

FROM THE EDITOR

Dear Readers:

Karen R. Horowitz, MD, FACP

Editor in Chief, SGIM Forum

CONTENTS

1. From the Editor	1
2. Health Policy Corner	2
3. President's Column	3
4. Best Practices	4
5. Perspective	5
6. From the Regions	6
7. Morning Report	7
8. Educators' Corner	8

As my term as editor comes to an end, I wish to express my appreciation for those whose contributions to *Forum* have led to our success over the past three years.

I have felt a great responsibility to SGIM and its membership to make *Forum* the voice of GIM—to present a vision that demonstrates our ongoing commitment to excellence in patient centered care. Our society members are champion medical educators, scientists, researchers, practitioners, and leaders whose academic rigor and dedication to the next generations of GIM are present in everything we do.

It has been my priority to present the broadest possible spectrum of interests pertinent to SGIM members. The outstanding editorial board members have worked tirelessly with me to make *Forum* a vehicle for expression of diverse voices within our society and to promote the inclusion of young members and new writers. We have built on the tradition of themed issues begun by my predecessor, Priya Radhakrishnan, and are proud to have produced timely special issues that build on the social justice agenda that has been the tradition of our society.

I would like to especially thank Francine Jetton, SGIM Director of Communications, who contributes her support, insight, wisdom, and professionalism to all of the publications of the Society; and Kay Ovington, SGIM Chief Operating Officer, for her ongoing leadership. I have been honored to work closely with SGIM Presidents Eric Bass, Bill Moran, Marshall Chin, Eileen Reynolds, and Tom Gallagher, and have been inspired by the extraordinary level of dedication and commitment each has brought to the task.

I leave *Forum* in the capable hands of Joseph Conigliaro, MD, MPH, FACP who is Chief, Division of General Internal Medicine, North Shore University Hospital-Long Island Jewish Medical Center, and Professor of Medicine at Hofstra Northwell School of Medicine. Joe has already contributed his enthusiasm, collegiality, and leadership to the SGIM Communications Committee and I am sure will do the same for *Forum*. He will continue to work with Frank Darmstadt, our experienced managing editor.

I will continue to serve SGIM as a participant in the LEAHP program and as a new member of the Health Policy Committee. I look forward to collaborating with many SGIM members in this new role.

The Fundamental Problem with the American Health Care Act

Marshall H. Chin, MD, MPH

Dr. Chin (mchin@medicine.bsd.uchicago.edu) is the Richard Parrillo Family Professor of Healthcare Ethics in the Department of Medicine at the University of Chicago, director of the Robert Wood Johnson Foundation Finding Answers: Solving Disparities Through Payment and Delivery System Reform Program Office, and a former president of SGIM. The views expressed here do not necessarily reflect the views of the University of Chicago, Robert Wood Johnson Foundation, or the Society of General Internal Medicine.

This article originally appeared in KevinMD on March 15, 2017, and is re-published with permission (<http://www.kevinmd.com/blog/2017/03/fundamental-problem-american-health-care-act.html>).

SOCIETY OF GENERAL INTERNAL MEDICINE

OFFICERS

President

Thomas H. Gallagher, MD Seattle, WA
thomasg@uw.edu

Immediate Past-President

Eileen E. Reynolds, MD Boston, MA
ereynolds@bidmc.harvard.edu

President-Elect

Giselle Corbie-Smith, MD, MSC Chapel Hill, NC
gcorbie@med.unc.edu

Treasurer

David C. Dugdale, MD Seattle, WA
dugdaled@uw.edu

Treasurer-Elect

Mark D. Schwartz, MD New York, NY
mark.schwartz@nyumc.org

Secretary

Somnath Saha, MD, MPH Portland, OR
sahas@ohsu.edu

COUNCIL

Eva Aagaard, MD Aurora, CO
eva.aagaard@ucdenver.edu

Jada C. Bussey-Jones, MD Atlanta, GA
jcbusse@emory.edu

April S. Fitzgerald, MD Baltimore, MD
Afitzg10@jhmi.edu

Eboni G. Price-Haywood, MD, MPH New Orleans, LA
eboni.pricehaywood@ochsner.org

Luci K. Leykum, MD, MBA, MSc San Antonio, TX
leykum@uthscsa.edu

Monica E. Peek, MD, MPH, MSc, FACP Chicago, IL
mpeek@medicine.bsd.uchicago.edu

Health Policy Consultant

Lyle Dennis Washington, DC
ldennis@dc-crd.com

Director of Communications and Publications

Francine Jetton, MA Alexandria, VA
jettonf@sgim.org
(202) 887-5150

As the Immediate Past-President of the Society of General Internal Medicine (SGIM), the major professional association of academic general internists, I participated in SGIM's Hill Day on March 8, 2017. Hill Day is when an organization mobilizes its members to visit the offices of Senators and Congresspersons on Capitol Hill in Washington, D.C. to discuss key issues. Coincidentally, March 8 was also the day two House Committees began deliberations on the American Health Care Act (AHCA),¹ and the day the American Medical Association (AMA) publicly voiced strong opposition to the proposed legislation.² SGIM focused its Hill Day efforts on educating legislators about key principles for health care reform, as well as advocacy for evidence-based primary care reimbursement fee schedules, and funding for health services research and primary care training.³

I have now participated in four Hill Days, visiting both Democratic and

Republican legislators, including those from very liberal and very conservative districts and states. There's heterogeneity between and within parties. Some legislative staff are literally brand new to health policy. Others have deep expertise and understanding of issues. No one party has a monopoly on competence and quality. One of the most impressive legislative staff I've met was a Republican committee staffer. She was smart, knowledgeable, pragmatic, and transparent. One of my biggest disappointments has been one of Illinois' Democratic Congressmen who has been extremely difficult to reach. Three out of four Hill Day visits no staff person from his office was available to meet with me, highly unusual in the experience of SGIM members participating in Hill Day.

I have grave concerns with the current version of the AHCA.⁴ The most vulnerable Americans are at highest risk for not being able to afford health insurance and losing access to care. Older persons not yet eligible for Medicare, the poor, and people with multiple chronic medical conditions are at highest risk of losing insurance. The proposed tax credits are insufficient to make health insurance affordable for many of the poor, premiums for the chronically ill on the health exchanges would likely rise significantly, and per capita Medicaid block grants to states would probably result in major cuts to health care funding for the underserved and cannibalization of funds for non-health purposes such as closing state budgetary

EX OFFICIO COUNCIL MEMBERS

Chair of the Board of Regional Leaders

Bennett B. Lee, MD, MPH Richmond, VA
bennett.lee@vcuhealth.org

ACLGIM President

Laurence F. McMahon, MD, MPH Ann Arbor, MI
lmcmahon@umich.edu

Associate Member Representative

Madeline R. Sterling, MD, MPH New York, NY
mrs9012@nyp.org

Co-Editors, *Journal of General Internal Medicine*

Mitchell D. Feldman, MD, MPhil San Francisco, CA
mfeldman@medicine.ucsf.edu

Richard Kravitz, MD, MSPH Sacramento, CA
rlkravitz@ucdavis.edu

Editor, *SGIM Forum*

Joseph Conigliaro, MD, MPH New York, NY
sgimforum2017@gmail.com

Interim Executive Director

Kay Ovington Alexandria, VA
ovingtonk@sgim.org

A New Core Competency for Academic General Internists

Thomas H. Gallagher, MD, and
Thomas Payne, MD

Dr. Gallagher (thomasg@uw.edu) is president of SGIM. Dr. Payne (tpayne@uw.edu) is a general internist and professor of medicine at the University of Washington, where he is medical director of IT services. He is board chair for the American Medical Informatics Association.



Dr. Gallagher (left). Dr. Payne (right).

Mastering a set of basic core competencies in informatics, along with health information technology, will be essential as academic general internists seek to survive, thrive and innovate in this new healthcare delivery environment.

When faced with a difficult-to-use electronic health record, a complex physician order entry system, or an endless stream of email queries from patients, it is easy for physicians to long for a not-so-distant past when patient care seemed much simpler, and revolved around a physical, paper chart with thoughtful notes written with fountain pens. No change in medicine over the last 30 years has been as dramatic as the computerization of health care, or, as one commentator wrote, the evolution from “bedside” to “desktop” medicine.¹ As physicians, our relationship with computers is complex. Yet, amidst the complaining, we missed the fact that a new core competency has emerged for academic general internists, one that will be the theme for the 2018 Annual Meeting. Mastering a set of basic core competencies in the field of informatics, along with related knowledge in health information technology, will be essential as academic general internists seek not only to survive but also to thrive and innovate in this new healthcare delivery environment, especially as we try to improve the value of care.

Biomedical informatics (BMI) is the interdisciplinary field that studies and pursues the effective uses of biomedical data, information, and knowledge for scientific inquiry,

problem solving, and decision making, motivated by efforts to improve human health.² Biomedical informatics, along with the health information technology that provides much of these data and related information, seeks to address a fundamental problem. For much of the history of medicine, the amount of information physicians needed to collect and consider when making a patient care decision was limited to what could be gleaned from the patient’s history, physical exam, and simple testing. However, today’s clinicians are faced with an avalanche of available facts and other information surrounding their clinical decisions, which far exceeds human cognitive capacity.³ While a relatively modest number of physicians will seek specialized training in biomedical informatics and subspecialty certification,⁴ every SGIM member would benefit from acquiring some basic informatics fundamentals to support their clinical care, research, and educational activities.

A publication earlier this year in the *Journal of the American Medical Informatics Association* paints a compelling picture of a typical patient, provider, and researcher experience “in the not too distant future.”⁵ The patient schedules an appointment with her primary care provider online and easily accesses

SGIM Forum

EDITOR IN CHIEF

Karen R. Horowitz, MD

editor.sgimforum@gmail.com

MANAGING EDITOR

Frank Darmstadt

frank.darmstadt@ymail.com

EDITORIAL BOARD

Seki Balogun, MD, MBBS, FACP

sab2s@virginia.edu

Alfred P. Burger, MD

aburger.md@gmail.com

Amanda Clark, MD

amandavclark@gmail.com

Utibe Essien, MD

uessien@partners.org

Michele Fang, MD

michele-fang@uiowa.edu

Maria Gaby Frank, MD

maria.frank@dhha.org

Kittu Garg, MD

jindal.kittu@gmail.com

Shanu Gupta, MD

Shanu_Gupta@rush.edu

Patricia Harris, MD, MPH

pharris@mednet.ucla.edu

Jeffrey Jaeger, MD

jeffrey.jaeger@uphs.upenn.edu

Francine Jetton, MA

jettonf@sgim.org

Farah Kaikow, MD, MPP

fkaikow@tulane.edu

Ben I. Mba, MD

benjamin_mba@rush.edu

Somnath Mookherjee, MD

smookh@u.washington.edu

Attila Nemeth, Jr., MD

Attila.Nemeth@va.gov

Avital O’Glasser, MD

avitaloglasser@gmail.com

Clifford D. Packer, MD

clifford.d.packer@gmail.com

Tanu Pandey, MD, MPH

tanumd@gmail.com

Archana Radhakrishnan, MD

aradhak3@jhu.edu

Shobha Rao, MD

shobha_rao@rush.edu

Heather Sateia, MD

hsateia1@jhmi.edu

Gaetan Sgro, MD

gaetan.sgro@va.gov

Leigh H. Simmons, MD

lhsimmons@partners.org

Kevin R. Smith, MD

kevin.smith78@gmail.com

Gopal Yadavalli, MD

gopal.yadavalli@bmc.org

Steven Yale, MD, FACP

steven.yale.md@gmail.com

The *SGIM Forum* is a monthly publication of the Society of General Internal Medicine. The mission of The *SGIM 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 Managing Editor, Editor, or Editorial Board with comments, ideas, controversies, or potential articles. This news magazine is published by Springer. The *SGIM Forum* template was created by Phuong Nguyen (ptnnguyen@gmail.com).

and transfers records from her previous provider prior to the scheduled visit. The patient electronically updates her medication list and other pertinent past information and completes an online health risk assessment that flags the issues she wants to discuss with the provider. Immediately after the visit, the patient meets with the patient navigator who, among other things, seeks permission from the patient to store her health information and residual blood for researchers.

Prior to the visit, the physician accesses critical test results and reports, relevant biomedical literature, and all patient information provided by the patient and previous

continued on page 10

Supporting Medication Adherence for HIV Preexposure Prophylaxis (PrEP)

Dawn K. Smith, MD, MS, MPH

Dr. Smith (dsmith1@cdc.gov) is the biomedical interventions activity lead in the Epidemiology Branch of the Division of HIV/AIDS Prevention (DHAP), National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Centers for Disease Control and Prevention (CDC).

Preexposure Prophylaxis (PrEP) and Primary Care

The prescription of safe and highly effective once-daily oral medication (Truvada[®]) is becoming a common primary care intervention to prevent the acquisition of HIV. FDA approval of an indication for PrEP medication and CDC clinical practice guidelines for its use are based on results of randomized, placebo-controlled clinical trials. These trials have demonstrated substantial reductions in HIV incidence among persons at ongoing risk of sexual or injection HIV exposure who took PrEP compared to those who did not.

Given the effectiveness of PrEP and its potential to curb HIV infection rates, primary care physicians have an essential role to play in identifying patients with indications for PrEP and ensuring medication adherence.

Primary Care Providers Play a Key Role in Patient Selection

CDC estimates that 1.2 million adults in the United States are at substantial risk for acquiring HIV infection, including men who have sex with men (MSM), heterosexual adults, and people who inject drugs. Primary care providers are optimally positioned to identify sexually active adult patients without HIV infection who have indications for PrEP, as described in the above table.

Efficacy Is Closely Tied to Adherence

When HIV infections occur in patients taking PrEP, almost all have been in persons not taking the medication as prescribed. In every clinical trial, as well as in the open-label and observational studies that followed, no infections were seen among persons with high drug levels consistent

Indications for PrEP	
Sexually Active, HIV-negative Adults Who Report in the Past 6 Months:	HIV-negative Adults Who Have Ever Injected Drugs and Who Report in the Past 6 Months:
<ul style="list-style-type: none"> • Having 2 or more sex partners • Inconsistent or no condom use • Having 1 or more HIV-positive sex partners • A syphilis or gonorrhea diagnosis* • Engaging in commercial sex work 	<ul style="list-style-type: none"> • Injecting drugs not prescribed for them • Sharing needles or injection equipment • Behaviors that place them at substantial risk for sexual exposure to HIV
<ul style="list-style-type: none"> • (For women) Having a male sex partner who also has sex with men or is an injection drug user 	
<ul style="list-style-type: none"> • Any HIV-uninfected person with an HIV-positive sex partner considering pregnancy 	

* *rectal chlamydia in an MSM*

with taking drug regularly (four or more doses per week). A dose response effect was apparent, with the most infections occurring in those with no drug detected, and a few infections in those with some drug but less than the amount associated with taking ≥ 4 doses per week.

Observational studies have shown that protective levels of adherence are achievable in usual clinical practice settings. However, as with other conditions, medication adherence for young adults appears to be a particular challenge. This is especially unfortunate because CDC estimates that the lifetime risk of being diagnosed with HIV infection is 1 in 2 for young African-American MSM and 1 in 4 for young Hispanic MSM.

Basic Adherence Guidelines for All Medications

When prescribing PrEP, we are reminded of the words of the Surgeon General in the earliest days of the HIV epidemic, C Everett Koop, "Drugs don't work in patients who don't take them." Reinforcing medication adherence is an issue that pri-

mary care clinicians face daily with a range of patient conditions. The following basic tools are familiar:

- Give clear instructions to the patient about the medication, what it is for, how it is to be taken (daily), what to do if a dose is missed (do not double-up);
- Discuss what side effects are/are not likely and how to handle them if they occur;
- Discuss possible issues with taking pills, remembering doses, traveling;
- Offer ideas for dealing with any issues (pill boxes, phone app reminders, family/friend support); and
- Ask the patient to commit to a plan he is comfortable with.

Specific Adherence Counseling Points for PrEP:

- Advise that most patients experience no side effects while taking PrEP (Truvada);
- Inform that 5-10% have a "start-up" syndrome of headache, mild

continued on page 12

The HIV Care Continuum in Atlanta: A Medical Student's Unique Perspective

Joseph Sharp and Jonathan Colasanti MD, MSCR

Mr. Sharp (joseph.sharp@emory.edu) is a third-year medical student at Emory University School of Medicine and is referred to in the first person ("I") in the article. Dr. Colasanti (jonathan.colasanti@emory.edu) is an assistant professor of medicine and public health at Emory University and is the associate medical director of the Ponce de Leon Center, Infectious Disease Program of the Grady Health System.

Acknowledgements: Thank you to the patients who allowed me to share in their experience. Thank you to Ossie Williams and Adam Barnette for sharing their wisdom gained from years of working in the field.

As a member of the newest generation of physicians in training, I was born after the panicked days in the early 1980s when a new disease was killing young men in Los Angeles and New York.¹ By the time I was born, more than 20 million people worldwide had already contracted the virus now known as human immunodeficiency virus (HIV). HIV has since evolved from a death sentence into a manageable chronic condition which, when treated, has little effect on lifespan.² Despite this biomedical success, we face an implementation gap between our current knowledge and effective care delivery, especially among vulnerable populations. This gap is created by upstream social determinants and structural barriers to care, extending far beyond the clinician's exam room.

In recognition of the importance of the entire process of care, the United States National HIV/AIDS Strategy (NHAS) prioritizes the Care Continuum Initiative.³ Testing, linkage to care, retention, and chronic disease management all require community engagement. Yet traditional medical education provides few opportunities to interact with patients outside of the formal healthcare system. Therefore, as a second-year medical student I created a multidisciplinary elective in order to experience each step of the HIV care

continuum in Atlanta, Georgia.

The goals of the elective were threefold: 1. Experience the care continuum from the perspective of an Atlantan newly diagnosed with HIV; 2. Understand the social and economic factors that perpetuate the HIV epidemic in Atlanta; and 3. Propose novel solutions to improving the care continuum.

These goals were achieved by engaging in the healthcare system at various points along the care continuum, beginning with testing and linkage. An estimated 19 percent of Georgians living with HIV are unaware of their status and while an opt-out HIV testing program at Grady Memorial Hospital (GMH) has increased the number of HIV screenings and disclosures made, a positive test is only the beginning of the journey to viral suppression.⁴ In the GMH emergency department (ED), social workers (SWs) are responsible for counseling and informing patients of a new diagnosis then linking them to care. Early one morning, the SWs were busy tracking down two patients who tested positive the night before but were discharged prior to business hours. In that moment, as calls to the patients rang unanswered, viral suppression still felt like a world away, reaffirming the barriers to linkage reported domestically and abroad: homeless-

ness, substance use, stigma, denial, misinformation, and limited access to transportation.^{5,6}

After diagnosis and disclosure, the ED social worker provides linkage services to area clinics, principally the Grady Infectious Disease Program (IDP). IDP is a large, Ryan White-funded HIV/AIDS Program serving more than 5,800 underserved and economically disenfranchised patients. I walked through the enrollment process with new patients and quickly learned that physically transitioning from testing site to the HIV clinic does not equate to receiving HIV care. Enrollment involves hours of intake assessments, financial counseling meetings, HIV education classes, and an initial nursing assessment before a provider visit is scheduled. As a medical student, I would traditionally only see the patient after he/she has successfully navigated this process. Now, I have a greater appreciation of the time and effort required to enroll in care. This better equips me to advocate on my patients' behalf, identify barriers, and work toward personalized solutions.

While I was born after the early days of the epidemic, the experience rounding with the inpatient HIV service at GMH is reminiscent of wards in the 1980s, busy with opportunistic infections and AIDS-related malignancies that now represent a failure of the care continuum rather than the end result of untreatable disease.⁷ Ironically, my preclinical education and boards review had prepared me only for this part of the experience. Rather than discussing primary or

continued on page 13

... we must advocate for models of compassionate care that fit our patients' lives ...

#SGIMNW17—Updates from the Northwest Regional SGIM Meeting, February 3, 2017: Joy, Fulfillment, Advocacy, and, Once Again, Tweeting

Avital Y. O'Glasser, MD, FACP; Somnath Mookherjee, MD; Chris Wong, MD

Dr. O'Glasser (oglassea@ohsu.edu, @aoglasser) is an assistant professor of medicine and hospitalist at Oregon Health & Science University. She is also the Assistant Program Director for Social Media and Scholarship for OHSU's internal medicine residency program. Dr. Mookherjee (smookh@u.washington.edu) is assistant professor, Division of General Internal Medicine, University of Washington. Dr. Wong (cjwong@uw.edu) is associate professor, Division of General Internal Medicine, University of Washington.

On February 3, 2017, more than 120 enthusiastic Pacific Northwest SGIM constituents came together in Portland, Oregon, for another successful annual meeting, anchored on the theme of "Joy & Fulfillment in Practice: Finding Meaning in General Internal Medicine," complementing the theme of this year's National SGIM meeting. Typical for an SGIM meeting, the majority of attendees also contributed either as plenary speakers, poster presenters, workshop organizers, or volunteers.

Cochairs Magni Hamso, MD and Avital O'Glasser, MD, opened the meeting by observing that wellness and joy in practice are not just about achieving work-life balance, but that it is equally important to create joy, fulfillment, and meaning *through* one's day-to-day work. Since part of finding joy and meaning is connecting with colleagues new and old, this year's planning committee incorporated feedback from prior years by including more networking time, through an extended lunch period with themed tables as well as additional breaks to facilitate informal conversation.

Stephen Bezruchka, MD, MPH, of the Departments of Health Service and Global Health at the University of Washington School of Public Health, delivered the invited keynote speech, "How Internists Can Find Meaning in Becoming Population Health Practitioners." Dr. Bezruchka challenged the audience to ask themselves "How healthy are we?" He then presented a comparison of the quality of U.S. health care with other nations. Our poor standing in these "Health Olympics" was surprising to most. Dr. Bezruchka went

on to highlight the crucial role of inequality in creating poor health, demonstrating how health and social problems are worse in more unequal countries. He asked the audience "How would you characterize your sickest patient and those for whom treatments are the least effective?" Common characteristics were a lack of social support, mental health disorders, and homelessness. This simple exercise established the importance of social determinants of health and illustrated that much more is needed than simply providing more *health care* in order to improve *health*. Dr. Bezruchka left the audience with a clearer understanding of the intersection between health policy and population health. He encouraged physicians to interview patients through a lens of social determinants of health and to become active in their communities.

Adam Obley, MD (Oregon Health & Science University, Portland VA), and Andrea Christopher, MD, MPH (University of Washington/Boise Internal Medicine Residency Program), provided a highly impactful and interactive update in outpatient medicine. They discussed the latest data for aspirin for primary prevention, active monitoring of prostate cancer, the SPRINT trial, the use of newly approved agents for Type 2 diabetes, and opioid prescribing guidelines. Dr. Courtland Childers, MD (Providence Portland Medical Center), and Dr. Shobha Stack, MD, PhD (UW), provided inpatient updates on the inappropriateness of antipsychotics for inpatient delirium, the distinction between community acquired and healthcare associated pneumonia, post-operative transfusion thresholds,

using direct oral anticoagulants for thromboembolic disease, possible shifts in thresholds for supplemental oxygen, and the risks and benefits of adding oral anticoagulation to dual antiplatelet therapy after percutaneous coronary intervention.

The conference explored the theme of "Joy and Fulfillment in Practice" throughout the day with opportunities to learn a new set of strategies to tackle perplexing clinical challenges, new communication and feedback techniques for working within teams, and methods to exercise one's voice through advocacy. The invited workshop, "Blazing a Trail to Resilience: Personal Strategies to Promote Bounce," was led by Andrea Cedfeldt, MD (Oregon Health & Science University / Portland VA) and Kellie Littlefield, DO (Chief Resident, Oregon Health & Science University). Participants left with personal action plans to foster resilience in themselves and others. Other workshops provided strategies for high quality reviewing for journals, an interdisciplinary approach to non-specific low back pain, and novel, evidenced-based feedback models.

The authors of the three top rated abstracts gave excellent plenary presentations: Nauszley Abedini, MD (University of Washington, Internal Medicine Residency Program), presented her research on internal medicine resident burnout in which she demonstrated that loss of meaning in medicine is associated with burnout—a finding that highlighted the importance of the meeting theme. William Weppner, MD (University of Washington, Boise VA),

continued on page 14

The Way to a Man's Heart Is through His Stomach

Di Ma, MD, and Shanu Gupta, MD, FACP

Dr. Ma (Di_Ma@rush.edu) is a second-year internal medicine resident at Rush University Medical Center. Dr. Gupta (shanu_gupta@rush.edu) is an assistant professor and the director of education in the division of hospital medicine at Rush University Medical Center, Chicago, Illinois.

Case:

A 55-year-old Hispanic man with obesity presented to the emergency department with chest pain and shortness of breath for the past month which worsened in the last two days. He described the chest pain as intermittent, sharp, substernal, and non-radiating. It increased with exertion and was associated with shortness of breath. He denied other symptoms, including fevers, chills, abdominal pain, diarrhea, constipation, blood in urine, or stool. He had smoked cigarettes for the last 20 years, consumed alcohol rarely, and had not used recreational drugs. Regarding preventive care, he had never had a colonoscopy in the past. He was married and lived at home with his wife. Family history was negative for hypertension, diabetes, cardiac disease, or autoimmune disease.

The clinical evaluation of chest pain involves careful history-taking and physical exam, as causes for chest pain range from benign to life-threatening. This patient's presentation of typical chest pain and longstanding history of tobacco use place him at a greater risk for having underlying coronary artery disease and therefore next steps should include EKG and cardiac enzymes.

In the ED, the patient was hemodynamically stable and was in no acute distress. His conjunctivae were normal, neck had a normal-sized thyroid, and no jugular venous distension. His cardiac exam revealed regular rate and rhythm, his skin was without pallor, lesions, or discoloration. His extremities showed no clubbing, cyanosis, or edema. He was neurologically intact, and his rectal exam revealed no blood in the

stool. Initial troponin was 0.12, but EKG showed no new ischemic changes or prior infarcts. Labs were remarkable for Hgb 6.1 g/dL, Hct 23.8%, RBC 3.6 M/uL, MCV 66.1 fL, RDW 22.4%. He was transfused 2 units of packed red blood cells and transferred to the cardiac intensive care unit for further management.

A type II NSTEMI refers to ischemia due to either increased oxygen demand or decreased supply, and may be due to coronary vasospasm, coronary embolism, anemia, arrhythmia, hypertension, or hypotension. Treatment is aimed at treating the underlying cause. In this case, microcytic anemia is the likely cause. Anemia is defined as a reduction in hemoglobin concentration, hematocrit, or red blood cell count. Given the high RDW in this case, an iron panel should be obtained.

His iron level of 10, total iron binding capacity of 448, iron % saturation of 2, and ferritin of 3 were consistent with diagnosis of iron deficiency anemia (IDA).

In males in developed countries, digestive disorders tend to be the most common cause for IDA.

Patient underwent an EGD that showed an 8-mm polypoid lesion with ulcerated center in the mid-gastric body of greater curvature and ileal ulcerations without signs of bleeding. Pathology revealed chronic atrophic (autoimmune type) gastritis (AIG) with focal intestinal metaplasia and well differentiated neuroendocrine or carcinoid tumor. Antiparietal cell and intrinsic factor antibodies were both negative. Colonoscopy revealed grade II internal hemorrhoids.

Although it is often associated with pernicious (macrocytic) anemia, AIG can present with microcytic ane-

mia, as a result of achlorhydria, which impairs iron absorption. Up to 27% of patients with IDA are diagnosed with AIG.⁶ In later stages, patients may develop severe cobalamin deficiency leading to neurological symptoms and atrophic glossitis. Approximately 5% of patients with AIG will develop a gastric carcinoid tumor.⁷

A review of records showed that the patient had a hemoglobin of 12.7 and MCV of 106.9 two years prior during an overnight admission for evaluation of syncope. On this admission, folate level was normal but vitamin B12 was <109 (ref range 210-910) and TSH was 19.015.

Although free T4 and antithyroid antibodies were not collected in this patient, in a person with an autoimmune-mediated disease process living in the United States with sufficient dietary iodine, autoimmune thyroiditis was most likely the cause of his elevated TSH. Fifteen percent of patients with autoimmune thyroid diseases have a concomitant autoimmune disease, most commonly AIG at 39% of cases.² The findings of AIG and autoimmune thyroiditis in this patient suggest an underlying polyglandular autoimmune syndrome (PAS) type IIIB. PAS was first described by Thomas Addison in the 19th century in patients noted to have adrenocortical failure and pernicious anemia. In 1980, Neufeld and Blizzard developed the first classification of PAS: Type I and II. PAS type III was later described which is further subclassified into IIIA, IIIB, and IIIC.⁵ PAS IIIB involves autoimmune thyroiditis and pernicious anemia or AIG.

The prevalence of PAS type III in
continued on page 14

More than Just EBM: Teaching How to Interpret Clinical Guidelines

Christopher Wong, MD; John H. Choe, MD, MPH; Zachary D. Goldberger, MD, MS

Dr. Wong (cjwong@uw.edu) is an associate professor, Division of General Internal Medicine, University of Washington.

Dr. Choe (johnchoe@uw.edu) is an associate professor, Division of General Internal Medicine, University of Washington.

Dr. Goldberger (zgoldber@uw.edu) is an associate professor, Division of Cardiology, University of Washington.

In the 1990s, Evidence-Based Medicine (EBM) emerged as a standard in clinical training, supplanting textbooks and expert reviews which were criticized for their too frequent reliance on an individual author's personal experience and opinion. Nowadays, you can expect your trainees to know the basics of how to interpret a randomized controlled trial (RCT), and many are already capable navigators through other basic methodologies such as meta-analysis. Critically appraising clinical practice *guidelines*, however, is more difficult.

In the typical EBM "pyramid of evidence," expert opinion and case series are considered low levels of evidence while RCTs and systematic reviews reside at the apex. In contrast, clinical practice guidelines occupy a plane of their own outside this construct, a mix of evidence, practicality, science, and judgment. As such, trainees require a different set of skills to deal with them.

The ability to readily interpret clinical practice guidelines is critically important as these directly impact the way we practice at the bedside. Consider the issue of when to recommend lipid-lowering therapy. A glance at the ACC/AHA's 2013 lipid guidelines reveal no fewer than 51 RCTs and meta-analyses supporting their recommendations.¹ Therefore, from a practical standpoint, we must rely on guidelines to some extent—we simply cannot read every RCT and SR that paves the roads of general medicine.

So how do we evaluate the clinical guidelines themselves? Not surprisingly, guidelines about guidelines already exist to support this agenda. The Appraisal of Guidelines, Research, and Evaluation (AGREE) II tool contains 23 items grouped into

6 categories.² These complex tools may seem daunting at first glance, but are certainly worth a read if you want to learn more. You do not need such tools, however, to get started. As a practical approach to teaching about clinical guidelines, here are some questions to ask:

1. What framework did the guideline authors use?

Ideally, clinical practice guidelines should be fully transparent regarding their scope, intent, and methodology. While the methodology section often is included at the beginning of a guideline, it may otherwise be hidden in an appendix or even online. For example, let's look at a few different lipid guidelines: The ACC/AHA's lipid guideline states that "Independent contractors conducted the systematic review" and followed "most" of the Institute of Medicine standards (called "Clinical Guidelines We Trust").³ In contrast, the VA/DoD lipid guideline⁴ and the United Kingdom's NICE guideline⁵ each employed an independent system for guideline creation. Those systems are found in separate documents. While you may not be familiar with these different guideline development processes, you should at least look for evidence that the authors applied a known methodology in development of the guideline.

2. Who wrote the guideline?

This can affect both perspective and bias.

Perspective: Different perspectives may all be valid depending on the situation. For instance, as a non-profit advocacy group, the American Cancer Society often prioritizes cancer screening in individuals while the U.S. Preventive Services Task Force

(USPSTF) as a governmental organization may have another population-based perspective. A specialty group that treats certain cancers may yet have a different point of view.

Bias: Bias is more than a different viewpoint—it renders the recommendations suspect. Look for sources of bias, such as industry or other financial ties that may influence a guideline's recommendations. While transparency is expected in developing clinical guidelines, such disclosures may still be housed deep in an appendix or online. It's worth looking for it.

3. When was the guideline written?

A guideline several years old may still be quite valid—the question is whether any new relevant data has emerged since the last guideline or guideline update. One quick way to address this is to find the guideline reference on PubMed, and then look on the right side of the Web page for similar articles and other articles that reference the guideline—newer guidelines will often appear here. Updated guidelines are often penned by new writing committees from previous editions, thus broadening the perspectives represented.

4. Look at the differences in strength and evidence for individual recommendations within a guideline.

This is a key point, and not always obvious: Not all recommendations within a guideline have the same weight. The major society guidelines usually contain multiple recommendations. Guidelines should use a rubric indicating the strength of each recommendation. Often the strength of the recommendation

continued on page 15

HEALTH POLICY CORNER

continued from page 2

deficits.⁵ Many people would be harmed and would suffer. The Congressional Budget Office estimates that 24 million more Americans would be uninsured by 2026.⁶

When I think about the many smart, thoughtful, well-meaning legislative staff I have met from both parties, I wonder how a significantly flawed bill such as the AHCA could have been crafted with such deleterious effects on the vulnerable. Considering the language the Congressional staff used during our meetings, I've concluded it comes down to a fundamental clash of core values and principles: access to healthcare as a right with the beneficial effects this has for health, the economy, our families and communities, and our vulnerable, versus prioritizing the free market, minimizing the role of government in society, and decreasing growth in government entitlement programs. One reason so many clinicians and organizations such as SGIM oppose the AHCA is that we see the effect of poor access to quality health care on real people.⁷ In fact, seeing this pain and hardship, clinicians ultimately do whatever they can to care for these patients under less than ideal circumstances. We have no choice when we see people suffering. It is a moral imperative for us, as it should be for our society.

I have previously argued that health disparities exist because we as a society tolerate them.⁸ There are thoughtful liberal and conservative approaches to ensuring access to high-quality care.⁹ In fact, I believe we need to do more to create a business case for achieving health equity and to incentivize and support the reduction of disparities.¹⁰ But, the AHCA does not incorporate the most thoughtful, carefully designed approaches. The AHCA tolerates significant health disparities and would make them worse.

At the end of SGIM's Hill Day, as I took the Metro yellow line train to National Airport and flew home to Chicago, I felt optimistic about the democratic process. On one hand,

commentators across the political spectrum have argued we cannot take democratic principles for granted in an era where those in power attack the press,¹¹ attempt to discredit non-partisan analytical groups such as the Congressional Budget Office,¹² and create alternative facts.¹³ These are wise reminders that democracy can be fragile. Especially in our polarized political environment, we need to rely on facts and use evidence in our policymaking.

And yet, I saw March 8, 2017, that democracy in the United States is strong. One of my SGIM colleagues noted that it was remarkable that we as an academic general internal medicine organization, a society that does not provide donations to politicians, had access to key legislators from both parties serving on important Congressional health and appropriations committees. By chance, SGIM Hill Day also happened to be International Women's Day. As I walked across the Capitol grounds moving from the Senate office buildings to those of the House, I saw a rally of women and men dressed in red advocating for women's health on the steps of the Capitol. In the basement cafeteria of the House building, an eclectic *mélange* of advocates mixed and later walked the halls of Congress. I ran into diverse groups including advocates for the disabled moving in wheelchairs and accompanied by guide dogs, bicycle advocates distinguished by their plastic bike pins on their lapels, a group of young advocates seeking to reduce violence, an elevator full of Ukrainian rights advocates, plus my SGIM colleagues. We do have a voice in America. We need to speak out to eliminate health disparities.¹⁴ It's a question of values and priorities. It's why groups such as SGIM,⁷ AMA,² American Hospital Association,¹⁵ and AARP,¹⁶ and I and many others believe that the AHCA in its current form is not in the country's best interest. Many of our most vulnerable neighbors would suffer if it is passed. We can do better as a nation.¹⁷

References

1. The Henry J. Kaiser Family Foundation. Comparing proposals to replace the Affordable Care Act. http://kff.org/interactive/proposals-to-replace-the-affordable-care-act/?gclid=CMP96K-20dICFQGraQodO_oJfQ. Accessed April 25, 2017.
2. Madara JL. American Medical Association letter to congressional leadership on the American Health Care Act. <https://www.ama-assn.org/sites/default/files/media-browser/public/washington/ama-letter-on-ahca.pdf>. Published March 7, 2017. Accessed April 25, 2017.
3. SGIM Hill Day March 7-8, 2017 Leave behind materials. <http://www.sgim.org/communities/advocacy/hill-day>. Accessed April 25, 2017.
4. Jost T. Examining the house Republican ACA repeal and replace legislation. Health affairs blog. <http://healthaffairs.org/blog/2017/03/07/examining-the-house-republican-aca-repeal-and-replace-legislation/>. Published March 7, 2017. Accessed April 25, 2017.
5. Schott L, Floyd I. How states use funds under the TANF block grant. Center on Budget and Policy Priorities. <http://www.cbpp.org/research/family-income-support/how-states-use-funds-under-the-tanf-block-grant>. Published January 5, 2017. Accessed April 25, 2017.
6. Congressional Budget Office. American Health Care Act cost estimate. <https://www.cbo.gov/publication/52486>. Published March 13, 2017. Accessed April 25, 2017.
7. Reynolds E. Society of General Internal Medicine letter to Congressional leadership on the American Health Care Act. <https://tinyurl.com/SGIMAHCA>. Published March 14, 2017. Accessed April 25, 2017.
8. Chin M. Moonshots, opioids, and incentives. The health care blog.

continued on page 10

HEALTH POLICY CORNER

continued from page 9

- <http://thehealthcareblog.com/blog/2016/12/08/moonshots-opioids-and-incentives/>. Published December 8, 2016. Accessed April 25, 2017.
9. Antos J, Capretta J. Republicans should take the time necessary to improve the American Health Care Act. Health affairs blog. <http://healthaffairs.org/blog/2017/03/10/republicans-should-take-the-time-necessary-to-improve-the-american-health-care-act/>. Published March 10, 2017. Accessed April 25, 2017.
 10. Chin MH. Creating the business case for achieving health equity. *J Gen Intern Med*. 2016; 31:792-796.
 11. Brooks D. The enlightenment project. *New York Times*. February 28, 2017:A23. <https://www.nytimes.com/2017/02/28/opinion/the-enlightenment-project.html>. Accessed April 25, 2017.
 12. Lawder D. Trump aides attack agency that will analyze health bill's costs. *Reuters*. <http://www.reuters.com/article/us-usa-obama-care-idUSKBN16J0XH?il=0>. Published March 13, 2017. Accessed April 25, 2017.
 13. Krugman P. Facts are enemies of the people. *New York Times*. March 13, 2017:A23. https://www.nytimes.com/2017/03/13/opinion/facts-are-enemies-of-the-people.html?_r=0. Accessed April 25, 2017.
 14. Chin MH. Movement advocacy, personal relationships, and ending health care disparities. *J Nat Med Assoc*. 2017; 109:33-35.
 15. Pollack RJ. American Hospital Association letter to Congressional leadership on the American Health Care Act. <http://www.aha.org/advocacy-issues/letter/2017/170307-let-aha-house-ahca.pdf>. Published March 7, 2017. Accessed April 25, 2017.
 16. Rogers JA. AARP letter to Congressional leadership on the American Health Care Act. <http://www.aarp.org/content/dam/aarp/politics/advocacy/2017/03/aarp-letter-to-congress-on-american-healthcare-act-march-07-2017.pdf>. Published March 7, 2017. Accessed April 25, 2017.
 17. Chin MH. How to achieve health equity. *N Engl J Med*. 2014; 371:2331-2332.

SGIM

PRESIDENT'S COLUMN

continued from page 3

providers in the EHR. During the visit, the physician consults an online phenotyping algorithm, which returns a predictive analytics result indicating the patient's risk for disease and her eligibility for a local clinical trial. On finishing the physical exam, the provider completes the note before leaving the exam room, including a template that is pre-populated based on the patient profile. A researcher within the health system receives an alert that a patient met the criteria for the clinical study, which the patient consents to participate in. Information that accumulates over the course of the patient's care, such as development of a new condition that might disqualify her from the study, is seamlessly communicated to the research team. Additionally, clinician-educators have high-quality, interactive curricula and just-in-time teaching tools to prepare their learners for this new environment.

Academic general internists will play a critical role in achieving this vision, which is why SGIM's 2018

Annual Meeting in Denver, Colorado, is focusing on health information technology as its theme. The Annual Meeting will be an outstanding opportunity for SGIM members to learn about (and help shape) how innovations in informatics and Health IT are affecting the way we deliver patient care, conduct research, and teach our learners. But, beyond this meeting, SGIM members should recognize that mastering a basic set of core competencies in this space is essential to their future careers. Core curricula have been developed and validated for those interested in fellowship training in informatics, and informatics electives exist at most medical schools. But, to our knowledge, no one has yet identified what informatics topics should be familiar to a competent academic general internist. As a starting point, we offer the following Top Five List:⁶

1. Decision science: decision analysis, probability theory, Bayes theorem, evaluation;

2. Clinical data types and tools: encoded, constrained vocabularies, narrative text, natural language processing, imaging data, precision medicine;
3. Clinical decision support: types, strategies, implementation, knowledge representation, acquisition, and management;
4. Information technology systems: architecture (networks, integration versus interfaced), security, HIPAA Security Rule, encryption, mobile health; and
5. Health information regulation: Federal (HIPAA), state (retention laws), local.

There will be multiple opportunities at the Annual Meeting for SGIM members to learn some of this critical content. In addition, while planning for the 2018 Annual Meeting is still in its early stages, we anticipate several other aspects of the meeting will feel new to longtime SGIM members:

continued on page 11

PRESIDENT'S COLUMN

continued from page 10

- **Participation of patient advocates/expert patients.** Increased involvement of thoughtful, articulate patients in the Annual Meeting will help us understand how our research, clinical care, and education can better meet the needs of the patients we aim to serve. Informatics and health information technology are impacting patients as much as physicians. Forming closer alliances with patients could strengthen SGIM's ability to promote constructive change in this domain.
- **Collaboration with the American Medical Informatics Association (AMIA).** AMIA is a thriving, multi-disciplinary organization with 5,400 members who are experts in the science and practice of informatics as it relates to clinical care, research, education, and policy. AMIA represents a natural partner for SGIM in this Annual Meeting and beyond. SGIM has strengths in clinical practice, health care delivery, and research methodology. AMIA's strengths lie in clinical informatics, technical expertise, and partnerships with industry.
- **Carefully considered engagement with industry.** SGIM's relationship with industry is a complex issue that will be the topic of a subsequent *Forum* article. Nonetheless, the Annual Meeting content will be significantly more robust if we thoughtfully engage industry as active participants in the exchange of ideas, identification of shortcomings and barriers to reaching HIT's full potential, and a search for innovation. There will be multiple and substantive opportunities in the 2018 Annual Meeting planning for dialog and feedback from the SGIM membership about how best to approach industry engagement while strictly adhering to the spirit and procedures outlined in

our policy related to Acceptance and Disclosure of External Funds.⁷

I look forward to working with each of you on developing an outstanding 2018 Annual Meeting, and encourage all our members to embrace the role that this new core competency around informatics and health information technology will play in our careers going forward.

References

- 1 Karlawish J. Desktop medicine. *JAMA*. 2010;304(18):2061-2062.
- 2 American Medical Informatics Association. Biomedical informatics core competencies. <https://www.amia.org/biomedical-informatics-core-competencies>. Accessed May 1, 2017.
- 3 Stead WW. *Evidence-based medicine and the changing nature of health care: 2007 IOM annual meeting summary 2008*. Washington DC; The National Academies Press; 2008.
- 4 Detmer DE, Shortliffe EH. Clinical informatics: prospects for a new medical subspecialty. *JAMA*. 2014 May;311(20):2067-8.
- 5 Adler-Milstein J, Embi PJ, Middleton B, et al. Crossing the health IT chasm: considerations and policy recommendations to overcome current challenges and enable value-based care. *J Am Med Inform Assoc*. 2017 Mar 15. doi: 10.1093/jamia/ocx017.
- 6 Gardner RM, Overhage JM, Steen EB, et al. Core content for the subspecialty of clinical informatics. *J Am Med Inform Assoc*. 2009;16:153-7.
- 7 SGIM. <http://www.sgim.org/File%20Library/SGIM/About%20Us/Policies/External-Funds-Policy-Dec-2005.pdf>. Accessed May 1, 2017.
- 8 Payne TH, ed. *Practical Guide To Clinical Computing Systems. Design, Operations, and Infrastructure*. Oxford: Academic Press, Second Edition; 2015.
- 9 Perlin JB, Baker DB, Fridsma BD, et al. Information technology interoperability and use for better care and evidence. A vital direction for health and health care. <https://nam.edu/information-technology-interoperability-and-use-for-better-care-and-evidence-a-vital-direction-for-health-and-health-care/>. Published September 19, 2016. Accessed April 28, 2017.

SGIM

RESEARCH FACULTY—Division of General Medicine and Primary Care, Boston's Beth Israel Deaconess Medical Center (BIDMC, major teaching affiliate of Harvard Medical School), seeks entry-level and mid-career research faculty. The Division's research focuses on improving the health of vulnerable populations and those with chronic conditions, fostering patient-centered care, improving clinical decision making, and developing, implementing, and testing innovations in primary care and hospital medicine. Sixteen M.D. and Ph.D. investigators conduct research, seek external funding, and provide mentoring within Harvard's general medicine and integrative medicine fellowships. M.D. and/or Ph.D. required, with general medicine research interests. M.D.s practice within BIDMC's faculty general medicine practice. Under-represented minorities, women, and persons with disabilities encouraged to apply. BIDMC is an equal opportunity employer.

Please apply by going to <https://hmfphysicians.org/>.

Please enter **171075** in keyword search to locate the job posting, and apply.

BEST PRACTICES

continued from page 4

gas, cramping, or diarrhea for the first 1-3 weeks after starting PrEP and suggest over-the-counter medications the patient can take if such side effects occur;

- Reinforce that PrEP should be taken daily—NOT only just before or after sex (“on-demand” or “intermittent” dosing); and
- Ask patients if they have any concerns about taking PrEP and address them. For example, some patients may be hesitant to tell others that they are taking PrEP because they worry they will be considered promiscuous or may be thought to have HIV infection. If not addressed, such concerns may interfere with adherence.

Maintaining Adherence Over Time

After initiating PrEP, patients should be seen every 3 months for repeat HIV testing and when HIV tests are negative, refill the PrEP prescription in ample time for the patient to stay on medication. At these visits, providers should assess medication adherence. Adherence assessments should be asked in a nonjudgmental way that allows patients to acknowledge problems they are having. The provider can then solicit the reasons for missed doses, help the patient identify ways to address those issues going forward and incorporate those into a plan for the next few months. Periodic screening for unrecognized STIs and renal function is also necessary.

Additional Adherence Support from Staff

Engaging nurses or medical assistants in assessing adherence, or following up with patients after the visit may also help support adherence. Staff can also help patients maintain or transition between insurance and medication assistance plans, which are critical for paying for PrEP medication without which adherence is not possible.

When Patients Do Not Adhere to PrEP

For patients who are not able or willing to take a pill daily, or who are not

Box 1: Patient Brochures and Factsheets

A Pill A Day Keeps HIV Away: Taking Daily Medication:

<https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-adherence.pdf>

Truvada Medication Information Sheet:

http://www.cdc.gov/hiv/pdf/prep_gl_patient_factsheet_truvada_english.pdf

Talking to Your Doctor About PrEP:

https://www.cdc.gov/hiv/pdf/risk_prep_talkingtodr_finalcleared.pdf

Paying for PrEP:

<http://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-paying-for-prep.pdf>

keeping their follow-up appointments for refills and retesting, it is important to discuss whether and how to safely transition off PrEP and onto another effective HIV prevention method that meets their needs. It's possible that they will be willing and able to adhere to PrEP at another time in their lives.

Resources for Providers and Their Patients

PrEP is one of several highly effective means of preventing the spread of HIV infection, but like condoms and antiretroviral suppression through treatment of infection it requires adherence in both the short term and persistent adherence over time. Primary care providers are ideally suited to provide PrEP to their HIV-uninfected patients who would benefit and to support their adherence to daily medication use.

Educational materials for patients (box 1) and clinical education and support services for health care providers (box 2) are being scaled up by CDC, professional associations, health departments, and others to support expanded access to and use of PrEP by those who would benefit from its prevention effectiveness.

References

1. Conniff J, Evensen A. Preexposure prophylaxis (PrEP) for HIV prevention: the primary care perspective. *J Am Board Fam Med.* 2016;29(1):143-151.
2. Centers for Disease Control and

Box 2: Clinical Resources

PrEPLine: Call for phone consultation with clinical experts in PrEP care (855) 448-7737 or (855) HIV-PrEP Monday–Friday, 11 am–6 pm EST Voicemail available 24 hours a day

National Clinician Consultation Center Web Site:

<http://nccc.ucsf.edu/clinician-consultation/prep-pre-exposure-prophylaxis/>

Prevention. Preexposure prophylaxis for the prevention of HIV infection in the United States—2014: a clinical practice guideline. <http://www.cdc.gov/hiv/pdf/guidelines/PrEPguidelines2014.pdf>. Accessed April 27, 2017.

3. Centers for Disease Control and Prevention. Preexposure prophylaxis for the prevention of HIV infection in the United States—2014: clinical providers' supplement. 2014:1-43. <http://www.cdc.gov/hiv/pdf/guidelines/preprovidersupplement2014.pdf>. Accessed April 27, 2017.
4. Smith DK, Van Handel M, Wolitski RJ, et al. Vital signs: estimated percentages and numbers of adults with indications for preexposure prophylaxis to prevent HIV acquisition—United States, 2015. *MMWR Morb Mortal Wkly Rep.* 2015;64(46):1291-1295.
5. Grant RM, Anderson PL, McMahan V, et al. Uptake of pre-exposure prophylaxis, sexual practices, and HIV incidence in men and transgender women who have sex with men: a cohort study. *Lancet Infect Dis.* 2014;14(9):820-829.
6. Osterberg L, Blaschke T. Adherence to medication. *N Engl J Med.* 2005;353(5):487-497.

^a Co-formulated tenofovir disoproxil fumarate 300 mg and emtricitabine 200 mg, marketed as Truvada in the United States by Gilead Sciences, Foster City, CA. **SGIM**

PERSPECTIVE

continued from page 5

secondary prevention, medical students become experts at reciting the imaging features that differentiate cerebral toxoplasmosis from primary CNS lymphoma. That knowledge, though useful, does little to help my patients remain engaged in outpatient care or adherent to chronic medications when biopsychosocial and structural barriers abound.

Through National Institutes of Drug Abuse funding, small-scale community outreach teams work to reengage poorly retained patients. Here, I stepped into the patients' environment, a rare experience for a physician in training. This proved more emotional than anticipated as a few miles from work and school, the stark reality of poverty, addiction, and sex work make consistent access to the formal healthcare system next to impossible. Overcoming such challenging social situations will require more patient-centered approaches, moving care delivery closer to the community, decreasing stigma, and better integrating HIV care and substance use services. This experience also helped me understand why long term retention in care after successful linkage to care remains challenging. At IDP, only 49 percent of patients are retained continuously over 36 months.⁹ Now, when a patient apologizes for missing his last appointment, I nod in understanding, not because this is what we are taught to do, but because I more fully appreciate the barriers he has faced to even reach this point.

While the focus of domestic HIV research is increasingly transitioning to managing long-term complications of infection and treatment, there is a clear need to improve the delivery of the tools we currently possess. My experience with the HIV care continuum in Atlanta points to barriers to care more commonly associated with Khayelitsha, South Africa, than San Francisco, California. Working in Khayelitsha and Gugulethu townships, it became clear that groups facing grinding poverty have difficulty making long-

term commitments to traditional treatment, challenges that are not limited to developing countries.⁹ Our current healthcare system is designed for those delivering care rather than those receiving it. We are in need of differentiated models of care and implementation science to develop innovative solutions for delivering patient-centered care to our most vulnerable patients. In Gugulethu, this meant creating adherence clubs where clinic meetings are moved into the community and tasks are shifted from physicians to nurses and finally to community health workers.¹⁰ Models like this can be adapted for use in the United States, continuing the tradition of reverse innovation. Fundamental change in our care delivery systems will require new funding models with support for roles outside the traditional provider visit. Improving the care continuum and halting the epidemic in more vulnerable populations may depend on it.

In summary, this experience reinforced the idea that we must advocate for models of compassionate care that fit our patient's lives, yet creating effective models requires a realistic understanding of our patients' lives. If we remain focused only on the clinical presentation and do not see patients as existing at the crossroads of social, political and economic barriers to health, we will fail to deliver better health outcomes. As I enter the clinical years of medical school, I will be better prepared to understand and connect with my patients, provide compassionate care aimed at their most pressing problems, medical or otherwise, and advocate on their behalf both inside and outside of clinic walls. While this experience has highlighted both the gaps in medical education and the HIV care continuum, it has also provided a framework for a way forward.

References

1. Centers for Disease Control and Prevention. Kaposi's sarcoma and Pneumocystis pneumonia among homosexual men—New York City

and California. *Morb Mortal Wkly Rep.* 1981; 30:305–8.

2. Samji H, Cescon A, Hogg RS, et al. Closing the gap: increases in life expectancy among treated HIV-Positive individuals in the United States and Canada. *PLoS ONE.* 2013; 8(12): e81355.
3. White House Office of National AIDS Policy. *National HIV/AIDS strategy for the United States: update to 2020.* Washington, DC: White House Office of National AIDS Policy; 2015.
4. Hall HI, An Q, Tang T, et al. Prevalence of diagnosed and undiagnosed HIV infection—United States, 2008–2012. *Morb Mortal Wkly Rep.* 2015; Jun 26;64(24):657–662.
5. Remien RH, Bauman L, Mantell J, et al. Barriers and facilitators to engagement of vulnerable populations in HIV primary care in New York City. *J Acquir Immune Defic Syndr.* 2015; 69.
6. Govindasamy D, Ford N, Kranzer K. Risk factors, barriers and facilitators for linkage to antiretroviral therapy care. *AIDS.* 2012;26(16):2059–2067.
7. Colasanti J, Armstrong WS. A glimpse of the early years of the Human Immunodeficiency Virus epidemic: a fellow's experience in 2014. *Open Forum Infect Dis.* 2014;1(2):ofu035.
8. Colasanti J, Kelly J, Pennisi E, et al. Continuous retention and viral suppression provide further insight into the HIV care continuum compared to the cross-sectional HIV care cascade. *Clin Inf Dis.* 2016; 62: 648–654.
9. Alsan MM, Westerhaus M, Herce M, et al. Poverty, global health and infectious disease: lessons from Haiti and Rwanda. *Infect Dis Clin North Am.* 2011; 25(3): 611–622.
10. Grimsrud A, Sharp J, Kalombo K, et al. Implementation of community-based adherence clubs for stable antiretroviral therapy patients in Cape Town, South Africa. *J Int AIDS Soc.* 2015; 18:19984.

FROM THE REGIONS

continued from page 6

shared his team's innovative work to adapt SGIM's TEACH program for a local, interprofessional audience. Jeffrey Bien, MD (Oregon Health & Science University, Internal Medicine Residency Program), presented a fascinating case of Susac Syndrome, discussing the differential diagnosis for paranoia, and emphasized the importance of humanistically exploring a patient's disabling psychiatric symptoms in the primary care setting.

This was also the second year that the region focused a concerted effort to promote live-tweeting from the meeting and engage its online professional community through the

dedicated hashtag #SGIMNW17. Ximena Levander, MD, (@xlevander), was our social media lead this year, and the hashtag was again registered with Symplur© (symplur.com) and the "Healthcare Hashtag Project" by the National SGIM office. The real-time social media component of the meeting added another dimension of energy and excitement to the meeting. Our goal was to use this connectivity to share, spread, and celebrate the meeting's contents and pearls. During the actual conference (8:00 am-6:00 pm), there were 231 tweets (nearly twice last year's volume!) from 29 participants.

The meeting cochairs would like to acknowledge all who attended, our National SGIM office support (Alison Barrett), and all those who donated their time to support this meeting, including the reviewers, the judges, distinguished faculty, and the planning committee (Mike Krug, Lisa Inouye, Maryann Overland, Chris Wong, Magni Hamso, Anna Golob, Ginger Evans, Avi O'Glasser, Jared Klein, Chris Terndrup, James Clements, Ximena Levander, Laura Loertscher, Abigail Hikida, Stefanie Deeds, and Kellie Littlefield). We look forward to seeing you next year for #SGIMNW18 in Seattle! SGIM

MORNING REPORT

continued from page 7

Hispanic males is unclear. It is estimated that 5% of women in the world are affected with PAS type III compared to 1.5% of men.¹ Hashimoto's thyroiditis is most prevalent among white women. It may appear that Hispanic men are less likely to have PAS type III due to the low likelihood of developing autoimmune thyroid disease. However, based on research by Genta, Allen, and Rugge using a nationwide database of ~1 million people with upper endoscopy specimens in the United States, AIG was more than twice as common in subjects of Hispanic ancestry as in non-Hispanics and non-Asian Americans. AIG did not appear to correlate with the prevalence of H. pylori, indicating that autoimmune-mediated processes should be considered in Hispanic patients with atrophic gastritis despite the high prevalence of H. pylori in that population.⁴

Our patient required three units of pRBCs transfused during hospitalization. He received IV B12 and iron supplementation. Transthoracic echocardiogram showed normal left ventricular function and no regional wall motion abnormalities. Five days after presentation, symptoms of chest pain and shortness of breath resolved and patient was discharged home with follow up with primary care and gastroenterology as an outpatient.

Our patient had a well differentiated G-cell tumor that was resected at endoscopy (<1cm) with no evidence of metastatic disease on imaging (Type 1). Gastric carcinoid tumors are rare (2-3% of all carcinoids) and are very rarely functioning with a good overall prognosis.¹ A surveillance endoscopy was planned at time of discharge.

This case demonstrates late and dramatic presentation of PAS in a Hispanic middle-aged male. As such, PAS should be considered as a group of syndromes that occur beyond the population of young white women. As autoimmune diseases often coexist in an individual, it is important to consider secondary autoimmune processes in a patient with a known autoimmune condition presenting with new symptoms. Close follow up and vigilant surveillance is required for all patients with PAS.

References

1. Arnold, R. Endocrine tumors of the gastrointestinal tract. *Best Pract Res Clin Gastroenterol.* 2005;19(4):491-505.
2. Betterle C, Garelli S, Coco G, et al. A rare combination of type 3 autoimmune polyendocrine syndrome (APS-3) or multiple autoimmune syndrome (MAS-3).

Auto Immun Highlights. 2014;5(1):27-31. doi:10.1007/s13317-013-0055-6.

3. Coati I, Fassan M, Farinati F, et al. Autoimmune gastritis: pathologist's viewpoint. *World J Gastroenterol.* 2015;21(42):12179-12189. doi:10.3748/wjg.v21.i42.12179.
4. Genta RM, Allen R, Rugge M. Ethnic distribution of atrophic autoimmune gastritis in the United States. Presentation presented at Miraca Life Sciences Research Institute in Irving Texas. <http://www.miracalifesciences.com/wordpress/wp-content/uploads/2014/10/AIG-Genta-Allen-Rugge-DDW-PPT.pdf>. Accessed April 26, 2017.
5. Kahaly GJ. Polyglandular autoimmune syndromes. *Eur J Endocrinol.* 2009;161(1): 11-20. doi: 10.1530/EJE-09-0044.
6. Kulnigg-Dabasc S. Autoimmune gastritis. *Wien Med Wochenschr.* 2016;166(13): 424-430. doi: 10.1007/s10354-016-0515-5
7. Nikou GC, Angelopoulos TP. Current concepts on gastric carcinoid tumors. *Gastroenterol Res Pract.* 2012; 2012: Article ID 287825, 8 pages. doi:10.1155/2012/287825.

SGIM

EDUCATORS' CORNER

continued from page 8

and the level of evidence supporting it are given separate ratings. Let us again look at the ACC/AHA lipid guidelines as an example. For patients with diabetes, they recommend moderate intensity statin therapy, and high intensity statin therapy if these patients are at higher estimated risk. But these recommendations do not carry the same weight: the first is assessed as a Class of Recommendation of "I" with a Level of Evidence of A, while the second is a Class of Recommendation of "IIa" with a Level of Evidence of "B".

It is impossible to know what I/A versus IIa/B really means unless you read the recommendation rating scheme. We must teach our learners to examine these differences carefully—they may not appear on the pictorial treatment algorithm, but are often of clinical importance: there is a subtle difference between recommending physicians "should" do something rather than "could".

Other guidelines such as the JNC-8 for hypertension or the CHEST guidelines for venous thromboembolic disease offer their own rating systems. To further complicate matters, in 2016 the ACC/AHA has since updated its Level of Evidence system to A, B-R, B-NR, C-LD, C-EO⁶ making the recommendations of newer ACC/AHA guidelines more difficult to compare to their predecessors. This confusing alphanumeric salad of recommendation rubrics will likely continue to change—many authors are moving toward the GRADE system⁷—in the effort to make clearer just what is a "strong" versus "weak" recommendation.

5. Where is the "art" in the guideline?

At some point, there must be a transition from evidence to recommendation. This threshold may be a tentative toe in the water or a large leap of faith. For the lipid guidelines, moving from evidence that statins lower cardiovascular risk to recom-

ending a percentage risk threshold—that is judgment. Did the authors explain how they reached these recommendations? How were potential benefits and harms weighed against one another? Were costs and real-world implementation considered? What about effect size? An intervention may "work," but is it "worth it?"

To be fair, this act of judgment must happen in a clinical guideline—that is what makes a guideline different than a systematic review. The whole purpose of the guideline is to interpret the evidence and translate it into a practical recommendation. This transition to interpretation may not always be explicitly stated—finding the art among the tables and IAs and 2Cs is our task. Well written guidelines should point out what clinical questions appear to be settled, which data is lacking, and where a need for additional research exists.

Thoughtful guideline authors are working to improve the guideline process. For example, the MAGIC (Making GRADE the Irresistible Choice) project employs a separate research team to analyze evidence, reduce time from evidence to recommendation, and provide point-of-care resources.⁸

Until guideline development processes become more reliably standardized and transparent, clinicians and educators may use these questions as a starting point to assist learners with varying levels of experience in assessing clinical practice guidelines.

References

1. Stone NJ, Robinson JG, Lichtenstein AH, et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol*. 2014; 63(25 Pt B):2889-934.

2. Brouwers MC, Kho ME, Browman GP, et al. AGREE II: advancing guideline development, reporting, and evaluation in health care. *Prev Med*. 2010;51(5):421-4.
3. Institute of Medicine of the National Academies. Clinical practice guidelines we can trust. Report brief. <https://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2011/Clinical-Practice-Guidelines-We-Can-Trust/Clinical%20Practice%20Guidelines%202011%20Report%20Brief.pdf>. Published March 2011. Accessed April 25, 2017.
4. Downs JR, O'Malley PG. Management of dyslipidemia for cardiovascular disease risk reduction: synopsis of the 2014 U.S. Department of Veterans Affairs and U.S. Department of Defense clinical practice guideline. *Ann Intern Med*. 2015;163(4):291-7.
5. NICE guidelines [CG181]. Cardiovascular disease: risk assessment and reduction, including lipid modification. <http://www.nice.org.uk/guidance/cg181>. Published July 2014. Accessed April 26, 2017.
6. Halperin JL, Levine GN, Al-Khatib SM, et al. Further evolution of the ACC/AHA clinical practice guideline recommendation classification system: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2016;67(13):1572-4.
7. Grade Working Group. <http://www.gradeworkinggroup.org>. Accessed April 26, 2017; for reference see also *Journal of Clinical Epidemiology* 2011; 64(4) for a series of articles about GRADE.
8. Otto CM, Spencer FA, Olav Vandvik P. Evidence, experts, trustworthy guidelines and WikiRecs. *Heart*. 2017;103(1):3-5. doi: 10.1136/heartjnl-2016-310353. Epub 2016 Sep 30.

SGIM **FORUM**

Society of General Internal Medicine
1500 King Street, Suite 303
Alexandria, VA 22314
202-887-5150 (tel)
202-887-5405 (fax)
www.sgim.org

**We hope to see everyone at the
2017 SGIM Midwest Regional Meeting
on September 14-15, 2017
Northwestern Memorial Hospital Feinberg Pavilion
Chicago, Illinois**

Featuring:

Keynote Speaker: Andrea Sikon, MD

Mentorship and networking opportunities!

Exhibit your work and meet old and new colleagues!

<http://www.sgim.org/meetings/regional-meetings/midwest>