**SIGN OF THE TIMES**

**Beyond Procedures and Checklists: Using Simulation to Remediate Communication and Professionalism Skill Challenges**

Kirsten Broadfoot, PhD; Jeannette Guerrasio, MD; and Eva Aagaard, MD

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Effective communication has been linked with increased patient and physician satisfaction, improved patient adherence to treatment plans, more appropriate medical decisions, better health care outcomes, and fewer malpractice claims. Unfortunately, the reverse is also true. Unprofessional behavior in medical school and/or communication skills performance in the bottom quartile of the USMLE Step 2 CS examination have a strong positive correlation with subsequent disciplinary actions by state medical boards.

Communication and professionalism challenges typically revolve around contested interpretations of communicative practices. Humor, recognizing and discerning social cues, eliciting another’s perspective, empathy, asking open-ended questions, emotion management, modeling, and relational dimensions of work (e.g. teamwork and collaboration, power and authority, and hierarchical expectations) are all points of difference. Default patterns of communication within these dimensions of professional relationships are triggered by the clinical context in which an individual works and by life stressors. Addressing professionalism and communication lapses requires a holistic understanding of the problem at hand as well as strategies to objectively and specifically discern behavioral patterns.

The University of Colorado School of Medicine has developed a new program that attempts to remediate communication and professionalism lapses through attention to both the context and skills aspects of the problem. Many communication patterns of disruptive or distressed medical learners and physicians are learned behaviors. As a result, remediation involves the unlearning and relearning of more effective communicative strategies. This unlearning and relearning process is grounded in an awareness of deficits and a willingness to reflect, process, and experiment. Both feedback from peers and experts and self-reflection are essential at all points of the remediation process and beyond. Without these components of practice, reflection, and specific behavioral feedback, remediation can falter if not fail.

After receiving a referral, the remediation team conducts an informal multisource assessment. Multisource evaluations include verbal and written reports from observing faculty and staff and details regarding specific continued on page 10
Choosing to Work with Large Datasets: Perspectives of a Junior Researcher

Neda Laiteerapong, MD, MS

Large datasets provide a great opportunity to hone analytic skills using “real” data while producing publishable findings. As a junior researcher, I’ve had the opportunity to work with several large datasets. There are two key features to understand before deciding to work with large datasets. First, it is important to have a sincere love of data and data analysis. Second, the large dataset must be essential to answering your research question because a secondary data project is not necessarily faster or easier than a primary data project.

From my perspective, loving data is essential to working with large datasets because as a “database” researcher, data are your “participants” and statistical software is your “setting.” Many researchers may find working with numbers instead of participants to be quite boring. Personally, I relish the opportunity to work with data so that I can better understand not only my research but also the world I live in. Just this week, I collected data on how long it took me to preview a clinic chart (average: 17.3 minutes). Multiplying the excess time per patient by the number of patients seen easily explains why I often run late. When deciding if I should move closer to work, I performed a regression analysis and found that my baseline morning commute time was 23 minutes and that the afternoon commute took at least 45 minutes no matter what I did. Within a year, I moved and now live within walking distance of work.

As a researcher, data are only valuable when I am able to transform them into meaningful statistics. Large datasets tend to be generalizable to big populations, like the US civilian non-institutionalized populations represented in the National Health and Nutrition Examination Survey (NHANES); the Medical Expenditure Panel Survey (MEPS); or the National Social Life, Health, and Aging Project (NSHAP). This value is not lost on researchers, reviewers, or editors. Therefore, as I was starting my research career, I decided that it was essential that I learn to analyze a few large datasets. Another benefit of using large datasets is that many are publicly available, which means that for a junior researcher with a small budget, the start-up costs are quite low.

There are, however, several major challenges to using national datasets. First, because many national datasets are publicly available, your research question may have already been answered completely or partially by another researcher. Second, since the dataset was created for a reason other than answering your research question, key variables to your research may be missing or incomplete. Third, the dataset may have been collected or organized in such a way that your research will not fit the dataset.

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Everyone in SGIM is an Advocate
Marshall H. Chin, MD, MPH

SGIM’s committees, task forces, and the annual program committee are in the process of developing a variety of career development curricula that will cover topics important for advocacy.

I’d like to describe SGIM’s role in advocacy and explain how you can get involved. Whether you know it or not, everyone in SGIM, including you, is an advocate.

University of Chicago medical students take a required health disparities course in the fall of their first year, and over the past couple of years, course directors Monica Vela and Valerie Press have made advocacy a major theme of the course. For some students, the idea of being an advocate is a natural continuation of their prior lives as policy wonks, volunteers in political campaigns, participants in single-issue movements, and community activists. Many other students are familiar with the debates over the Affordable Care Act (ACA) and can easily visualize a role advocating for health policies that are important to them. Some students, however, are genuinely perplexed and wonder what advocacy has to do with their careers as physicians.

Over the ensuing weeks of the course, the medical students gradually realize there is a spectrum of advocacy, and the challenge is figuring out where along this continuum they personally feel most comfortable. Uniformly, the students will agree that one of their core responsibilities is to advocate for their patients. Increasing numbers of students envision quality improvement or health care administration as parts of their careers, and so advocacy for local systems improvement is natural. Other students are headed to careers in outcomes research and recognize the power of data in policy and advocacy. And some students see themselves marching in Washington or walking the halls of the Capitol in our stereotypical role of the health policy advocate.

One of the major benefits of being a member of SGIM is the power of the group. Organizations carry more power and influence than individuals. Each year, SGIM Council approves a health policy agenda that provides guidance for the work of the Health Policy Committee and the lobbying firm (Cavarocchi-Ruscio-Dennis Associates, LLC) SGIM contracts with. Here are examples of priority topics from this year’s recently approved policy agenda:

1. **Education.** Graduate medical education reform, including adequate funding of primary care and adequate funding of the Health Resources and Services Administration (HRSA) Title VII, which supports primary care training;

2. **Research.** Funding of Patient-Centered Outcomes Research Institute (PCORI), the Agency for Healthcare Research and Quality (AHRQ), the National Institutes of Health (NIH), VA health services research, and the NIH Clinical and Translational Science Award (CTSA) program; and

3. **Clinical Practice.** Paying general interns appropriately; better physician reimbursement schemes than that of the American Medical Association’s Relative Value Scale Update Committee (RUC); continued primary care bonus payment; and insurance reform that ensures patient access to care.

Given our limited resources, each policy topic receives a priority code that determines the level of our investment. Active advocacy issues are those in which SGIM members, staff, and consultants will be heavily involved. Coalition advocacy issues are those in which SGIM’s consultants will work collaboratively with other stakeholder organizations to advance SGIM’s positions. Monitoring advocacy issues are those in which SGIM’s consultants will provide continued on page 12
How can I be a great teacher for my learners? This is a unique challenge for all of us in an era where our learners are a diverse group that includes patients and families, medical students, residents, colleagues, and complementary providers as well as a multitude of additional team members, all with distinct needs. As the complexity, pace, and systematic pressures of patient care and education have intensified over the years, we have all faced enormous challenges as teachers and learners. By developing our teaching expertise, we can enhance the opportunities for our learners’ success. Members of the SGIM Education Committee reviewed educational and medical literature to craft “10 Good Rules” for becoming a great teacher:

1. Create a safe and engaging learning environment that inspires all to grow and improve.
2. Develop and negotiate mutual goals and objectives.
3. Assess learners to identify their strengths, learning gaps, and areas for improvement through data.
4. Probe with advanced questions to determine conceptual understanding, and teach to those gaps in knowledge.
5. Establish and maintain high expectations, and hold self and others accountable.
6. Demonstrate resiliency and adaptability while balancing the needs of the patient with those of the learners to maximize care and education.
7. Engage in and promote lifelong learning through deliberative practice of both clinical and teaching skills.
8. Exemplify professionalism, and reinforce the tenets of high-value, cost-conscious, and team-based care.
9. Provide systematic and ongoing feedback to learners, and elicit feedback for self-improvement.
10. Value and feel personal reward and meaning in your role as teacher.

We believe these 10 rules can help teachers at all levels improve their knowledge, skills, and attitudes for the benefit of our learners and by extension our patients. As educators it is paramount that we challenge our comfort zone and continually work to improve our skills. These rules should be viewed as a guide for both the “novice” and “expert” teacher as we all strive to be great. Only through hard work, assessment, and feedback can we improve.

Suggested Reading
After nearly 30 years at the Case Western Reserve University School of Medicine, I have participated in, facilitated, and led numerous faculty development programs at our institution. I often encounter junior and mid-career faculty who, despite years of excellence and dedication to their chosen field as clinicians, educators, and researchers, express frustration with the promotion process and the perceived lack of appreciation for their work.

There is a different metric by which medical school faculty are judged, and it is often not apparent to new and even mid-career faculty. Here, then, is a list of attributes for success in academic medicine. The list is my own, compiled from my own educational journey as well as from personal observations and interactions with the promotions process and key stakeholders in that process. With it, I aspire to highlight the unique expectations of academic medical centers and the challenge inherent in achieving balance between professional lives and career aspirations. Comments and critiques of this approach will be welcomed by me and may appear in a future issue of Forum.

I would like to thank the numerous teachers, mentors, and research colleagues I have had over the years at Case Western Reserve University, SGIM, and the American College of Physicians for influencing my vision and enhancing my ability to attain my personal career goals.

10 Habits of Successful Medical School Faculty
1. Be excellent at what you do whether it be patient care, teaching or research, and realize that “being excellent” is basically doing your job. This is the expectation. If you weren’t excellent, you wouldn’t be here.
2. Understand the mission of your institution (i.e. school or hospital), and find your place in it. Find a way to make unique contributions to that mission.
3. Discover something you are passionate about in your field, and share your passion.
4. Be strategic about your career development. Choose finite definable goals, and work to understand the path to achievement of those goals. Be humble. Seek mentorship and accept criticism with an open mind and with the goal of continuous personal improvement.
5. Keep your skill set sharp. Whatever the stage in your career, seek out opportunities to learn and grow your toolkit of “executive functions,” including leadership, scholarship, negotiation, collaboration, communication, and networking, to name a few.
6. Get outside your home institution and do something (e.g. academic presentations, mentoring, advocacy, leadership).
7. Pay it forward. Find opportunities to be a mentor and a sponsor. When your plate gets too full, delegate projects to others you have trained to be future leaders of the agenda you have initiated. Let sponsorship of others be a mechanism for multiplying the impact of your projects.
8. Look out for trainees and junior faculty. If you witness injustices in hiring practices, delegation of teaching assignments, opportunities for leadership, and career advancement, advocate for change from within your institution.
9. Develop your network, maintain relationships, and facilitate collaboration among your contacts.
10. Promote your projects, share your successes, and make the impact of your work known.

Karen R. Horowitz, MD
A 77-year-old woman presents to the emergency department with altered mental status. There is no immediate family member available for further history. The patient does not know what medical conditions she has, what medications she is taking, or the details of her social and family history.

The differential diagnosis for altered mental status is broad. It includes infectious causes, such as urinary tract infection, pneumonia, meningitis, and endocarditis; metabolic conditions, such as hypoglycemia, hyper/hypotension, hypercalcemia, hypoxia, hypercapnia, hepatic encephalopathy, uremic encephalopathy, drug intoxication or withdrawal, and Wernicke encephalopathy; intracranial events, such as cerebrovascular accident, intracranial hemorrhage, primary or metastatic tumors, and encephalitis; cardiac events, such as arrhythmias, heart failure, and hypertensive emergencies; and vasculitis. The differential diagnosis of altered mental status is based on historical and physical findings. It is especially important to distinguish delirium from dementia.

Unfortunately, in this case, no collaborative information is available, and the patient is not able to provide any additional history. Therefore, physical exam and laboratory and radiology data will have to play a more critical role in this patient assessment.

On physical exam, the patient is drowsy and oriented to self only. The patient is afebrile with a pulse of 80, blood pressure of 130/70, respirations of 25, and oxygen saturation of 97% on room air. She has moist mucus membranes, clear lungs to auscultation, a regular heart rate and rhythm without murmurs, a soft nontender abdomen without hepatosplenomegaly, and no edema of the extremities. She has bruises on her forehead and knees. Her neurological exam is nonfocal.

There is clear evidence of altered alertness in this patient. Her exam is nonfocal, making stroke or tumors less likely. She does have tachypnea, which especially in the elderly can be a sign of sepsis syndrome even without fever. Tachypnea can also be present in pulmonary embolism, hyperthyroidism, anxiety, and respiratory acidosis. Electrolyte and metabolic abnormalities, especially with the tachypnea, will need to be ruled out. I would recommend a full basic metabolic panel, complete blood count, and arterial blood gas if the basic metabolic panel is abnormal. The bruises on the forehead and knees could indicate a problem with platelets or abnormal coagulation (e.g. from warfarin, liver disease), so a head CT to rule out bleed and INR, PT, and PTT should be obtained.

The patient’s labs are as follows: sodium 138, potassium 3.7, chloride 116 (H), bicarbonate 16 (L), creatinine 0.8, bun 26; CBC, AST, ALT, alkaline phosphatase, albumin, and PT/INR/PTT are normal. Arterial blood gas reveals a pH 7.45, pCO₂ 26.1 (L), calculated HCO₃ 16.0 (L), and pO₂ 97.

The patient has a mixed-acid base picture with a pH in the normal range but with a low serum bicarbonate and low serum CO₂. With the pCO₂ less than 40, this patient has a respiratory alkalosis. However, in order to determine if there is a secondary disorder, we need to calculate the corrected bicarbonate, which is equal to the actual HCO₃ plus the anion gap minus 12. If the corrected bicarb is more than 30, then there is a primary metabolic alkalosis. If the correct bicarb is 23 to 30, then there is no additional disorder. If the corrected bicarb is less than 23, then a hidden metabolic acidosis exists. In our case, the bicarb is 16 and the anion gap (Na- (Cl+HCO₃ )) is 6, so the corrected bicarb is 10. Therefore, our patient has a respiratory alkalosis with a non-anion gap metabolic acidosis.

The differential diagnosis for a normal anion gap metabolic acidosis is divided into two groups: GI losses, such as diarrhea, fistulas, or ileal loop, and renal causes, such as renal tubular acidosis, carbonic anhydrase inhibitor use, or post hypopcapnia. The differential diagnosis of respiratory alkalosis includes hypoxemia, stimulation of pulmonary or pleural receptors (i.e. pneumonia, pulmonary embolism, pulmonary edema, asthmal, psychogenic hyperventilation, medications (e.g. theophylline, catecholamines, salicylates, and progesterone), CNS disorders, fever, early sepsis, and increased minute ventilation secondary to ventilator management. The differential diagnosis can be narrowed if both respiratory alkalosis and metabolic acidosis are present, and it includes gram-negative sepsis, acute cardiopulmonary arrest, severe pulmonary edema, and salicylate intoxication.

This patient has a negative head CT. Urine toxicology is negative. Salicylate level is high at 88 mg/dL. (Therapeutic level is 10 to 30 mg/dL.) When the patient’s family arrives, they explain that the patient was consuming 20 baby aspirins a day for three months for osteoarthritis.

The patient is transferred to ICU. A bicarbonate drip is started to alkalinize the urine; however, the salicylate level continues to increase to a peak of 98 mg/dL. Emergent hemodialysis is initiated. After two sessions continued on page 13

Drs. Haque and Haque are residents at the Presence Saint Francis Hospital Department of Internal Medicine in Evanston, IL, and serve as the presenter and discussant. Dr. Fang is editor of Morning Report and can be reached at michele-fang@uiowa.edu.
Recent statistics released by the American Cancer Society reveal that there are currently more than 14 million individuals who have been diagnosed and are living with cancer. It is estimated that by 2024, there will be almost 19 million cancer survivors. There are approximately equal numbers of male and female survivors, with the most common cancers among the males being prostate (43%), colorectal (9%), and melanoma (8%). Among females, breast (41%), uterine corpus (8%), and colorectal (8%) cancers are most common. Frequently, survivors are living with chronic medical conditions that also require care. While primary care providers are seeing an increasing number of cancer survivors in their practices, general medical training in cancer primarily focuses on the acute phase in patient settings. Research shows that primary care providers’ skills and confidence in caring for cancer survivors need improvement.

What do I do differently for cancer survivors?
In addition to standard high-quality primary care, cancer survivorship care must address:

1. Surveillance for recurrences of the original cancer. Cancer-specific recommendations for monitoring for recurrences exist and may include history, physical examination, blood work, and/or imaging. It is best to review the surveillance strategy with the treating oncology provider and determine who will complete evaluations when they are needed.

2. Monitoring and management of late and/or long-term effects of cancer and its treatment. Cancer survivors are at risk for a number of conditions that may arise during treatment or years later. For example, those treated with radiation may be at risk for secondary cancers in the field(s) of exposure, and those treated with chemotherapy may be at risk for cardiac dysfunction. Awareness and monitoring for such conditions are critical.

3. Psychosocial care. Survivors may be at risk for persistent depression, anxiety, and fear of recurrences. Monitoring and appropriate management are needed.

4. Assessment of genetic risk for other malignancies. It is important that primary care providers take a careful family history and refer the patient for genetic counselling and/or testing if several malignancies are identified.

How do I assess a survivor’s risk for recurrences or late effects of treatment?
The Institute of Medicine report issued in 2006 recommends that all patients who complete cancer treatment be given a survivorship care plan that includes information about their treatment, plans for follow-up, possible late effects, resources, and care coordination. Several organizations have developed templates to create survivorship care plans. Survivorship care plans are/should be developed by oncology providers and shared with patients and their primary care physicians.

What if I don’t get a treatment summary and care plan?
If you are caring for a new patient with a history of cancer, do your best to assess the type of cancer, date of diagnosis, and types of treatment received. Specifically, pay attention to the type of chemotherapy (i.e. names of drugs) and radiation therapy (i.e. amount of radiation and location on the body). Many helpful resources exist. Specifically, I would recommend UptoDate®, now with an expanding section of topics on cancer survivorship, and Survivorship Guidelines from the Children’s Oncology Group, which focuses on pediatric cancers while offering great practical information about late effects of chemotherapy and radiation. If you still feel uncertain, consult your local oncology group or cancer survivorship clinic, if available.

Resources

American Society of Clinical Oncology Survivorship Care Compendium is a resource developed to serve as a repository of tools and resources to enable oncology providers to implement or improve survivorship care within their practices.
http://www.asco.org/practice-research/asco-cancer-survivorship-compendium

Cancer Survivorship E-Learning Series is a free continuing education program that provides a forum to educate primary care providers to better understand and care for survivors in the primary care setting.
https://cancersurvivorshipcentereducation.org/
The SGIM Mountain West Regional Meeting, which took place on October 10, 2014, at Denver Health Hospital Authority in Denver, CO, was a great success. Maria G. Frank, MD, meeting chair and president-elect; Amber Wobbekind, MD, president; and Danielle Loeb, MD, past-president led the organization of the meeting. We had our best attendance ever with 93 attendees—20 more than the previous year. This was a 25% increase from 2013 and a 75% increase from 2011. Not bad for a region with 98 members! Attendees represented most states from our region: Colorado, Arizona, New Mexico, and Nevada. States outside our region were also represented, including Connecticut, Massachusetts, Nebraska, Michigan, Ohio, Texas, and New Jersey. Twenty percent of attendees who responded to the meeting evaluation survey described themselves as hospitalists. One resident answered the survey.

The theme of our meeting was “The Art of Practicing Medicine: the History Present and Future of GIM.” The practice of medicine is an art, influenced not only by the science and medical knowledge necessary to practice it but also by providers’ and patients’ culture, historical background, and social environment. In order to provide excellent health care, we need to not only update our medical knowledge but also recognize that we practice a human science—an art that requires appreciating medical humanities and a deep understanding of our profession’s past and present to steer health care to an optimal future.

Our keynote speaker was Bill Moran, MD, MPH, director of general internal medicine and geriatrics at the Medical University of South Carolina and sitting president of the Society of General Internal Medicine. In his talk “The Evolution of Health Care in the United States,” Dr. Moran guided us on a journey that culminated with a description of practice changes being introduced in his institution.

Our two plenary speakers were David Tanaka, MD, and Daniel Happe, MD. Dr. Tanaka, associate professor of medicine at the University of Colorado, gave “Updates in Primary Care,” and Dr. Happe, a hospitalist at the Denver Health Hospital Authority and assistant professor of medicine at the University of Colorado, gave “Updates in Hospital Medicine.” Each reviewed impactful articles in his field focusing on current and future changes in clinical care.

Workshops were among the most popular and acclaimed sections of our meeting. Invited workshops included “Stump the Professor,” where an unknown clinical case was discussed in a “morning report” format. Valli Yegappan, MD, chief medical resident from St. Joseph Hospital in Denver, CO, presented a case to Richard Albert, MD, chair of medicine at the Denver Health Hospital Authority. This well-received case presentation truly showcased the “art of medical practice.”

“The Physical Exam Revisited: Teaching Ultrasound Alongside the Traditional Physical Exam” was presented by Cason Pierce, MD; Gerard Salame, MD; and Jack Cunningham, MD. This workshop explored the use of bedside ultrasonography as an aid for physical examination. Physical examination skills have been declining among US medical graduates over the last several decades. Over the last 10 years, several medical schools have identified a need for refocusing on teaching physical exam skills. The Choosing Wisely initiative supports the use of examination to prevent unnecessary testing and provide cost-effective high-value care. The introduction of the stethoscope by Laennec in 1816 was initially controversial but widely accepted within five years. The use of ultrasound as a physical exam aid may represent the future of medical practice.

“Beyond First Glance: the Art of Observation and Description” was presented by Molly Medakovich. Ms. Medakovich is a master educator at the Denver Art Museum. In recent years, medical students and professionals have joined forces with museum educators to explore the intersection between the visual arts and medical practice. Some studies have shown that clinical engagement and diagnostic acuity are enhanced by participation in programs that encourage deep visual exploration of works of art. This acclaimed and extremely well-attended workshop revealed the artistic side of medicine and demonstrated a format that integrates medical practice, medical humanities, and art.

“Mirror, Lamp, and Lens: Art and Humanities in Patient Care and Provider Wellness” was led by Therese Jones, PhD. Dr. Jones is the director of the Department of Medical Humanities at the University of Colorado School of Medicine. Imaginative works serve as both an instrument for connection with others (our patients) and knowledge of self. This workshop initially introduced participants to the materials and methods of medical humanities. Subsequently, literature and art were discussed as vehicles to explore the fundamental aspects of human experience and to give voice to unarticulated responses to clinical work. The workshop closed with a brainstorming session discussing opportunities to introduce arts and humanities in clinical life, which is continued on page 13.
Training grants are valuable resources to start new training programs or facilitate innovative transformation of existing programs. Sometimes they cover only the salary of the trainees, and in other cases, they support the entire program infrastructure, including faculty and administrator salaries. Most training grants in general internal medicine are funded by the federal government (e.g. the Health Resources Service Administration [HRSA], the Agency for Healthcare Research and Quality [AHRQ], or the National Institutes of Health [NIH]). Occasionally, not-for-profit foundations may help fund specific types of training grants (e.g. American Cancer Society), but these are much less common than the opportunities funded by federal agencies.

Putting together a training grant holds the promise of expanding programs, attracting trainees, and supporting faculty to mentor and lead. This article shares wisdom learned after having submitted 20 training grant applications—16 successful and four unsuccessful—over the last 16 years focusing on learners ranging from medical students to faculty. Although the principal investigator (PI) of such grants could be a junior faculty member, it is important for the PI to show a track record of success in his/her field and to include experienced educators (or researchers) in both the grant writing team and training program that the grant is proposed to support.

The following action items will help you develop a successful grant application:

**Months to Years Before Submission**

1. **Keep a good record of past trainees and their achievements.** Training programs should maintain current contact information, achievements, faculty roles, and publications. NIH research training grants require detailed information about trainees from the previous five years or longer, depending on the grant. This is difficult to compile at the last minute, so this is one of the first steps to work on when even considering writing a training grant. It is useful to put this information in a table if not already required.

2. **Familiarize yourself with grant support services.** Find help at your home institution, and build local and regional networks for collaboration.

**After the Announcement**

1. **Make use of grant support services throughout the entire grant writing experience.** Many educators don’t avail themselves of institutional grant assistance because they either are not aware of it or they believe it is only for investigators. Our development office has a terrific grants team that helps gather letters of support from the dean and hospital CEO and also includes descriptions of the institutional environment. If not available, ask your department or division chair for support from an administrator who has submitted grants before. Experienced grant writers know how to manage page limits, font, and other formatting requirements. Include these team members from the beginning to help keep the grant application on track.

2. **Figure out the budget early.** Experienced grant reviewers will want to see that your proposed program is feasible within the financial constraints of the grant. This will also help frame the scope of the proposed project. All applicants have the same budget limitations, so applications that promote an ambitious but realistic project are going to be looked upon more favorably than others. Furthermore, some grants have very complicated formulas that divide the trainee grant between trainee-related expenses and faculty support (or other non-trainee costs). It is important to get the grants management office involved to discuss any questions about how to calculate the budget with the granting agency personnel early in the process. Often granting agencies will have informational webinars on the grant mechanism, and it is important that someone from the team participate in these sessions.

3. **Optimize the proposed number of trainees.** The mandate for almost all trainee grants is to...
events or complaints. These serve to define the context and content of the referral. The individual then meets with a remediation team that gathers a narrative reflection from the learner on challenges faced and events related to the referral, the time course of events, impact on work performance currently and in prior professional settings, and influence on personal life. The team also elicits a pertinent history of prior challenges and attempts at behavior change to address similar concerns as well as any other deficits or mental health issues that may be impacting performance. The individual is asked to describe several interactions and individuals that he/she has found challenging, and these situations are used in case construction for the remediation event. The goal of this assessment is to understand the personal and interpersonal challenges that the learner is facing as well as the context in which the behaviors occur. Through this assessment, patterns of behavior and contextual triggers are identified.

Within four weeks of the initial referral, the individual is invited to participate in remedial training at the Center for Advancing Professional Excellence (CAPE), which houses a state of the art simulation center, including standardized patients, who act as patients, colleagues, or others, and high-fidelity mannequins. The CAPE also provides a specialized case library and standardized patient team trained in remediation events for the campus and can record clinical interactions for review and assessment. Different simulation modalities are used to customize experiences for individual remediation needs, which often revolve around teamwork and collaboration and difficult or conflicted conversations. Providing feedback to the self—often involving a standardized patient engaging in behaviors similar to his/her own disruptive patterns—is a form of “teach back” that uses behaviorally focused feedback. This approach is considered essential to evaluating the effectiveness of the remediation event and the learner’s ability to learn and retain skills necessary to prevent or manage conflicted situations in the future.

A typical remediation process involves a deliberative cycle of three case-based interactions with goal setting, video review, and reflection followed by specific behaviorally focused feedback from the remediation team, standardized patients, and colleagues. The ability to record and review the learner’s performance in real time is critical to increasing his/her awareness of undesirable behavior and its impact on others. A customized checklist grounded in the Calgary Cambridge Framework is used for remediation to assess the learner and guide feedback. Cases progressively increase in complexity, with the final case reflecting the critical event that led to the referral and providing the participant with an opportunity to “do-over” the interaction and situation. After the final case, the remediation team and the learner debrief on performance, observations, recommendations for further skill development, and next steps with their referring program or unit. A written report with general and case-specific observations of the learner’s performance is sent with corrective and reinforcing recommendations to the referring program or unit for follow-up and support in the clinical environment. Most individuals require only one session for intervention, and progress is gauged through repeated contacts with the referring program or unit, review of subsequent evaluations, and presence or absence of recurrent reported events.

This remediation process—grounded in customized experiences, objective observation of skills, specific behaviorally focused feedback, a deliberate experiential cycle of multiple opportunities for learning and performance, and video review and reflection—has enabled the University of Colorado School of Medicine to support both learners and practicing physicians at many points in their professional development. The use of diverse simulation modalities enables highly customizable and authentic reconstruction of experiences, enhancing the efficacy of the remediation effort. In the last year, and as a result of this practice, the remediation team has seen increased requests for team remediation efforts as well as earlier awareness and intervention for learners and high-performing faculty. Although early feedback is positive, further study is needed to assess the effectiveness of this program on both short-term and sustained behavioral change.

References
In response to these challenges, I have employed three strategies to produce novel publishable work. The first is to use restricted data that are linked to publicly available data. Since there are barriers to accessing restricted data, researchers may have not studied these additional variables, thus making the chance that your research question is novel much greater. For example, NHANES includes genetic, geographic, mortality, Medicare claims, social security benefits, and air quality data that are not publicly available. In my prior work, I was interested in studying how health center use was associated with healthcare utilization and quality of care. Since patients often receive care relatively close to home, it was important to adjust for the distance between each patient’s home and his/her usual source of care. This type of analysis had not been done before and required restricted data from MEPS on health center and household addresses. Gaining access to the restricted data took time, effort, and planning, but because of the time I invested in the Agency for Healthcare Research and Quality (AHRQ) data center, I was able to produce new findings demonstrating that health center use was associated with lower utilization of care of the same or better quality.¹

The second strategy is to ask questions that require the combination of more than one dataset. Since cross-sectional analyses are relatively easy, many will have already been done using national datasets. However, asking important but more complicated research questions that require longitudinal data leverages the benefits of panel data and increases the chances that your question will be novel. For example, MEPS is a set of nationally representative two-year panel surveys, but many researchers only include one year of MEPS data in analyses, which ignores the benefit of MEPS’ longitudinal insurance data.

The last strategy is to use lesser-known datasets. One of the first things I did after I decided to use a national dataset was to research publicly available datasets to understand the range of questions that could be answered with these sorts of data. As a result of this search, I worked with data from the NSHAP (http://www.norc.org/Research/Projects/Pages/national-social-life-health-and-aging-project.aspx), which is a lesser-known, longitudinal, population-based dataset of health and social characteristics of older community-dwelling US adults.²

To get started using large datasets, it is important to familiarize oneself with the datasets and what they have to offer. I have found that each dataset has unique opportunities for establishing inclusion and exclusion criteria (e.g. race/ethnicity, age groups, households, doctor visits), years of data, and sources of variables (e.g. patient self-report, laboratory, examination, visits). In order to find a research question that has not been previously studied, I try to see if the data have been linked to other datasets. For my first large dataset project, I looked for a relatively “beginner-level” dataset to get my feet wet. NHANES, for example, has a very easy-to-follow tutorial on its structure and also a listserv that new researchers can join. Lastly, as with all research projects, it is crucial to do a literature review, but the literature review for using datasets is a little different. I have found it extremely helpful to do a literature search on prior use of the dataset in order to find out how user friendly it is and to understand its lesser-known features.

Just like every other research project, large dataset research takes time, energy, and interest. As a data-driven clinical researcher, I seek out opportunities to use data in my everyday life, and so I enjoy the type of work that large datasets require. With creativity and passion for discovery, I think that large datasets provide an immense opportunity to produce meaningful research.

References
strategic advice and counsel but will not actively promote a position. The most resources go to issues central to SGIM’s mission that are not covered in depth by our allies. For example, paying general internists appropriately is addressed by active advocacy, funding the NIH CTSA program is pursued with coalition advocacy, and improving patient access with insurance reform falls under monitoring advocacy. SGIM’s lobbying firm complements our internal volunteer expertise, allowing SGIM to have a constant presence on Capitol Hill. The advocacy firm and SGIM receive information on current and emerging issues, educate legislators on general issues and specific pieces of legislation, and collaborate with other friendly organizations on areas of shared interest.

I’ll give a couple examples of how SGIM as an organization is involved in advocacy. As of early July 2015, AHRQ experienced the most serious threat to its existence in years. The House Committee on Appropriations recommended zeroing out AHRQ’s budget while its Senate counterpart proposed a significant reduction. SGIM’s Health Policy Committee is currently acquiring more information and planning our advocacy. Part of the effort will be coalition advocacy. An organization named Friends of AHRQ coalesces the many organizations and stakeholders that support AHRQ. Friends of AHRQ has organized a campaign to get organizations to sign a letter of support for AHRQ and is actively reaching out to legislators on the Hill. Some of SGIM’s efforts will be as an individual organization. We are currently gathering information to better understand the opposition of the House and Senate to AHRQ, which legislators may support AHRQ, and AHRQ’s position within the wider Department of Health and Human Services. Several months ago, former SGIM president Eric Bass and former Health Policy Research Subcommittee chair Gary Rosenthal met with AHRQ Director Richard Kronick to discuss concerns that were raised when SGIM members spoke with their legislators and staff about AHRQ during last spring’s Hill Day. Funding for AHRQ was one of the priority issues on Hill Day.

The AHRQ example relates to advocacy for legislative funding, and the second example is policy advocacy within the profession. Most of you are probably familiar with the current controversy over the American Board of Internal Medicine’s Maintenance of Certification (MOC) program. While the MOC program has multiple important challenges, SGIM Council believes that we should focus our efforts on helping design what an ideal version of MOC would be. SGIM meets yearly with the leadership of a number of other key professional organizations. At last April’s SGIM Annual Meeting in Toronto, we met with SGIM member Bob Centor who was representing the American College of Physicians (ACP) as the chair of their Board of Regents. Bob invited SGIM to partner with ACP as they begin an effort to inform ABIM on the future of the MOC program. SGIM has a MOC Task Force, and SGIM Council has charged our task force and Chair Eric Green with representing SGIM on this important joint ACP-SGIM working group.

I’ll end by giving my advice on how to get further involved in SGIM’s advocacy efforts, which is something that I think you will find interesting and rewarding. First, participate in SGIM’s spring Hill Day. Here, you will travel to Washington, DC, quickly get trained in Advocacy 101, and then spend the day on the Hill meeting with your House and Senate legislators and staff to discuss a few key issues important to SGIM and general internal medicine. Many of us initially feel intimidated by the idea of political advocacy. Nothing demystifies the process and gives you confidence in your ability to participate in and influence the political process like talking to your elected representatives on important issues. Plus, it’s fun. Everyone I am aware of who has participated in a Hill Day has enjoyed the event. For those of you specifically interested in health policy, join the Health Policy Committee. I’ve participated on this committee for the past two years and have learned an immense amount about the political process and specific issues by listening to, observing, and getting the advice of the committee. The committee is friendly, productive, and eager to welcome new members. To join the Clinical Practice, Education, Research, or Outreach Subcommittees, contact Francine Jetton at jettonf@sgim.org.

For those of you interested in advocacy for policies in specific areas such as education, equity, or aging, volunteer for the related SGIM committee, task force, or interest group, and then do a good job. Years ago I ran for Midwest SGIM Council twice and lost both times. I wanted to get more involved in SGIM, so I volunteered for a variety of regional and national activities and gradually got to know the organization well. If you do a good job in whatever you volunteer for, people will take notice, and you’ll have more opportunities over time. SGIM is an easy organization to get involved with, and it does not take long before you can contribute and represent SGIM in important professional and policy advocacy efforts. Also, submit abstract and workshop applications on the topics of your advocacy interest to influence the program content at your regional and national SGIM meetings.

Finally, get more training in the different skills necessary for successful advocacy. Take workshops at the SGIM Annual Meeting on Advocacy 101, communicating with the media and lay community organizations, and writing op-eds and commentaries on specific policy topics. Many of your local institutions offer related training on topics such as being interviewed by the press; some have government relations departments that can support your advocacy. SGIM’s committees, task forces, and the annual program committee are in
sions of hemodialysis, the salicylate levels normalize.

Management of salicylate toxicity consists of: 1) detoxification with activated charcoal; 2) alkalinization of urine, although hypokalemia must be corrected in order for alkalinization to be effective; and 3) hemodialysis when the patient has altered mental status, pulmonary or cerebral edema, renal insufficiency, fluid overload, a serum salicylate level greater than 100 mmol/L in acute overdose, or clinical deterioration despite aggressive supportive care.

Aspirin is a commonly used medication and is frequently associated with intentional and suicidal ingestion. The classic presentation of salicylate toxicity is anion gap metabolic acidosis secondary to salicylic acid, lactic acid, and ketones in addition to respiratory alkalosis and respiratory acidosis. Our patient had an anion gap of 6 with hyperchloremia (116). Renal, central, and other causes of hyperchloremia were ruled out with history, physical, and labs. On review of prior case reports, similar elevation of serum chloride has been reported and is a lab error due to high concentration of salicylate.¹ Our lab uses the Roche Cobas Integra analyzer, which has been known to cause falsely elevated chloride levels in the presence of elevated salicylate levels.²

**Take Home Points**
1. Aspirin toxicity can present as non-anion gap metabolic acidosis.
2. Lab results can “over-measure” serum chloride, explaining “pseudo-normal” anion gap in the setting of salicylate toxicity.

**References**

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**CANCER TOPICS FOR GENERAL INTERNISTS**
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Cancer Survivorship in Primary Care has a website that serves as a one-stop repository where primary care providers can access resources for medical information and clinical guidance.
http://www.cancerpcp.org

The Children’s Oncology Group Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent, and Young Adult Cancers is a resource for health care professionals who provide ongoing care to survivors of pediatric malignancies.
http://www.survivorshipguidelines.org/

From Cancer Patient to Cancer Survivor: Lost in Transition (Institute of Medicine video)

UpToDate® is an evidence-based resource aimed at helping clinicians make decisions in clinical practice and now includes a section on cancer survivorship, with an expanding list of topic reviews.
http://www.uptodate.com/contents/search?search=cancer+survivorship&x=0&y=0

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**FROM THE REGIONS**
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so much needed in this time of patient-centered health care.

Evaluations were completed by 10% of attendees who ranked the meeting, keynote, and plenary sessions and workshops as “truly above average” or “outstanding.” Comments included: “the art and humanities workshops were outstanding”; “oral presentations were great and very pertinent to our practice”; “amazing cases and research presented in poster session”; and “I really enjoyed the outpatient and inpatient review of new literature.”

In summary, our 2014 meeting set a new attendance record for our region. We would like to give special thanks to our outstanding speakers, Drs. Moran, Heist, and Schilling, as well as to all of the SGIM members who contributed their expertise as workshop leaders and participants. Please consider attending our 2015 regional meeting, “Controversies in Medicine,” which will take place on October 2, 2015, at the Fulginiti Pavilion, Anschutz Medical Campus, in Aurora, CO. The meeting will be chaired by David Tanaka, MD, with support from the regional leadership team: Maria G Frank, MD, president; Amber Wobbekind, MD, past-president; and Shakaib Rehman, MD, president-elect.
expand the number of qualified professionals—this is true no matter the field. One must navigate the tension between aiming for a sufficiently ambitious number and being able to realistically fill those slots. When applying for a grant that highlights research mentorship, there needs to be an appropriate ratio—at least 2:1—of potential faculty and mentees, as some faculty may not be available or a good fit for all trainees. For grant renewals, one of the criteria will be whether the applicant filled the number of funded slots in the prior cycle. There is also a tension between in-depth focus on a few trainees (i.e. fellowship program) and opportunities to reach much higher numbers of trainees through technology (i.e. online modules for medical students). Some grants will naturally limit this by focusing on specific groups of learners (e.g. T32 for post-doctoral fellows), but others may leave it open. Justifying the numbers of learners and highlighting the fit with the grant purpose is the key.

When Starting to Write
1. **Focus on the grant review criteria.** The grant review criteria and scoring are important to consider early and often! Make sure that the grant application explicitly keys in on the scoring criteria, making it very clear to the reviewers how and where the grant proposal addresses those criteria. At times, we have made a table with the page numbers or sections cross-referenced against the scoring criteria. Foundations want to know how their money is funding their key priorities.
2. **Be innovative.** Most granting agencies are looking for programs that are truly innovative and will make a difference. Grants should expand and improve training programs to meet the current health care environment whether it is research or clinical training. The innovation should draw on the applicant’s strengths, particularly those of the faculty. For example, we have drawn upon our work with health care disparities in urban populations to frame much of the innovation in prior grants. This is also a good opportunity to create new collaborations. Many HRSA grants require interdisciplinary applications, which create the ideal opportunity to reach across the silos in academic medicine. It is sometimes challenging to write a collaborative grant if collaborative relationships don’t already exist. I have had the experience of writing such a grant before the relationship was established, and the grant was not funded. However, at the next cycle, the relationship begun in the first grant cycle blossomed and allowed for a truly innovative and collaborative proposal. The grant writing itself develops the collaboration and sometimes can lead to unexpected positive outcomes, so it is useful to reach out even if the end result is uncertain.
3. **Sell your strengths.** Successful programs or even new programs all build on their past successes, and this is important to showcase in an application. A corollary is that the key strength for training grants is generally the faculty and staff available to lead the program and mentor the trainees. Applications should detail information on the faculty, including their accomplishments and how those accomplishments fit into the goals of the proposed application. Include all potential faculty members who might help sell the grant, but be sure to include only faculty who are actually involved in the program.

Reviewers can see through falsely padded applications.
4. **Include robust evaluation plans.** Utilizing an outside evaluator to aid in evaluation has been highly rated in our prior reviews. We had an evaluator who retired and had difficulty finding another to replace her, so we began inviting directors from other programs to review our proposal as well as internal documents and annual ratings of the program. This has proved fruitful not only in name but also in practice in that we are able to benchmark ourselves against other programs and also get practical tips and advice from those programs. Another evaluation option is to include yearly reviews by trainees and faculty of the training program, similar to those done in Accreditation Council for Graduate Medical Education (ACGME)-accredited training programs. These evaluations can then be reviewed and organized into action plans.

5. **Don’t give up!** Even if the grant is not funded, good ideas generally will stand the test of time. Consider reapplying in the next cycle, having carefully reviewed the feedback from the unfunded submission. Talk with the project officer to understand the feedback you have received and understand the areas of weakness that prevented it from getting funded. I applied multiple times for a particular grant mechanism that was eventually funded with an improved application.

While addressing these three phases of proposal preparation, do not forget to have fun and enjoy the endless possibilities for impacting new groups of high-quality trainees. The hard work you put into this process can reap rewards for many generations of physicians in training to come.
University of Cincinnati College of Medicine
General Internal Medicine Opportunities as Academic Hospitalist

The Section of Hospital Medicine at the University of Cincinnati College of Medicine, Cincinnati, Ohio, is seeking Board Eligible Internists to join our faculty as academic hospitalists. Hospitalist faculty are members of the Division of General Internal Medicine, which performs the bulk of resident and student teaching for the Department of Medicine.

Responsibilities include:
- Providing patient care in several settings, including attending on traditional resident-led ward teams, attending on the resident-led medical consultation service, and leading a hospitalist team including an intern;
- Teaching in our Internal Medicine Residency program which has been granted status as an ACGME Educational Innovations Program; and
- Teaching medical students on clinical rotations.

Academic opportunities include:
- Direct teaching of medical students in all four years of our new clinical curriculum;
- Collaboration with researchers in our Center for Clinical Effectiveness and Center for Health Informatics; and
- Participation in Hospital quality improvement activities.

Opportunities also exist for training in Improvement Sciences and traineeships with mentored research experiences in Outcomes and Clinical Effectiveness leading to a Master’s degree in Clinical and Translational Research.

Our hospitalists are leaders in improving both patient care and clinical processes at the University of Cincinnati Medical Center and have a passion for teaching and improving patient care.

Salaries are competitive, with opportunities for increases based on productivity.

If you are interested in joining the University of Cincinnati in Hospital Medicine, applicants should contact: Mark Eckman, Director, Division of General Internal Medicine via email at Mark.Eckman@uc.edu.

We are recruiting for immediate availability. The University of Cincinnati is an affirmative action/equal opportunity employer.
the process of developing a variety of career development curricula that will cover topics important for advocacy. In addition, SGIM is blessed to have many master advocates from whom we can all learn. For example, John Goodson has devoted much of his career to advocating successfully for fair reimbursement for primary care physicians, and Oliver Fein has been a lifelong advocate for social justice in health.

Sometimes people will question whether they can truly be influential as an advocate. Is it worth the effort? The last week of June 2015 was a good one for progressives. The Supreme Court upheld the ACA and a housing anti-discrimination law and legalized gay marriage nationwide. Why did this occur in a court with stark ideological divisions that mostly leans conservative? Several years ago, I asked one of my friends who is a law professor why the Supreme Court didn’t more frequently stand up for justice. My friend told me that conceptions of justice are always contested and evolving. Public opinion inevitably affects the justices, so the Court’s stance often shifts as public attitudes develop. The progressive Supreme Court decisions on the ACA, housing discrimination, and gay marriage reflect the culmination of short- and long-term advocacy efforts. This advocacy led to dominant national attitudes supporting health insurance coverage for millions of ill Americans, preventing discrimination in access to housing, and affirming love and commitment to life partners, regardless of sexual orientation and gender identity. Each piece of advocacy and effort to speak out over the years was critical in creating the environment in which a generally conservative Supreme Court felt it was the right decision to uphold these ideals. Yes, advocacy makes a difference, and we are all advocates in SGIM.