting room with a patient's family.

The final changes to E/M payments will depend on how CMS implements these policies to meet budget neutrality requirements. The RVU value is established every January 1st and is known as the *conversion factor* (CF). Changes in the relative values for the service codes of the PFS are not accompanied by new Medicare dollars unless Congress chooses to fund added expenditures. The agency has not stated how it intends to conform with these require-

ments. Therefore, any increase in the RVUs for outpatient E/M services will require CMS to reduce the RVUs for other PFS services or change the value of the CF. Outpatient E/M comprises 27 percent of PFS spending so the redistributive impact will be significant. CMS has conducted additional research to address other distortions in the PFS. Recent published studies have questioned whether the current bundling of E/M service codes into 10- and 90-day payments for procedures should continue. Much of the paid for care is never delivered.²

These changes offer promise for primary care. Though there is more that needs to be done and though ongoing accuracy of the PFS remains suspect, the long overdue upgrades

in outpatient E/M code payment breathe new life into primary care and move our compensation closer to parity.

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SGIM

PRESIDENT'S COLUMN

2020 REFLECTIONS: IT IS ABOUT OUR PEOPLE

Karen DeSalvo, MD, President, SGIM

My year as SGIM president has been a rewarding and stimulating time learning to represent not only the members and our interests but also to balance the expectations coming at us from all directions. As I reflect on SGIM, one of the things I love about this organization is that our people are a priority—the members, the staff, and the communities we serve.



As I write this, I am closing out my year as SGIM president. It has been a rewarding and stimulating time learning to represent not only the members and our interests but also to balance the expectations coming at us from all directions. There is no playbook for being president of SGIM so I have relied upon the good counsel of prior presidents, the Council, other leadership, our SGIM staff, and always, my brilliant husband, Jay.

Jay has mastered work/life balance in a way that I never will. He is great at prioritizing the things that matter. One of the lessons I learn from him is that, when in doubt about how to select between your personal life and work priorities, *put your people first*—they are the lasting part of our lives, not the work. There will be plenty of opportunities that arise for professional advancement or to make an impact in the world. As I reflect on SGIM, this is one of the things I love about this organization. Our people are a priority—the members, the staff, and the communities we serve.

The past year has been a busy one for SGIM and our members as we have worked to put people first. We have found many ways to continue to strengthen the people part of what we do, including the organization that supports us. We have also made strides in shaping the environment in which we work and where our patients live and receive care.

The reality is that some of the successes we achieved this year have been years in the making. Each SGIM president has a focused area of priority for their term. I chose the social determinants of health (SDOH) which will be our Annual Meeting theme and the topic of an SGIM position statement. But SGIM presidents also strive to see that the members, staff, and our key partners see continuity year over year in our strategy, major organizational

priorities, and work effort. This means respecting the work that was started in prior years and ensuring that we follow through. It also means seeking to minimize distractions from the many competing priorities and issues that daily come through the inbox of SGIM leadership. We are constantly working to find balance in maintaining a focus on core priorities that can be achieved within our resources against the issues and new opportunities that arise every day.

One way we have stayed on track is by anchoring our work across the following four strategic goals:

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.

I am proud of the way the SGIM team has prioritized our work and partnerships to align around these four goals. I want to give you a snapshot of the kinds of progress we have made across our strategic goals since some of it may not be apparent. This work largely reflects the work of many people—not only the work of our talented staff but also of the scores of volunteers who give time and talent to advance our SGIM mission.

Goal 1: Promote scholarship in person-centered and population-oriented approaches to improving health.

- The *Journal of General Internal Medicine* continues to be a strong platform for research publication and has a current impact factor of 4.6. In addition to its success as an academic vehicle, it has evolved with

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an improved social media presence and a move to an online version following a successful contract renegotiation with our publisher. Thank you to everyone who made the choice to reduce our environmental impact through selecting the online version rather than the paper journal.

- The SGIM *Forum* continues to be timely, relevant and entertaining. Thank you Joe Conigliaro for your tireless service as Editor. You will be missed in that role! The *Forum* is a wonderful way for us to share ideas and will be even timelier next year as we move to an online-only version. Our new editor will be announced soon and will have the chance to learn from our experienced Managing Editor, Frank K. Darmstadt. It has been a joy learning from Joe and Frank this year.
- We hosted a round of regional meetings that were more successful than ever. Early results from evaluations are that they were well received. We provided innovations, such as POCUS training, and some meetings had SDOH as a theme to mirror that of the national meeting. Eric Bass attended nearly all of them and Council members were also engaged. We wanted our members to have a chance to share their thoughts with us about how the organization is doing. In my visits to two regional meetings, I was blown away by the talent—especially of the trainees who are the next generation of academic generalists.
- We are well underway with planning for the Annual Meeting to be held in Birmingham. Thank you to the team for their work to ensure we have another strong vehicle at which members can network and showcase their work. We are also taking advan-

tage of the opportunity of being in Birmingham to spotlight the importance of a key social determinant, civil rights, to driving health outcomes.

Goal 2: Foster the development of general internal medicine leaders in academic and other settings.

- Providing formal opportunities for career development is one of our core efforts at SGIM. Last year, we did deep work by a Task Force established by Giselle Corbie-Smith during her presidential year. That group defined the scope of career development programs at SGIM and outlined a roadmap to better harmonize curricula, evaluation, and other processes, like recruiting mentors. We are again making strides on that plan after bringing on board the newly established role of director of education.
- We successfully launched the Academic Hospitalist Academy 2.0 in partnership with the Society of Hospital Medicine.
- The organization continued to provide opportunities for our SGIM leaders on the national stage, including representation on national groups like the National Academy of Medicine Future of Primary Care Panel.

Goal 3: Ensure organizational health, including a thriving staff.

- This continued to be an area of intense focus for SGIM. We moved ahead with recommendations from a consultant report on how to strengthen our organization. For the first time in years, we have a full complement of staff.
- We worked to improve organizational processes that many of you may have experienced first-hand such as streamlining membership renewal. In addition, the Membership Committee put

forward a robust report that will guide action for the next few years.

- The Board of Regional Leaders harmonized some of the processes in the regions, such as leadership roles for their meetings and recognition programs. This not only aids in creating some alignment across the regions but also allows SGIM staff supporting the meetings to have more consistency.
- SGIM continued to be financially healthy. This was strengthened by successful development including donations from members and support from external sources, such as philanthropy and the Veterans' Administration.
- Council approved our inaugural enterprise wide dashboard to track our progress in our strategic goals.

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

- SGIM strengthened its relationships with the American College of Physicians and Alliance for Academic Internal Medicine to advance our shared policy efforts, such as primary care payment and research and education funding. Partnerships like these allow SGIM to have a broader policy impact than we would be able to alone.
- After years of dogged effort, we saw the release of the Center for Medicare and Medicaid Services proposal that rebalanced the physician fee schedule in a way that supports primary care. Longtime SGIM member John Goodson and our peer members of the Cognitive Care Alliance represented us in countless meetings bringing an evidence based approach to inform policy making. To me this is a model long-term effort, done collabora-

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tively with partner organizations that should guide our willingness to tenaciously take on bold challenges with a long-term view of effort—one that extends beyond the term of one SGIM president or even the terms of a Council but reflect focused strategic attention.

- The Health Policy Committee developed and tested a new approach to policy proposals to improve our ability to respond to high profile issues in the landscape. We tested this new process this year and saw key position statements move ahead including one on Firearms Research. Will continue to iterate this approach as we strive to see that SGIM is part of important policy debates.
- We agreed that we cannot have a “just health system” without addressing social needs of our

patients. A workgroup therefore developed an SDOH position statement to inform our organizational efforts and guide members in their everyday roles.

It is my fervent hope that every member and person on our staff “see” themselves in our work. We are doing it on your behalf and on behalf of the patients and communities for which we serve. But while the work is important, our mission is really about our people: “To cultivate innovative educators, researchers, and clinicians in academic general internal medicine, leading the way to better health for everyone”. SGIM is at its best when it is building leaders who can impact the future of health well beyond what we or our organization can do alone.

SGIM is family to me. Not because of the organization or the work, but because of the people.

Forgive the sentimentality, but those who know me well, will recognize that it is heartfelt. SGIM has been my family that first day that I stumbled into a workshop on running resident clinic at the SGIM Southern Regional Meeting. The people I met that day are now lifelong friends and people I admire. The experiences I have had in my volunteer work with SGIM have made me the person I am today and for that I am grateful. We have a proud history of inclusiveness, passion, caring, and support for our members in a way that isn’t stilted or programmed, but warm and familiar. I am proud of our work this past year, but know that no matter what work we take on in the future, or what changes may come, I hope we never lose our essence as an organization—to *put our people first*. It is what makes SGIM special to me and, I suspect, to many of you.

SGIM

MEDICAL EDUCATION: PART I *(continued from page 2)*

MEDICAL EDUCATION: PART I

APPLICATION OF ONE MINUTE PRECEPTOR TO TEACHING SOCIAL DETERMINANTS OF HEALTH

Frank Cacace, MD, FACP

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In this article, an adaptation of the One Minute Preceptor to teach about social determinants will be proposed. The application of the technique to address a learner's appreciation of social influencers of health in the life of a patient will be described. Finally the piece will also present examples of how to make teaching points related to these social influencers based on a learner's level of appreciation of them.

Working with students and residents while on rounds or in clinic, we all find ourselves learning and teaching in a rush. We often need to triage and move quickly to the next challenge, to the next discharge, or in clinic, to the next patient waiting. In moments like these, preceptors often utilize a time-tested technique called the "One Minute Preceptor"¹ whereby the "Five Microskills of Teaching" are performed in a compressed time. We diagnose a learner, make a high-yield teaching point tailored to the case and the learner's knowledge, and give feedback in a short time. To remind us, the typical steps go like the following:

1. "What do you think is going on?"—get a commitment
2. "What led you to that thought?"—probe for thought process
3. Teach a principle customized to the learner based on the case so far
4. State what the learner had right
5. Identify a gap and strategize how to fill it to serve the next patient better

Many faculty development sessions focused on clinical teaching skills in your departments and at regional/national meetings offered the microskills as a foundational approach. In addition, when probing for a thought process in step 2, some of us like to diagnose the learner as a Reporter/Interpreter/Manager/Educator (RIME) for that clinical content—this again is a time-tested rubric we've

utilized for years.² Questioning may then be done that not only confirms the learner's level but also attempts to propel that learner to a higher level.

These techniques are almost exclusively applied to the competencies of medical knowledge and patient care. One Minute Preceptor and RIME are highly useful to assess and teach fund of knowledge, but are less often applied to other core competency targets. With the rest of this piece, let's apply the five microskills and a diagnostic rubric to another competency and important learner target—that of systems-based practice, and particularly to an appreciation of the Social Determinants of Health (SDOH) in our patients' lives.

One Minute Preceptor has been applied to SDOH before—at the Society of General Internal Medicine's National Meeting in Washington DC, May 2019, there were two workshops presenting this application.^{3,4} In both, the example of a resident presentation in clinic—whereby a patient affected by a social determinant was unable to adhere to a chronic condition regimen—prompted audience learning and demonstration of the following One Minute Preceptor application:

First announce as the preceptor, "I'd like to take our conversation in a social determinants direction," then (see the table for suggested preceptor comments at each step):

1. "What part of the patient's life might you think is affecting his/her ability to adhere to treatment?"
2. "What do you know about the patient that leads you to that assessment?", "What can we do to help?"
3. Teach a principle based on the learner's level of SDOH appreciation (acknowledger, empathizer, activator, engager)
4. Remind the learner of what they had nicely considered
5. Make an SDOH related statement that fills a gap in the future

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Examples of Adapted 5 Microskills in a SDOH-Themed One Minute Preceptor	
Step	For Example, Say:
Get a Commitment	“What part of the patient’s life might you think is affecting his/her ability to adhere to treatment?”
Probe	“What do you know about the patient that leads you to that assessment?” “What can we do to help?”
Teach General Rule or Principle: Can customize this to learner based on whether probe step demonstrates they: <ul style="list-style-type: none"> • Acknowledge • Empathize • Activate • Engage (Can ask sample questions to make teaching point that either confirms or attempts to elevate the learner’s stage of SDOH appreciation/plan creation)	Acknowledgement: “Have we considered the patient’s uninsured status in medication choice?” Empathy: “Do you think the patient may be frustrated about unsafe conditions to exercise in their neighborhood?” Activation: “We have access to our areas’ HITESITE Web site to find SDH related services” or “We have a medicolegal partnership in our clinic” Engagement: “Let’s have our social worker come in for the rest of the visit to discuss Medicaid eligibility/plans”
Reinforce What Was Right	“Your thinking of googling local library ESL programs was excellent”
Fill in Gaps/Advance Stage	“Let’s be sensitive to patients with colder weather ER utilization patterns, and always screen them for housing insecurity”

Instead of overlaying the RIME rubric onto One Minute Preceptor for fund of knowledge and patient care, we propose the following for teaching SDOH within the One Minute Preceptor:

- **Is your learner an *acknowledger*? Do they realize there is an SDOH issue in the non adherence?**
- **Is your learner an *empathizer*? Do they sense and feel the patient’s frustration, rather than categorize the patient as *non compliant*?**
- **Is your learner an *activator*? Do they know resources available in the clinic site or the community that can serve this patient’s situation?**
- **Has your learner been an *engager*? Have they already engaged experts and resources in the clinic or the community to help the patient?**

To help a preceptor recall this in real time, we might call this the ‘reverse egophany’ (A->E->A->E) of learner SDOH appreciation stages.

An additional consideration for utilizers of this precepting tool would be that in order to close the loop on the SDOH circumstances of a case being presented, one would have to be very familiar with resources in their clinics, divisions, and communities. These may include embedded social workers, a medicolegal partnership, local SDOH themed Web sites to access community resources, links to pantries, links to transportation services, links to shelters and housing assistance, and links to local transportation services. Faculty development across all preceptors in a residency would be key.

And finally, use of this technique can segue to discussions of advocacy

for advancing SDOH not just on an individual basis, through the eyes of the learner/patient pair, but also on a broader scale. Enough interactions with learners along these lines may help identify those of our students and residents who may be interested in pursuing local and national advocacy efforts. The use of the SDOH-themed One Minute Preceptor may help move some of our learners toward an unrealized interest and passion.

I hope that clinical teachers will find this a useful adaptation of One Minute Preceptor to call attention to the social determinants of health in our patients’ lives and to the local resources available in our clinic and community settings to assist in their quest for good health.

Happy teaching!

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RESEARCH

KNOWLEDGE, ATTITUDES, AND PERCEPTIONS OF RESIDENT PHYSICIANS REGARDING MARIJUANA

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Information regarding providers' perceptions about either the use of marijuana as a medicine or the role of physicians in recommending marijuana to patients is limited.¹ Providers are in general supportive of medical use of marijuana in patients with chronic diseases, particularly in cancer patients; however, with significant practical concerns.² The growing marijuana use in the United States makes it imperative for physicians to understand marijuana's health effects.³

There is an insufficient amount of literature on the knowledge, attitudes, and perceptions of physicians regarding marijuana and how physicians feel about either the use of marijuana as a medicine or the role of physicians in recommending marijuana. Even though primary care physicians provide much of the health care for patients with the conditions for which marijuana is largely being recommended, the studies that focus on primary care physicians and their attitudes toward medical marijuana are limited.¹ Research in Colorado suggests that family physicians are recommending medical marijuana at relatively lower rates than other counterparts. Perhaps a continuity relationship with patients may influence primary care providers' behavior related to medical marijuana and may lead to more judicious recommendation of medical marijuana.¹ Further studies of other physician specialties and similar research in other states would confirm that these findings are generalizable beyond family physicians in Colorado.

Methods

The objective of this study was to determine the knowledge, attitude, and perception of internal medicine resident physicians regarding marijuana use, to extract common threads or beliefs, and to identify their educational needs. Our study population consisted of residents in the department of Internal Medicine in a large academic and community-based system in the state of South Carolina.

All of our resident physicians practiced and trained in the hospital and ambulatory care setting and had a variety of exposure to marijuana use among their patients.

We surveyed 41 Internal Medicine Residents with a 10-item self-administered anonymous questionnaire assessing knowledge, attitudes, and perceptions about marijuana's medicinal and recreational use, prescribing preferences, and legalization implications. All questions had answer choices based on a 5-point Likert Scale. The survey was self-administered by paper and pencil in a group meeting. The study protocol was approved by the institutional review board of Greenville Health System. All participation was anonymous and voluntary. No incentive was provided for participation.

Results

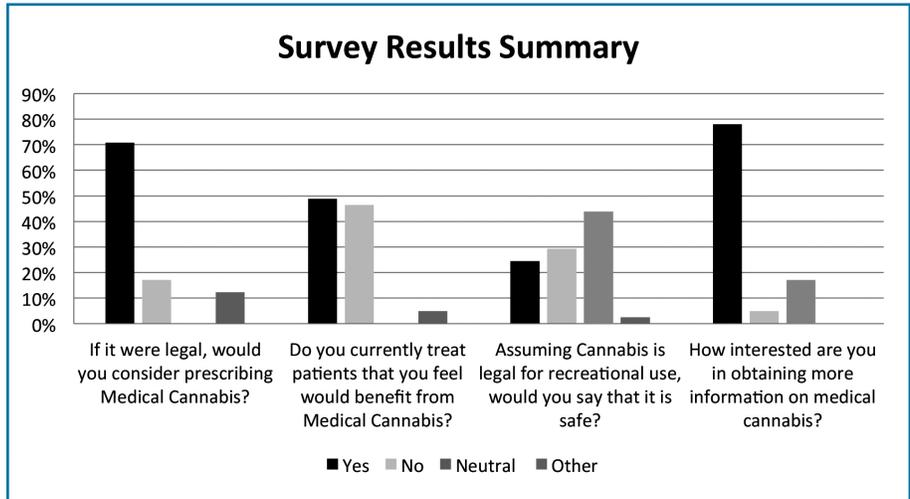
Our results indicated that approximately 70% of resident physicians would prescribe medical marijuana to patients in order to treat certain illnesses. Approximately 80% of the participants in our survey wanted more education on marijuana use to inform them further (see figure). Internal Medicine resident physicians in our project demonstrated a strong desire for educational opportunities about medical marijuana and the intent to treat chronic diseases with medical marijuana where it might be an option.

Discussion

Previous research on physicians' attitudes regarding marijuana has yielded similar results as ours.¹ Further studies of other physician specialties and other states would confirm the generalizability of the findings from our project and other similar efforts. Currently, there is little in the form of curricular content or continuing medical education about medical marijuana available to the physicians in the United States.^{1,3} The lack of research on the health

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effects of marijuana also contributes to the insufficient knowledge and discomfort regarding marijuana on the physicians' part.³

Most primary care providers and trainees will benefit from knowledge about the health effects of marijuana.^{5,6} We anticipate our findings to further strengthen the need of curricular integration of education on medical use of marijuana and its health effects into the medical education. The issue also remains if an increase to the access to marijuana can reduce the use of opioid prescriptions and thereby reduce the risk of opioid use disorder.⁴ Thus, the need of physicians' education regarding marijuana is urgent. This need is especially critical as there is evidence to indicate lack of preparedness on the part of the physicians to prescribe marijuana in the states where legalization of medical marijuana has occurred.⁶ Strict guidelines to determine who is a candidate for medical marijuana therapy and formal training requirement for physicians before recommending medical marijuana for patients will be steps in the right direction.

The provision of medical marijuana has been associated with fewer opioid prescriptions, less opioid-related substance abuse, and fewer opioid overdose deaths.⁴

An important fact to explain these findings is that although marijuana offers a lower risk of addiction and virtually no risk of overdose, relative to opioids, it is still effective in treating pain. Thus, conclusion can be drawn that medical marijuana may be an underutilized tool to fight the opioid crisis. Previous work also suggests that medical marijuana laws are associated with lower opioid-related mortality strengthening the arguments in favor of considering medical applications of marijuana.⁷

At present, 33 states have approved marijuana for medical use—10 of which have legalized it for recreational use. However, marijuana for any purpose is still illegal at the federal level. The South Carolina Senate is considering legalization of marijuana for medical use. The timing is ripe therefore for the providers in South Carolina to be educated and trained on marijuana's health effects. We are optimistic that the South Carolina physician workforce can be more prepared to prescribe medical marijuana judiciously and educate patients and the South Carolina community effectively regarding marijuana use.

Our study emphasizes resident physicians' interest in learning more about marijuana. We recommend

integration of education about marijuana in undergraduate and graduate medical education, including biochemical effects, clinical relevance, and legal history of marijuana. Areas where evidence is lacking should also be emphasized. These educational efforts can further be streamlined to specific areas and scope of practice. Competencies in medical knowledge and clinical skills related to marijuana can be incorporated in various boards' examinations.³ Equally important is the availability of continuing medical education activities and regularly updated clinical practice guidelines for the practicing physicians. Such endeavors will ensure preparation of health care workforce regarding medical marijuana. Data from Colorado indicates that 92% of primary care physicians agreed to have access to medical marijuana-related continuing medical education.¹ Certain states—Maryland, Massachusetts, and New York—require state-based physician certification to recommend medical marijuana. Similar practices could also be considered in other states where marijuana has been legalized, to address the knowledge gaps about the effectiveness of marijuana for state designated qualifying conditions and to provide accurate information to the providers about the potential for drug interactions.

As we move toward greater acceptance of the medicinal benefits of marijuana, there is an increasing need for the establishment of evidence-based guidelines to assist clinicians in their prescribing practices in order to optimize patient care and quality of life. Furthermore, it is imperative that physicians and physicians-in-training be trained in those specific guidelines on marijuana either through curricular integration in undergraduate and graduate medical education or through continuing medical education.^{3,5,6}

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MEDICAL EDUCATION: PART II

TRAINING INTERNAL MEDICINE RESIDENTS TO ACT ON SOCIAL DETERMINANTS OF HEALTH USING SOCIAL DETERMINANTS OF HEALTH FAST FACTS

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Mounting evidence has demonstrated that social determinants of health (SDoH)—such as housing, education, income, neighborhood safety, food availability and social support—are strongly correlated with health outcomes and contribute to overall health more than traditional medical care.² Despite their importance to health, SDoH have not been a focus of physicians trained predominantly to intervene on downstream health effects created by a suboptimal biopsychosocial environment. With growing realization about the importance of the social determinants of health (SDoH) on health outcomes, there have been increasing calls for physicians to take a proactive role in asking about and addressing SDoH.¹ The Society for General Internal Medicine (SGIM) and American College of Physicians (ACP) have called on clinicians to adopt a population health perspective in clinical practice *and* incorporate contextual factors responsible for illness into the care of individual patients.² Similarly, there have been calls to increase training on the SDoH in medical school and residency education.³ Elements of SDoH intervention are included in ACGME competencies of medical knowledge, patient care, practice-based learning, and system-based practice.⁴ Despite the growing emphasis on SDoH, key components of SDoH are not routinely incorporated into the formal curriculum, and most SDoH education is acquired through informal experiential learning on the wards and in clinic without a framework on which to scaffold learning.

To address the educational need for SDoH training, a group of clinicians and educators developed an educational tool titled “Social Determinants of Health Fast

Facts” that published on the *Journal for General Internal Medicine’s* online content since 2013.⁵ The SDoH Fast Facts are brief, evidence-based summaries of key SDoH topics commonly encountered by clinicians grounded in a clinical scenario. Each SDoH Fast Fact presents a clinical vignette followed by a multiple-choice question on the SDoH. The question is followed by a review of the correct answer as well as 2-3 key evidence-based learning points that provide evidence-based knowledge on SDoH to provoke interest in the evidence in the medical literature pertaining to SDoH and resources available to address SDoH in a clinical setting.

Given that prior studies have shown that clinicians benefit from case-based learning and on-demand continuing medical education, such as training delivered via Internet and e-mail, the University of Pittsburgh Internal Medicine Residency Program developed an SDoH Fast Fact introductory curriculum that followed similar models. The curriculum delivered the SDoH Fast Facts during a 4-week ambulatory rotation to 44 categorical PGY-1 residents using an interactive small group session combined with spaced, electronic learning through emailed SDoH Fast Facts. In the first week, a one-hour small group session, facilitated by a chief resident, introduced the definition and framework of SDoH and coached interns to recognize clinical “triggers” that should prompt them to further inquire about the SDoH. Participants brainstormed ways physicians can intervene on SDoH and were then encouraged to apply this knowledge in their clinical encounters throughout the ambulatory block. Interns were later e-mailed a summary handout

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of the one-hour session and a total of 12 SDoH Fast Facts, delivered in batches of 3-4 facts per e-mail, one e-mail per week. Interns were asked to read the clinical vignette, choose the best answer to the multiple choice question in the electronic platform, and review the take home points associated with each Fast Fact. In the fourth week, interns participated in a 30-minute discussion to reflect on experiences applying lessons learned.

To evaluate the effectiveness of the curriculum in changing interns' attitudes about SDoH, frequency of screening and comfort intervening on SDoH, pre-, immediate post- and delayed post- surveys were conducted and compared to 38 categorical PGY-2 residents who did not receive the curriculum. Of the 44 interns who received the curriculum, 33 (75%) completed the pre- and post-survey, while only 15 (34.1%) completed all three surveys; further, 32 out of 45 (71%) PGY-2 residents in the historical control group completed the survey.

Baseline comparison showed that the intervention group was similar to the historical control group in regard to self-reported attitudes, behaviors, and comfort in addressing SDoH except that the interns agreed more often that physicians should understand *how* SDoH impact health. There were several similarities across groups. Residents reported that SDoH are important to patients' health and it is the responsibility of physicians to identify and address SDoH. They asked patients more often about tobacco, alcohol, and drug use compared to housing, education, and social support. They were also more comfortable addressing chronic disease and health-related behaviors than SDoH such as low educational attainment, housing instability, and lack of transportation. In addition, they reported that faculty did not often prompt them to think about SDoH when precepting in clinic

and rarely did they research evidence-based SDoH interventions.

PGY-1 residents who participated in the curriculum were more likely to agree with the statements, "Physicians have a responsibility to ask about SDoH in clinical encounters with patients," and "physicians can improve health by intervening on the SDoH in clinical settings." They also reported that they were more likely to ask patients about social support and reported greater comfort intervening on social isolation after participation in the curriculum. Unfortunately, the curriculum did not improve how often trainees reported asking about other SDoH such as education, employment, and housing. Similarly, there was no change in comfort with intervening on other social determinant of health. All residents reported infrequent teaching on SDoH concepts during precepting encounters in clinic and this did not change over the course of the curricular intervention. Despite having a focus on evidence-based SDoH interventions, the Fast Fact did not improve interns' likelihood of looking up SDoH evidence. Nonetheless, a majority felt that the SDoH Fast Facts were an effective way to teach SDoH and influenced them to ask patients about SDoH that may be affecting their health.

Our curricular intervention served as an introduction to SDoH and sought to peak interns' interest in asking about, intervening on and researching evidence on the social determinants of health impacting their patients through use of the SDoH Fast Facts. The results showed that the curriculum had an impact in changing participants' global attitudes regarding the physician's role in addressing SDoH; but, it had minimal impact in changing behavior with regard to individual SDoH. While there is more work to do in coaching our learners to take an expanded social history beyond the traditional "Tobacco/ETOH/Drug

Use" history, there was a sustained impact on asking and addressing social isolation. This was believed to have occurred because the case included in the introductory session focused on social isolation and the Fast Facts also included two cases involving social isolation. Social isolation therefore had a greater focus in our curriculum compared to other SDoH. Given the introductory nature of the curriculum, we were impressed that residents reported a consistent improvement in this domain. In addition to strengthening SDoH education for trainees, the evaluation revealed that faculty development is key especially in prompting trainees to regularly identify SDoH impacting patients, understand the evidence-based interventions, and use community resources available to intervene on SDoH in both ambulatory and inpatient settings.

This evaluation of the SDoH Fast Facts introductory curriculum showed that a brief curricular intervention can increase resident screening for social needs in the clinical setting. However, a ceiling effect was a primary limitation as interns at baseline already thought that addressing SDoH is important, thus our ability to detect improvement in attitudes was restrained.

Despite limitations, we have shown that internal medicine trainees value the teaching of SDoH when small group discussion is paired with spaced-electronic learning in the ambulatory setting with minimal faculty and curricular time. The SDoH Fast Facts are therefore a low-cost and effective tool that can be used by undergraduate or graduate medical education programs looking to begin SDoH education. An important next step to is to link broad-based longitudinal curricular interventions with robust clinical resources so that trainees not only identify and address the breadth of SDoH, but also improve patient outcomes.

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MORNING REPORT

IN SERVICE OF PATIENTS AND THEIR ANIMAL COMPANIONS: SERVICE ANIMALS IN THE HOSPITAL

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Case Summary

Mr. S, a 39-year-old homeless man, presented to the ED with two months of progressive abdominal pain. His medical history included poorly controlled HIV, severe post-traumatic stress disorder (PTSD), and testicular cancer. Eight months prior to this presentation, the patient underwent a right-sided orchiectomy with expectation of further treatment for curative intent; however, the patient left the hospital against medical advice before his team could enact this plan.

Before entering the patient's room, the physician was notified by ED staff that the patient was accompanied by a dog. The patient explained that the dog, which had accompanied him continuously for six years, helped him manage his PTSD. Per the patient, the hospital's inability to accommodate his service animal prompted him to leave against medical advice eight months prior. He avoided clinical settings ever since until the pain became too severe to manage.

In the ED, the patient underwent a CT of the abdomen and pelvis that demonstrated densely matted retroperitoneal lymph nodes concerning for metastatic testicular cancer. Serum biomarkers returned positive for beta HCG and AFP, both indicators of advanced disease. The patient was admitted to medicine for expedited workup and management of progressive testicular cancer. However, Mr. S's main concern was whether his dog could stay with him. Though he could not provide vaccination records or documentation status for the service animal, the medical team obtained these documents by

contacting Animal Care & Control (ACC). Furthermore, hospital policy required the patient to arrange for the dog to be boarded by a local shelter or to identify a person who could stay in the hospital to independently feed, exercise, and toilet the animal. Hospital staff were not permitted to aid in these activities.

Mr. S declined to board his animal due to the inability to afford the costs and distrust that his animal would be returned. The medical team reached out to all known contacts via phone calls and coordination with the Homeless Outreach Team (HOT). However, after 24 hours, no one had volunteered to care for the animal while Mr. S was in the hospital, reflecting the patient's social isolation. Utterly frustrated by the experience, the patient left the hospital against medical advice again, without a treatment plan in place.

Social Determinants of Health: Service Animals as Partners in Care

Social determinants of health are often the most important factor in dictating health outcomes in vulnerable patient populations. This case demonstrates how Mr. S's reliance on a service animal for emotional support and treatment of PTSD, combined with social isolation, led to the progression of localized testicular cancer to metastatic disease. Just as hospitals invest in care plans for patients with specialized needs, such as medical interpreters for language discordant provider relationships or mobility services, hospitals should invest in solutions to care for patients with service animals.

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Numerous qualitative and quantitative studies over the past decades tout the mental and physical benefits of service animals and pets to their handlers. Emotional benefits include reduced social isolation and anxiety, and improved self-esteem and mood.¹ Pets have been associated with reduced cholesterol levels, mean arterial blood pressure, and cardiovascular disease.² The effect of service animals in veterans with PTSD includes increased quality of life and decreased psychiatric symptom scores.^{3,4} Though there are few studies of the benefits of service animals on civilians with PTSD, these results can reasonably be extrapolated. People experiencing homelessness often suffer from social isolation and loneliness, and many have histories of physical and emotional abuse resulting in severe PTSD.

For those who cannot depend on other human beings for support, service animals provide invaluable companionship. The threat of separation from a trusted companion may supersede other health concerns. Ensuring accommodations of service animals for hospitalized patients may improve health outcomes, providing a sense of safety in a foreign environment, and maintaining bonds of trust between patients and providers. Mr. S reported fear of sleeping alone in the hospital, fearing flashbacks to his trauma, exacerbated by the added stress of a cancer diagnosis.

Barriers to accommodating service animals in hospitals are significant. Hospitals must prioritize the health and safety of their employees, and ensure the presence of a service animal does not prevent the provision of necessary care. Requiring documentation of service animal and vaccination status is vital, but these requirements should not interfere with a patient's right to remain close to his or her service animal.

One possible solution is assigning one staff member, such as a patient care assistant (PCA), to care

for a patient's service animal. We assign PCAs to perform one-on-one observation for patients with dementia and a similar system could be employed for patients with service animals who require additional support. Alternatively, hospitals could utilize volunteers from local shelters to walk and feed patients' animals during the day. Lastly, if patients are willing to board service animals at local shelters, volunteers could bring patients' service animals for daily visits to lessen the toll of separation. Further discussion among hospital leadership, patients, and advocacy groups is needed to develop a sustainable solution to care for patients and their service animals.

Clinical Implications

1. *Educate physicians and health-care practitioners about the emotional benefits of service animals on their handlers.* Hospital staff who do not have personal experience with service animals may be unaware of the evidence base supporting their use, specifically for patients with social isolation and PTSD, which includes many patients experiencing homelessness. Hospital staff should understand that perceived threats to the service animal may damage the therapeutic relationship and negatively impact patients' willingness to engage with the healthcare system.
2. *Recognize patients with service animals as a population with special care needs and considerations.* Just as patients with dementia may require increased nursing ratios, patients with service animals can be viewed as having a legitimate specialized need that requires accommodation. The presence of the animal should not be viewed as inconvenient, just as arranging a wheelchair van for a patient with mobility limitations is not

viewed this way.

3. *Establish clear hospital guidelines for inpatient and outpatient management of service animals.* Much of Mr. S's frustration stemmed from receiving inconsistent information from hospital staff regarding requirements for his service animal during hospitalization. The United States Department of Health and Human Services provides a guide to accommodating service animals in healthcare facilities.⁵ Having clear protocols regarding service animals and communicating them consistently to patients may improve trust of the healthcare system and reduce administrative burden on staff members, allowing them to focus on clinical care.

Case Follow-up

After the patient left against medical advice, his primary care doctor coordinated with the urologic oncology service to develop a care plan for the patient. Prior to hospitalization, his case manager arranged for members of the patient's outpatient care team, whom the patient trusted, to care for his service animal while the patient was hospitalized. Thanks to the dedication of his care team, he agreed to re-hospitalization and was subsequently initiated on chemotherapy with cisplatin and etoposide. His outpatient care team developed a care plan for the patient's service animal during his multiple cycles of chemotherapy. At the time of publication of this article, the patient had completed his fourth and last cycle of chemotherapy and his prognosis for remission was >90% per his oncologist.

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PERSPECTIVE: PART II

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LETTER TO THE EDITOR/RESPONSE

FROM THE EDITOR (continued from page 1)

determinants of health, the theme of this month's *Forum* issue, and the upcoming SGIM National Meeting in Birmingham, Alabama. Photos of immigrants who don't know the language of their new country, who I know faced discrimination, worked hazardous jobs under poor conditions, smoked, lived in substandard housing, and lacked access to affordable health care. These photos were taken at a time when the effects of the social determinants of health were not as well appreciated and the resources to combat those effects

scarce or non-existent. They were also taken at a time when the United States was a land of opportunity and people from another country could come and improve their lives. It is imperative that we as providers became familiar with the social determinants and how to intervene.

This month's *Forum* features articles on the social determinants. Dr. DeSalvo continues her series by celebrating the people of SGIM. In the domain of medical education, Dr. Cacace tells us how to incorporate into our clinic precepting

and Dr. Agonofor and colleagues share their experience on how to get our learners to act on them. Our Morning Report from Dr. Holtzman touches on an aspect of social determinants as well. These should get you in the right mind set for Birmingham next month. In addition, we also include an update on E/M coding from Drs. Goodson and Miller, learn about knowledge and attitudes around marijuana by Drs. Knapp and Jindall.

See you next month!

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RESEARCH (continued from page 2)

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MEDICAL EDUCATION
