The internal medicine residency review committee (RRC) has just issued its new requirements for residency training. These include an attempt to lessen the difficulty many programs have in meeting requirements for continuity clinic. Instead of 108 weeks in which a continuity clinic must occur, spread over three years, the RRC will require of residents 130 individual continuity clinics over 30 months (with no period longer than a month without continuity clinic). This change will make it easier for programs that have trainees in clinic more than once a week to meet continuity clinic requirements.

Continuity clinic has generated ambivalence among trainees and faculty since it was mandated for internal medicine training in the 1970s. Trainees have appreciated the chance to develop relationships with patients over time—relationships impossible to achieve during brief inpatient hospitalizations. However, trainees and faculty alike have often been frustrated by the corrosive effects of continuity clinics during busy ward rotations. The new requirements for continuity clinic will ease those frustrations without eliminating them.

The RRC needs to rethink its commitment to continuity clinic. As we have argued elsewhere (Huddle TS, Heudebert GR. Internal Medicine Training in the 21st Century. Acad Med 2008;83:910–15), continuity clinic as presently organized in American internal medicine residencies is not the right strategy for achieving its stated purpose—equipping trainees for excellence in the comprehensive ongoing care of adult patients. Advocates of continuity clinic often emphasize the divergence between the problems of clinic and those of the wards, implying that substantial time devoted to continuity clinic is necessary for competence in caring for outpatients. We agree that problems unique to the ambulatory care must be grappled with in the outpatient setting for proper learning to take place. Still, broader claims that clinic and ward medicine have little overlap and that continuity experience is necessary for competence are mistaken.

Contemporary trends toward having sicker patients on inpatient wards for shorter stays have been much remarked upon. The effect of those trends on outpatient clinics has generated less comment. Nonetheless, outpatient clinics attracting the complex patients now often seen on inpatient wards have become much more challenging to trainees, as problems that formerly might have been dealt with in the continued on page 13
The Core of Continuity
Carol Bates, MD; Eric Green, MD, MSc; and Christopher Knight, MD

As internal medicine residency education advances into the 21st century, learning value—rather than sentiment or inertia—should dictate content. What, then, is the unique value of a continuity clinic that cannot be found in inpatient or outpatient block activities? The core feature of continuity clinic is the long-term connection between doctor and patient. This relationship allows the trainee to observe the natural history of disease and the consequences of decision making that can only develop over time. It also facilitates a continuity relationship with faculty so that residents’ clinical skills can be serially observed, assessed, and guided.

In the modern era of shorter inpatient stays and bursts of episodic outpatient care for complex medical problems that might formerly have required hospitalization, residents (and attendings) have an appropriately narrow focus of care. There is little attention to chronic disease management or the host of concerns seemingly minor to doctor but major to patient. In continuity clinic, we introduce core concepts in chronic disease management, including the sense of responsibility for the entirety of a patient’s medical story, the ownership of issues in disease prevention, and the ability to manage complex patient agendas. Patient ownership fosters responsibility for outcomes that residents will otherwise never experience. Many graduates will ultimately follow a panel of patients for chronic disease and will need to be proficient in these skills.

Our residents continue to form substantive relationships with their continuity patients despite the considerable challenges within the system. These bonds, often poignantly expressed during the parting between resident and patients upon graduation, enhance the humanism of our residents and immunize them against the depersonalization seen in inpatient and outpatient care where patients cease to have individual identities and become “the uncategorized diabetic” or the “metastatic cancer of unknown primary.” In continuity clinic, the unit of learning is the patient, not the admission, the tem. These bonds, often poignantly expressed during the parting between resident and patients upon graduation, enhance the humanism of our residents and immunize them against the depersonalization seen in inpatient and outpatient care where patients cease to have individual identities and become “the uncategorized diabetic” or the “metastatic cancer of unknown primary.” In continuity clinic, the unit of learning is the patient, not the admission, the visit, or the disease process.

We also need to consider the impact of resident experience on career choice. We would never expect residents to opt for a career as an intensivist if they had never worked in an ICU. If we are to encourage any internists to choose a career in primary care practice, we must expose them to the joys of primary care practice in residency training while we work to continually improve our systems of care.

continued on page 7
Tuning the Medical Workforce: Counting Proportions is Important But Not Enough
Lisa Rubenstein, MD

If we thought about training as a way to program our brains’ software, we might use different heuristics to program for primary care than for subspecialty practice.

What if you took an orchestra and quit allocating how many violins or trumpets there were? What if you just let the players join in as they wished? Perhaps someone then decided that brass instruments should be paid three times as much as stringed. Pretty soon, new players might gravitate to the brass. What if the orchestra’s board decided it would be easiest and fairest to pay per note played? Even with excellent players, the noise would be awful. What if you applied the same logic to medicine? Sounds ludicrous, yet the public seems surprised that unplanned medical workforce allocation and management in medicine doesn’t work.

We know we have too few generalists. Like an orchestra that has somehow become two thirds brass, US medicine consists of nearly 70% specialists, and that number is rising (http://www.cogme.gov/report16.htm). A recent analysis of workforce specialists, and that number is rising somehow become two thirds brass, specialists. Like an orchestra that has

ment in medicine doesn’t work.

As an example, I once worked with other generalists to help internist sub-specialists transition to part-time primary care practice. I thought they would find the transition easy. To my surprise, we were mostly unsuccessful in helping them to feel confident as generalists; they were uncomfortable even supervising residents without a generalist co-attending. I began to realize that internal medicine subspecialty training doesn’t just add more knowledge to general medicine training.

To solve our workforce issues, we need to discover on a deeper level how education and training shape clinicians. This knowledge can help in matching workforce skills to patient needs and in avoiding unnecessary turf battles among special-

ties. I suspect, for example, that subspecialty training and experience change patterns of information processing. As a general internist, I am comfortable dealing with a full biopsychosocial range of conditions in part because I think in algorithms and probabilities. These tools help me rule out serious conditions. I suspect sub-specialists depend more heavily on a different set of skills, such as those related to ruling in their target conditions. If we thought about training as a way to program our brains’ software, we might use different heuristics to program for primary care than for subspecialty practice. Differences such as these might help explain why medicine doesn’t function well as a mini-mart where patients access a series of specialties and what each profession is 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. 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 (phuNguyen@gmail.com).
INPATIENT MORNING REPORT

Vertigo and Facial Droop in a Woman with Cardiovascular Risk Factors
Nirali Desai, MD (presenter), and Jorge A. García, MD (discussant, in italic)

Dr. Desai is a PGY2 resident in Internal Medicine at Emory University. Dr. García is Associate Professor of Clinical Medicine at the University of California, Davis.

She certainly could have a simple facial nerve palsy, but her worsening vertigo and concomitant headache argue against this diagnosis and support a more concerning, central etiology.

A 59-year-old Bangladeshi woman presents with seven days of worsening vertigo, lightheadedness, and generalized weakness. She has experienced intermittent vertigo and lightheadedness for several years, which have worsened over the past week, especially with walking. Two weeks prior to admission, she had several days of cough and subjective fever, which have now resolved. Six days prior to presentation, she developed a left-sided facial droop and an occipital headache (constant, throbbing, and 5/10 in severity). On the day of admission, she had a presyncopal episode following hemodialysis.

The patient’s past medical history includes type 2 diabetes mellitus, hypertension, end-stage renal disease on hemodialysis, dyslipidemia, hypothyroidism, and anemia of chronic disease. She takes diltiazem, metoprolol, lisinopril, losartan, rosvuastatin, ezetemibe, levothyroxine, and insulin.

She was born in Bangladesh and emigrated to the United States 20 years ago. She is a homemaker and lives with her husband; she has never used tobacco, alcohol, or illicit drugs.

This middle-aged woman presents subacutely with a new facial droop, an occipital headache, and worsening vertigo. Given her multiple cardiovascular risk factors, the worst case scenario is that she has had an acute ischemic or hemorrhagic stroke compromising her facial and vestibular function. In this light, the presence of headache raises concerns for a hemorrhagic event.

The presence of a new facial droop and vertigo suggest the possibility of herpes zoster oticus (Ramsay-Hunt syndrome). An activation of latent herpes infection in the geniculate nucleus, this syndrome is usually heralded by severe ear pain (lacking in this case) and herpetic vesicles on the auricle and in the auditory canal.

After considering these unifying features, we should independently consider the main features of the case—vertigo and facial droop—to explore other potential etiologies for her symptoms.

Vertigo is caused by labyrinthine and vestibular nerve disorders (peripheral causes) or by disorders in the brainstem’s vestibular structures (central causes). Peripheral vertigo accounts for 80% of cases and is most commonly due to benign positional vertigo, vestibular neuritis, labyrinthitis, or Meniere’s disease. Central vertigo is most commonly caused by migraine, brainstem ischemia, cerebellar infarction, or multiple sclerosis. The patient’s preceding respiratory illness makes labyrinthitis or neuritis more likely, and it would be helpful to know whether her vertigo is positional. The fact that she has had intermittent vertigo for many years might lead us to consider lowering the importance of this symptom in this case, but the presence of her other neurologic symptoms should compel us to avoid hastily dismissing this feature.

The patient’s new facial droop is another prominent feature in this case. Lower motor neuron lesions cause upper and lower facial palsy. In contrast, due to crossover in the brain, innervation (and thus motor function) of the forehead is maintained in upper motor neuron lesions.

The results of her cranial nerve examination should provide us with important information. Of course, this woman needs a complete neurologic exam. Given her vertigo, a Dix-Hallpike maneuver can assist us in characterizing her vertigo as peripheral or central. Her left ear should be carefully examined for evidence of vesicles, and her tympanic membranes should be evaluated for evidence of otitis media.

On physical examination, she is an overweight woman in no acute distress. Her temperature is 36.6, pulse is 46 and regular, blood pressure is 153/67 with negative orthostatic, respiratory rate is 18, and oxygen saturation is 98% on room air. The pupils are 3 mm, equal, round, and reactive to light; extraocular movements are intact. Cranial nerves are intact with the exception of left CN VII. There is an obvious left-sided facial droop, and she is unable to wrinkle her forehead, close her eyelid against resistance, or turn her mouth on the left side. Her ear exam is normal, and no parotid mass is noted. Cardiac exam reveals a 2/6 holosystolic murmur loudest at the apex that radiates to the axilla. Lungs are clear. Abdomen is obese, nontender, and reveals no hepatosplenomegaly. She has a left arm AV fistula. There is no edema. On neurologic exam, strength is 4/5.

continued on page 12
Part II: Two Mentors Weigh in on Questions Commonly Facing Junior Faculty
Jeffrey Samet, MD, and Rick Deyo, MD, in conversation with Caleb Alexander, MD, MS, and Stefan Kertesz, MD, MSc

Last month we began an interview with Drs. Samet and Deyo regarding questions that junior faculty commonly face when developing their research careers. We now pick up where we left off last month . . .

Is there a certain threshold of protected research time that is absolutely required in order to be successful forging a career in health services research?

Samet: I would say that the optimal range of time dedicated to research that would enable pursuit of a clinical research career in general internal medicine is 70% to 80%. It could be pursued with less, but it would be very challenging with less than 50% effort focused on research activities.

What are the most important things the researcher should focus on during their first few years on faculty?

Samet: Make sure that papers from fellowship get submitted for publication and find a home. Identify a research area of focus and seek opportunities to pursue new projects within it. Find a local mentor; maintain previous relationships [or develop new relationships] with mentors not at your home institution. Write manuscripts and submit grants, but keep these at least broadly speaking within the realm of your area of focus. While working hard on these research pursuits, do not shy away from being a good citizen and contributing to the ever-present academic mission of high-quality education for students and residents as well as excellent patient care. If it sounds like a lot, well, it is; but it is very satisfying as well.

What if they don’t publish? Is it possible to have a career as a researcher without publishing? How about grants? Are these essential if you want to succeed at research?

Samet: If you “don’t publish,” then you do not have a research career. Without grant support, it is not possible to have a productive academic research career. One can, however, make substantial contributions in research without being the principal investigator of a research project; nevertheless, it is essential to write.

Deyo: No and yes. If you don’t publish your work, then as far as the rest of the world is concerned, it never happened. I think there’s an ethical obligation to publish good research because without it, anyone interested in the same questions is doomed to spend his/her time and resources repeating what you’ve done. Publishing isn’t just an exercise for vanity, self-aggrandizement, or promotion committees!

Grants are indeed essential if you want to succeed at a research career. Most institutions aren’t willing to pay for your time unless it generates revenue. For most of us, this means seeing patients or bringing in grants. Even if you have the support of an incredibly well-endowed institution that’s willing to pay your salary, most significant research requires assistants to help gather data, coordinators to manage day-to-day operations, and a range of consultants to help with analysis and methods. Those take money, and that takes grants.

NIH funding has been euphemistically described as “unfavorable” and may be especially tight for new investigators. In your view, how likely is it that a promising new faculty member, with the right preparation and training, might end up not achieving the level of external funding support that he/she typically has to commit to achieving as part of a first job? What are the responsibilities of the hiring institution in that situation?

Samet: Research funding seems to go through cycles, perhaps like the stock market. During tough times, it seems to never end. People do decide to pursue other non-NIH opportunities at times like these. That said, opportunity does still exist for bright industrious young researchers, particularly those with a focus on pressing public health issues. As for the hiring institution, it will want you to be successful, but its investment in you will depend on concrete evidence that you are likely to succeed in time. Evidence is typically paper productivity, grant submissions, solid citizenship, and ultimately grant funding.

Deyo: Yeah, funding is tight and will probably stay that way for the foreseeable future, given the state of the economy. Nonetheless, for someone with “fire in the belly” for research and good training, I would counsel persistence and flexibility. We’ve all had surprises and disappointments and had to make alternative plans at various points in our careers. Making a career of research is really a marathon rather than a sprint.

Responsibilities that the hiring institution will accept will vary. Ideally, the institution will provide substantial salary support until someone is able to get funding. At the very least, most institutions will allow a shift of daytime activity to clinical work in order to sustain a salary. However, this takes time away from continued on page 13.
It is a familiar story. A young internist is hired as a general internal medicine faculty member. He is a good clinician and a good teacher with no research or writing experience. Ward assignments and clinic duties take up much of his time, and physical diagnosis courses need faculty teaching. Money and billing issues make generating part of his salary a high priority. His yearly contracts depend on productivity. Years go by and suddenly the issue of promotion to the next academic level arrives. With a few case reports, no time to attend regional (let alone national) meetings, and private patients demanding time, promotion gets delayed. A great clinician but still an assistant professor.

It is another familiar story. A young internist with academic training in clinical research and writing skills is hired as an academic internist. Time is protected for meetings to facilitate extramural contacts and small clinical trials. Research grants are written; some are denied funding, but with experience more become successfully funded. Original publications begin to accumulate. Time attending on inpatient services and clinics is minimal because of research commitments. Years go by, and suddenly the issue of promotion to the next level arrives. Promotion occurs easily. It has been years since the internist has attended on the wards, and clinic time has all but vanished. Clinical skills have become very rusty, and the internist loses confidence in caring for critically ill patients. Clinical activity stops.

Who is more valuable? Medical schools and residency training programs need full-time clinicians. Clinicians need outcomes trials by academicians to help guide their treatments. The answer clearly is that both are valuable. How can a full-time clinician get promoted, and how does a full-time researcher keep his/her clinical skills from fading?

Many academic institutions now have clinician-educator tracks as well as more traditional research tracks for promotion and tenure. Most institutions have printed promotion guidelines that list specific required and suggested goals before promotion is considered. These guidelines should be required reading for all faculty members. They need to be discussed and reviewed annually at promotion to the next academic level. Specific plans for peer-reviewed publications, extramural meetings, and involvement in professional organizations are crucial. Participation in inpatient and clinic attending duties must continue.

For example, a typical peer-reviewed publication requirement for promotion to the professor level as a clinician-educator is six to 10 first or senior author manuscripts and 15 to 20 total publications. A junior faculty member who does one or two a year can make this mark easily by the time professor level is considered.

Joining the Society of General Internal Medicine and attending a regional and national meeting once a year helps establish extramural contacts and facilitates national reputations.

As an investigator, participating in clinical conferences on a regular basis, attending morning report, and spending some time on ward rounds or in the clinic should be sufficient to keep clinical skills sharp.

Senior general internists have a more difficult task. Many had no guidance throughout their careers, and promotion guidelines were not available. They now watch as much more junior faculty rise up to higher academic ranks, with their clinical skills gone or their writing skills dormant. What they can do is mentor their new faculty in hopes of finally turning the corner on the difficult task of promotion and tenure in general internal medicine.

**President’s Column**

continued from page 3

brings to the table. I once reviewed curricula for some medical and non-medical health professional schools and was struck by the frequent lack of links between curricular goals and what was actually covered with students. If we compared actual training across professions, we might be better at tuning the medical workforce to patient needs. By knowing in detail what each partner offers, we could also get much more creative and efficient about how we collaborate across medical professions.

Just coming up with figures on needed specialty mix won’t be sufficient to improve practice or plan for new models of care, such as the patient-centered medical home. Based on knowledge of what each professional group offers, we can understand and communicate to the public why the negative health effects of poor inter-specialty balance shown in research occur. We need to help the public understand the medical community as more like an orchestra than a set of soloists. Finally, we need to work toward clinical payment methods and training that reflect the strengths of each training path and support integrated collaborative clinical care that matches patient needs.
The Dark Side of “Focus”

Paul Haidet, MD, MPH

Dr. Haidet is Staff Physician, DeBakey VA Medical Center, and Associate Professor, Baylor College of Medicine.

Okay, here it comes; get ready for the blasphemy. Reading through “Promotion in Academia for the General Internist,” I think that there is an elephant in the room. It seems to me that a major problem for general internists (and general pediatrics, family practitioners, and other academic primary care physicians) is that things have become so focused (so specialized, if you will) that all chances for academics to “cross fertilize” are being lost. The researchers are funneled toward a future that no longer has practice as a part of it, the clinicians are funneled toward a future that contains only practice (and maybe a little direct teaching), and the “big E” educators are funneled toward mostly educational administration (clerkship directors, residency directors) because most of the other educational activities have little “value” to the powers that be.

I lament the loss of the days of the “triple threat”—not because I think that everyone should do everything but because insight in one area is often fueled by experience in the other two. I remember a mentor years ago telling me to get rid of my practice as soon as I could because it was perceived as a distraction to my research career. There was also the sense that if I didn’t put every waking moment into that research career, my grants could not compete against those of someone who spent all his or her time focusing on grant writing. I am glad that I did not follow that path. I have continued to gain inspiration for research from both my practice and my teaching experiences.

I think that a generalist in the true sense—one that focuses in one area but has the time and space to remain conversant in the other two—is a real asset to an academic medical center. I would welcome an opportunity to live in a division where the researchers, educators, and clinicians do not have such large silos around them and could interact in both formal and informal settings about a great many things—research, education, and practice. The fact remains that the educators could teach the researchers a thing or two about the design of their interventions (many of which are educational in nature), the researchers could teach the educators a thing or two about the evaluation of their innovative teaching activities, and the clinicians could teach everyone about what topics and issues are really important after all. Having at least a foot in each world is a good thing. Unfortunately, the “true generalist” is an identity that is disappearing. Junior faculty are taught to hone their focus to a sharp knife edge and to spend all their time working on that focus. In this sense, generalists are beginning to look like specialists—at least as far as their process toward promotion and academic success is concerned.

What would it be like if the world made opportunities so that we could spend a little less time on our “primary thing” and a little more time remaining conversant in the other two? I would argue that not only would the generalists benefit, but the academic medical center would as well because the cross fertilization that would occur would enhance all three missions. Like all things in life, focus is good only if taken in moderation.

COUNTERPOINT

continued from page 2

The fact that a resident is present in practice less often than a full-time physician based in a single office does not imply a failure of continuity. Many internists have fragmented schedules. Academic clinician-educators with substantial teaching and administrative roles and clinician-investigators see patients as infrequently as once or twice weekly. Other physicians in both academic and non-academic settings may work part time, work from multiple geographically separate offices, or take medical or maternity leaves. These practices have developed systems to allow for team-based care using episodic care by other providers and communication strategies using email and electronic records. Resident practices should employ such systems and train residents how to function effectively in a team-based ambulatory environment while preserving a continuity relationship with the patient.

Further, chronic medical ailments generally do not require daily, weekly, or often even monthly return visits with a physician but rather periodic visits with a PCP and other members of the medical home. The results of a change in diabetic regimen really aren’t appreciated on an inpatient stay in controlled conditions but rather with an iterative series of interventions over time. The pitfalls and rewards of managing chronic disease in concert with the patient are best experienced in the setting of an ongoing longitudinal relationship.

The ideal structure to foster a continuing doctor-patient relationship within an internal medicine residency has yet to be defined. New RRC regulations allow for models that go beyond the traditional weekly clinic. The RRC’s Education Innovation Project has allowed several programs to innovate in this realm already. Four programs have moved from weekly continuity clinic to models where there are “bursts” of outpatient continuity time interspersed with times when residents are solely devoted to inpatient care. The University of Cincinnati has moved to a year-long model of...
FROM THE EDITOR

My Top Blogs for General Internists
Robert Centor, MD

Many readers know that I started a medical blog more than six years ago. Since starting the blog, I have written more than 3,600 entries. But blogging requires more than writing. Good bloggers do much reading also. I have a collection of blogs that I read regularly. I highly recommend these blogs for your consideration and will provide some context for each blog.

The ACP Advocate Blog by Bob Doherty
http://blogs.acponline.org/advocacy/
Bob has worked on internal medicine for many years—first with American Society of Internal Medicine (ASIM) and now with American College of Physicians (ACP). He has extensive knowledge of the political process. He works in the Washington office of ACP to advance a general internal medicine agenda. Bob started this blog on October 29, 2008. This blog has become my first must-read blog each day. He is doing a wonderful job of keeping me informed of the possible solutions to our health care situation. Some recent post titles include: Will single payer advocates get behind Obama-style health reform? Who should pay for coverage? Senator Baucus’ Answer to Who Should Pay for Primary Care.

Bob’s posts reflect his long experience and knowledge of the political process.

KevinMD
http://www.kevinmd.com/blog/
Kevin Pho is a practicing internist in New Hampshire. While he does occasionally write essays, his blog is best known for linking to other medical blogs. As you might expect, he does focus on primary care and the political/payment struggles. He occasionally also writes op-ed pieces.

The Happy Hospitalist
http://thehappyhospitalist.blogspot.com/
Often irreverent, the anonymous hospitalist writes long screeds on our current health care system. While a hospitalist, he often writes about the need to better pay out-patient internists. He is an expert on our current billing situation and often tries to describe the madness.

Health Care Renewal
http://hcrenewal.blogspot.com/
Most often written by our own Roy Poses, this blog has several contributors. They describe the blog—addressing threats to health care’s core values, especially those stemming from concentration and abuse of power. If you want to know about such issues, you will find them in depth here.

Notes from Dr. RW
http://doctorrw.blogspot.com/
RW Donnell is a hospitalist in Northwest Arkansas. He writes about hospital medicine issues. He often provides useful clinical links. He particularly dislikes complementary and alternative medicine (which he calls Woo) and argues vociferously on this topic.

The Covert Rationing Blog
http://covertrationingblog.com/
Dr. Rich is an author of the book, Fixing American Healthcare. His blog focuses on the understanding that we ration health care, although often implicitly. He would urge us to be more explicit in our understanding of rationing and favors overt rather than covert rationing.

Wachter’s World
http://www.the-hospitalist.org/blogs/default.aspx
SGIM member Bob Wachter writes about hospitalist issues. His entries focus on safety, quality, and hospitalist program management. Bob writes well, but I wish he wrote more often.

Medical blogs can provide some context for the issues that internal medicine confronts. I can vouch for these blogs being interesting and provocative. Who knows, maybe one of you might become a blogger.
The first step in improving resident handoffs is to identify the scope of the problem and then to engage residents in the solution. Three years ago, we enlisted residents’ help to audit the quality of our sign-outs here at Yale-New Haven Hospital. We audiotaped several days’ worth of sign-outs and reviewed the written sign-outs. We interviewed house staff each day about any flaws or inadequacies they had observed. The results were not always pretty, but it was the house staff who looked with the clearest eye at our findings and who became motivated to make improvements.

After this baseline project, we developed a sign-out curriculum that became part of the summer emergency lecture series for interns. We repeat a noon conference twice every summer at each of the three hospitals our interns rotate through. The curriculum is interactive and includes real-time practice and feedback relative to signing-out actual patients on the wards. The didactic portion of the curriculum is based entirely on actual quotes and events from the sign-outs we observed, so it feels real and pertinent to the housestaff. We also took the opportunity to fully revamp the written sign-out to include the information we found to be most important and to maximize the ability of housestaff to maintain and update it with minimal effort. We regularly audit use of the new written sign-out system, and it is consistently above 95% for medicine inpatients.

An ongoing challenge for us is to observe and evaluate sign-out skills as part of routine house staff evaluation and quality improvement. Because sign-outs happen at odd hours, they are rarely observed by attending physicians. Peer evaluation may be the most practical and efficient means of maintaining a focus on sign-out quality throughout the year, so we are now beginning to devise tools and methods for peer sign-out evaluation.

References
train incoming interns on the expected process for handoffs.

In addition to process improvements, improving handoffs requires an understanding of effective and safe communication strategies. Using real-life handoff scenarios, we re-enact a handoff error for interns who are encouraged to identify the barriers (communication, cultural, and environmental) using an observational checklist. Trainees are also educated on the science of communication drawing from strategies in other industries, such as the importance of verbal face-to-face communication and use of read-back for to-do items. With support of institutional leaders, handoff education is part of the hospital’s PGY1 Orientation for all incoming interns. To truly ensure safe handoffs requires ongoing feedback and evaluation to assess current performance. Toward that end, we have developed a competency-based end-of-month peer evaluation, administered through New Innovations, for medicine interns to provide anonymous feedback to their co-interns. We are also developing handoff simulations for trainees to test these communication skills with standardized resident receivers who are trained to give feedback on handoffs using standardized tools.

References

Cheryl O’Malley, MD, and Heather Barton, DO
Banner Good Samaritan Medical Center, Phoenix, Arizona

The interruptions in continuity required by monthly rotations, call assignments, and work-hour restrictions have been addressed at Banner Good Samaritan through the following interventions.

First, resident checkout sheets have been standardized with prompts to include important components. The sheet includes the “SBAR” format (situation, background, assessment, and recommendation), which is also taught during two conferences per year and intern orientation. Periodic audits are done to assure continued compliance with the format and to assess the correlation between medication lists on the patients chart and those on the sign-out sheets. Conferences and faculty direct observation emphasize that patient handoff be verbal and face-to-face, include anticipated problems and appropriate actions, and allow the opportunity to ask questions. A peer audit tool completed monthly by the cross-covering intern is in the process of being implemented.

We have also redesigned our inpatient service to minimize the number of handoffs. In order to allow continuity between the admitting and following team, we do not have a night float service and have teams admit a small number of patients everyday. In September 2008, we reorganized our ward teams to five teams of two residents, two interns, and one to two students taking call every fifth night. Interns do traditional 24-hour call and leave immediately after completing rounds with the attending and two seniors. The two seniors alternate every fifth day between day call and night call (present from 7 pm until around 1

Erik G. Van Eaton, MD, and Karen D. Horvath, MD, FACS
University of Washington

The tradition of long working hours at the bedside for doctors in training progressed from page 9
HOW DO YOU DO THAT? continued from page 10

vided a rich educational experience and ensured that tasks and information were managed by one easily identifiable trainee. We cannot sustain this tradition: Patients are too complex, and there is too much work and information for one doctor to manage. Today, work hours are limited, and our tradition is struggling to adapt.

At the University of Washington, we believe that those benefits from our tradition of long hours can still be achieved. This will require innovation, new techniques, new tools, and willingness to create a new tradition in patient care delivery.

Our approach to this challenge began by understanding that patient care work and information can no longer be managed by a single trainee. We believe the care team should now naturally include the primary resident, cross-covering and night-float residents, attendings, nurses, ancillary care providers, and the patient and family.

Effective sharing of patient information to achieve this, especially at end-of-the-day sign-out, is often peer-to-peer and driven by time pressure and workflow efficiency needs. Early in the era of limited hours, we performed a systematic review of information management by residents. A daily patient list containing informal notes was central to the flow of information, sign-out, and task management—just like other high-reliability organizations. With user-centered design based on workflow, we built a web-based system called UW Cores (Computerized Rounding & Sign-out) to manage this information. During the sign-out process, each resident prints a sign-out sheet from the system, which comes pre-populated with automatically downloaded medical record data as well as resident-entered problems, plans, and “to-do” items.

Our tool provides a structured way to organize information for sign-out, ensuring completeness during the peer-to-peer process. It enhances information sharing and efficiency. The future for our system may include competency assessment using de-identified capture of sign-out notes for feedback, as well as increasing our provision of formal training in sign-out and team-based care delivery techniques.

References

Summary Points
These programs have identified problems inherent in the “discontinuity” of the 80-hour work week and have all enacted programs not only aimed at housestaff but encouraging their active involvement. While their individual elements might be slightly different from one to the other, several critical elements are identified:

- Emphasizing the importance of this activity as early as the intern orientation
- Actively engaging housestaff in efforts aimed at improvement
- Providing peer feedback
- Reviewing audiotapes or witnessed sign-outs
- Reviewing written or printed sign-outs
- Involving others in care of the patient and perhaps the family
- Using business cards so patients know which staff are primarily responsible for their care
- Using creative scheduling to minimize handoffs
- Using technology to facilitate transfer of information
- Gaining commitment by leadership to recognize handoffs as a potential problem and dedicating resources to decrease potential risk to patients

COUNTERPOINT continued from page 7

continuity practice in months 16 to 28 of residency training with traditional weekly continuity preceding that time (Warm E et al. JGIM 2008;23:921–6). Duke University, Hennepin County, and UCSF have more intermittent models with four or more weeks of periodic change between inpatient and outpatient settings. Each of these models preserves continuity between doctor and patient. Many of the models include the concept of practice partnership, with resident partners providing required urgent care when colleagues are away from their outpatient practices.

In the past, decision making on residency structure has largely been made in an evidence vacuum. As we move forward in more flexible scheduling models, we must measure outcomes of acute and chronic care; patient, resident, and faculty satisfaction; and career decisions to go beyond opinion in shaping the future of continuity clinic in residency training.
INPATIENT MORNING REPORT
continued from page 4

throughout, sensation is intact to light touch and pinprick, finger-to-nose is intact, and reflexes are symmetric bilaterally with negative Babinski reflex. She has a wide-based gait and a negative Romberg.

With regard to her vertigo, there is no mention of whether she has nystagmus, and it appears that a Dix-Halpike maneuver was not performed. Nonetheless, she does have a normal finger-to-nose test, making a cerebellar process less likely. Her wide-based gait may reflect vestibular or cerebellar dysfunction; while it sometimes can be seen in sensory peripheral neuropathy, her normal sensory exam argues against this possibility here. Her ear exam reveals no evidence of the Ramsay Hunt syndrome.

The more prominent feature is her CN VII exam, showing upper and lower facial palsy, suggesting a lower motor neuron (peripheral) lesion. The most common cause of acute facial palsy is idiopathic facial nerve palsy (aka Bell’s), which is felt to be due to inflammation of the VIIth nerve due to preceding herpes simplex or other viral infections. Other common causes are Lyme disease, acute HIV infection, otitis media, neuromas, cholesteatoma, diabetes, and trauma.

Her bradycardia, which is likely due to the AV nodal blocking medications she is taking, may be contributing to her presyncope and lightheadedness. She needs an ECG to further evaluate this issue.

She certainly could have a simple facial nerve palsy, but her worsening vertigo and concomitant headache argue against this diagnosis and support a more concerning, central etiology. Given her cardiovascular risk factors, it would be most prudent to obtain an MRI of the brain to look for possible stroke or evidence of neuromas or brainstem tumors that can affect both CN VII and CN VIII.

Her laboratories are significant for BUN 30, creatinine 5.7, glucose 245, hemoglobin A1C 9.1, HDL 26, and normal TSH. ECG shows sinus bradycardia and LVH. A transthoracic echo shows an EF of 45% with trace mitral regurgitation. Carotid ultrasound shows no significant carotid stenosis. MRI of the brain shows a subacute infarction of the left pons that involves the nucleus of CN VII, an old left PICA infarction, and several areas of old lacunar infarctions. MRI angiography indicates a completely occluded left vertebral artery. IR angiogram also shows that the left vertebral artery has an anomalous origin from the aorta instead of from the subclavian artery and further reveals that, due to complete occlusion, it is not a candidate for stenting.

An anomalous origin of the left vertebral artery from the aortic arch occurs in 6% of patients and predisposes them to abnormal blood flow, leading to vascular injury, atherosclerosis, and vertebral artery dissection. In our patient’s case, she has a complete occlusion of the left vertebral artery that resulted in a left PICA stroke and possibly vertebrobasilar insufficiency.

The MRI findings suggest her chronic vertigo may be due to prior ischemic events in the PICA distribution or due to vertebrobasilar insufficiency. But can this MRI explain her complete facial palsy? If the stroke just involves the CN VII nucleus and does not affect the upper motor neurons, it could affect the lower motor neurons only, causing the peripheral palsy picture that we see in this case.

There certainly is no acute intervention to be done in this case. Our management would involve long-term control of her blood pressure and vigorous treatment of all other modifiable cardiac risk factors to reduce her risk for further lacunar and ischemic strokes. She should be maintained on antiplatelet therapy. To address her bradycardia and reduce her symptoms of presyncope and vertigo, the dose of her nodal blocking agents should be lowered or these medications may need to be discontinued altogether. With her facial palsy, she should be given an eye lubricant to prevent corneal injury.

The patient was hospitalized, her metoprolol and diltiazem were stopped, and her bradycardia resolved. The vertigo and lightheadedness decreased significantly in frequency and severity. Neurology was consulted, and they suggested supportive care. She was started on an aspirin for secondary stroke prevention and given eye lubricant for prevention of eye injury.

Summary
This is an unusual presentation of a facial palsy caused by a stroke in the “central” brainstem. The patient’s chronic vertigo was probably due to her prior strokes; her worsening vertigo was likely caused by acute stroke effects on the cerebellar tracts, but her bradycardia may also have exacerbated these symptoms. The take home message is that patients with Bell’s palsy who have other cranial nerve or CNS findings on careful neurologic exam should get neuroimaging. MRI is the test of choice, as it affords views of the posterior fossa and brainstem that are superior to those of CT scanning.

Key Points
Idiopathic (Bell’s) facial nerve palsy is the most common cause of an acute facial nerve palsy.

- Facial palsies can be classified as upper motor neuron lesions, which involve only the lower face, or lower motor nerve lesions, which involve the lower face and forehead. This helps to narrow the differential diagnosis.
- Patients presenting with facial nerve palsies should always have a careful and complete neurologic examination performed. Neuroimaging should be considered in patients with other (unexpected) cranial nerve or CNS findings.
CURBSIDE CONSULT
continued from page 5

the researcher’s writing, which is necessary to succeed, so it can initiate a vicious cycle. It’s probably worth considering all options to preserve some research time, and it’s often wise to sound out several mentors for a range of ideas.

For a new junior faculty member, falling short of a proposed funding objective can be disappointing and stressful. Medical trainees are used to hitting their targets and viewing themselves as failures when they don’t. What might you say to faculty members who think they like research but now wonder if perhaps they aren’t cut out for the job?

Samet: I think that this is the situation in which a mentor’s advice is very valuable. Almost everyone who is perceived as successful today has had times of drought and near despair in the past. Being able to distinguish a drought in the desert from a dry spell in a fertile valley is the role that the mentor should be able to play. What to say to that faculty member depends on whether the future is forecast to be bright, remain challenging, or even grow tortuous.

Deyo: I would counsel persistence. Getting used to rejection is part of the job description here, and I probably have collected more rejection letters from journals and funding agencies than anyone you know. Even 30 years into my research career, I hate reading critiques of my own papers and proposals and have to steel myself when I open the envelope. However, most of the time, the feedback is constructive, genuinely helps to improve my work, and gives me a better chance the second time around (or third). I’m sure there comes a time when you have to cut your losses, but for people with the passion, I would say stick with it.

POINT
continued from page 1

hospital are now handled during repeated clinic visits over short periods. Continuity clinic does a poor job of teaching trainees how to care for such patients, as trainees can seldom be in clinic as frequently as such patients need to return. Outpatient and inpatient experiences have always overlapped insofar as the same medical illnesses must be treated in their acute and chronic phases in different settings. That overlap is now greater than ever before. Patients that previously would have been in the hospital are now presenting as outpatients in successive clinic visits over short periods; such patients give today’s residency outpatient clinics a very different complexion from those of the 1970s and 80s.

As to claims for the importance of continuity clinic for achieving clinical competence in internal medicine, we see no foundation for them. Trainees need to gain familiarity with the myriad manifestations of common diseases and at least an exposure to some of the rarer diseases and complications that will inevitably be part of their experience as internists. We suggest that such familiarity will best be acquired primarily on the wards and secondarily in well-organized outpatient experiences at least partly organized as block rotations rather than as continuity clinics. Block rotations will allow trainees to see all of the unique outpatient problems that continuity clinic has traditionally provided without depriving the trainee of opportunities to follow complex medical patients as outpatients over short periods. The trainee needs a coherent understanding of disease in both its acute and less acute manifestations and the ability to select the best setting for managing a given stage of disease. Fewer interrupted ward rotations interspersed with block outpatient rotations (and, perhaps, some continuity clinics) will better achieve such competence than the present regime of ward rotations where trainees balance pressing outpatient problems with the responsibility of weekly continuity clinics.

Fewer interrupted ward rotations interspersed with block outpatient rotations ... will better achieve such competence than the present regime of ward rotations where trainees balance pressing inpatient problems with the responsibility of weekly continuity clinics. Of course such clinics are “continuity” only in name due to the scheduling issues that inevitably keep residents from going to clinic every week.

What would be lost if block rotations were substituted, at least in part, for continuity clinics? We suggest that the loss would be minimal. The unique advantages of continuity clinic—relationships with patients forged and maintained over a period of up to three years—are seldom achieved in any event due to the frequency with which continuity clinics are scheduled. Of course such clinics are better to postpone them to actual practice than to try to create them during a training period that should be aimed primarily at achieving clinical competence. Continuity clinic has likely never achieved its stated purposes, and clinical competence may be better achieved through other arrangements, which is why we should dispense with requiring continuity clinic in any rigid fashion.
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