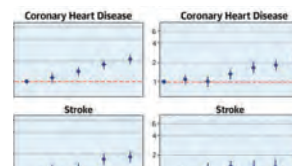




2
Allen Hamdan,
MD, evaluates
the evaluators.



15
PAD risk continues
long after smoking
cessation.



11 News From SVS

Meet the new SVS president, Kim Hodgson, MD, who took the reins at the 2019 VAM.

VOL. 15 • NO. 8 • AUGUST 2019

Vascular Specialist

SVS | Society for Vascular Surgery | Official Publication

Malnutrition Affects Frail Elderly PAD Patients

BY MARK S. LESNEY

MDEDGE NEWS
REPORTING FROM THE 2019
VASCULAR ANNUAL MEETING

NATIONAL HARBOR, MD. – Frailty increasingly has been seen as a factor in procedural outcomes, including vascular surgery. Nutritional status has also become an issue of concern. Laura Drudi, MD, of McGill University, Montreal, reported on a study that she and her colleagues performed to determine the association between preprocedural nutritional status and all-cause mortality in frail patients being treated for peripheral arterial disease (PAD) at the 2019 Vascular Annual Meeting.

Dr. Drudi detailed their post hoc analysis of the FRAILED (Frailty Assessment in Lower Extremity arterial Disease) prospective cohort, which

See **Malnutrition** • page 7



Dr. Elsie Ross

Lifestyle Factors Were Significantly Associated With Symptomatic PAD

BY MARK S. LESNEY

MDEDGE NEWS
REPORTING FROM THE 2019
VASCULAR ANNUAL MEETING

NATIONAL HARBOR, MD. – A large database analysis found that smoking- and physical activity-related lifestyle factors were significantly associated with symptomatic peripheral arterial disease. Elsie Ross, MD, of Stanford (Calif.) University, reported on the study that she and her colleagues performed to evaluate which life-

style factors were most associated with the disease.

Dr. Ross presented her data in the Vascular & Endovascular Surgery Society portion of the 2019 Vascular Annual Meeting. She and her colleagues assessed data derived from the UK Biobank study, a longitudinal cohort study of over 500,000 individuals aged 40-69 years from 21 centers in the United Kingdom.

“We age-matched PAD patients to a random sample of non-PAD patients using a 2:1 matching ratio,” said Dr. Ross. “We then performed machine learning

See **Lifestyle** • page 7



Vascular Specialist

Exclusive Online Content

www.mdedge.com/vascularspecialistonline

Do we need to re-evaluate the way we evaluate?

BY ALLEN D. HAMDAN, MD

Although vascular surgery has seen dramatic changes in technology and procedures, the way we give feedback to our trainees has mainly remained the same. Our evaluation systems, though structured, are cumbersome, and in order to improve, it may be helpful to look at the fundamental principles used in business and the private sector.

To start, one key measure of the effectiveness of our current system would be to find out what our trainees think. As such, information from a survey of vascular surgery trainees by Dalsing et al. is illustrative (J Vasc Surg. 2012 Feb;55[2]:588-97). Among the key findings for both residents and fellows are the following:

1. One of the most critical factors in choosing a residency is the program director (main person in feedback);
2. Tests with subsequent review are considered a poor method of evaluation, whereas direct clinical feedback before, during, and after a procedure is very highly rated;
3. Trainees rated most aspects of their current program as excellent. However, "feedback given" was considered only good or fair.

Looking outside of surgery for better systems is critical.

A recent article by Buckingham and Goodall in Harvard Business Review (March-April 2019, p. 92) sheds light on current best practices. The authors provide evidence from neuroscience research that essentially debunks our standard approach of praise and "constructive" criticism.

Some of the key findings of this paper are interspersed below, along with lessons learned



Dr. Hamdan is the Vice Chair (Director of Operations) Department of Surgery, Beth Israel Lahey Health; Associate Professor of Surgery, Harvard Medical School; Co-Chair Committee for Social Responsibility, Board of Directors, Strategic Planning, and Greater Boston Food Bank.

from training residents for 20 years.

1. We aren't as reliable as we think in rating performance. We evaluate through the prism of our experiences and what worked or didn't for us, as well as unconscious bias. We are excellent at assessing our own feelings and opinions, but not on judging what someone else may think. Many studies show that we use different words when giving feedback based on the gender of the trainee.
2. Criticism inhibits the brain's ability to learn.
3. Excellence is idiosyncratic and hard to define – we all operate with surgeons who "are just better" and clinicians who are almost never wrong. It is not just effort and intelligence.
4. You cannot correct someone into stardom.
5. Feedback in training has become somewhat of a check the box, and a means to itself. This type of feedback is not always helpful and, thus, often misses the goal.
6. Specific instruction in what knowledge and/or technical skills need to be acquired is useful. That's why checklists work – they are nonjudgmental.
7. In businesses that use radical transparency and

360-degree feedback, the results are decidedly negative. Our current standard is similar.

8. Excellence is not the opposite of failure, and it can't be pinned down. Are we really helping a trainee by telling her she got a 3 on MK1: Procedural Rationale – Basic Procedures (e.g., amputation, basic arteriovenous [AV] fistula/graft, varicose veins, diabetic foot and wound management, placement of inferior vena cava [IVC] filter) instead of a 3.5 or higher? This method may assess and allow for competency but might not allow for growth. As stated above – the number is the assessor or assessors' number – not hers. It is probably wrong anyway.

The idiosyncratic rater effect is shown to be problematic in numerous studies. This is similar to "eye witness" accounts of crimes, which can be very unreliable. We try to mitigate this effect by adding scores from multiple raters and creating an average. This practice does not increase the accuracy of a score; rather each individual error is now magnified. The most accurate input is likely to be from someone who best knows the resident's performance in this domain. This is why the program director is so important to the residents when choosing a place to train.

We also need to understand the differences between remediation and feedback. They have distinct goals and should be conducted independently. As an example, if you explain to the fellow (very loudly and publicly) that a loss of pulse at 3 AM on a recent bypass should prompt an immediate call and not be a discovery on 7 AM rounds, realize this is criticism with an attempt at remediation, not feedback. This is important in setting expectations, but if you start it as an accusation, his or her brain will go into fight or flight and shutdown.

Evaluate continued on page 3



VASCULAR SPECIALIST Medical Editor Malachi Sheahan III, MD
Associate Medical Editors Bernadette Aulivola, MD, O. William Brown, MD, Elliot L. Chaikof, MD, PhD, Carlo Dall'Omo, MD, Alan M. Dietzek, MD, RPVI, FACS, Professor Hans-Henning Eckstein, MD, John F. Eidt, MD, Robert Fitridge, MD, Dennis R. Gable, MD, Linda Harris, MD, Krishna Jain, MD, Larry Kraiss, MD, Joann Lohr, MD, James McKinsey, MD, Joseph Mills, MD, Erica L. Mitchell, MD, MEd, FACS, Leila Mureebe, MD, Frank Pomposelli, MD, David Rigberg, MD, Clifford Sales, MD, Bhagwan Satiani, MD, Larry Scher, MD, Marc Schermerhorn, MD, Murray L. Shames, MD, Niten Singh, MD, Frank J. Veith, MD, Robert Eugene Zierler, MD
Resident/Fellow Editor Laura Drudi, MD.
Executive Director SVS Kenneth M. Slaw, PhD.
Interim Director of Membership, Marketing and Communications Angela Taylor
Managing Editor SVS Beth Bales

Vascular Specialist is the official newspaper of the Society for Vascular Surgery and provides the vascular specialist with timely and relevant news and commentary about clinical developments and about the impact of health care policy. Content for Vascular Specialist is provided by Frontline Medical Communications Inc. Content for the News From the Society is provided by the Society for Vascular Surgery.

The ideas and opinions expressed in Vascular Specialist do not necessarily reflect those of the Society or the Publisher. The Society for Vascular Surgery and Frontline Medical Communications Inc. will not assume responsibility for damages, loss, or claims of any kind arising from or related to the information contained in this publication, including any claims related to the products, drugs, or services mentioned herein.

POSTMASTER Send changes of address (with old mailing label) to Vascular Specialist, Subscription Services, 10255 W. Higgins Road, Suite 280, Rosemont, IL 60018-9914.

RECIPIENT: To change your address, contact Subscription Services at 1-800-430-5450. For paid subscriptions, single issue purchases, and missing issue claims, call Customer Service at 1-833-836-2705 or e-mail custsvc.vasc@fulcoinc.com.

The Society for Vascular Surgery headquarters is located at 9400 W. Higgins Road, Suite 315, Rosemont, IL 60018.

Vascular Specialist (ISSN 1558-0148) is published monthly for the Society for Vascular Surgery by Frontline Medical Communications Inc., 7 Century Drive, Suite 302, Parsippany, NJ 07054-4609. Phone 973-206-3434, fax 973-206-9378.

Subscription price is \$230.00 per year.

National Account Manager Valerie Bednarz, 973-206-8954, cell 973-907-0230, vbednarz@mdedge.com

Digital Account Manager Amanda Smith, (973) 206-2321, asmith@mdedge.com

Classified Sales Representative Drew Endy, 215-657-2319, cell 267-481-0133, dendy@mdedge.com

Senior Director of Classified Sales Tim LePella, 484-921-5001, cell 610-506-3474, tlapella@mdedge.com

Advertising Offices 7 Century Drive, Suite 302, Parsippany, NJ 07054-4609 973-206-3434, fax 973-206-9378

©Copyright 2019, by the Society for Vascular Surgery



Scan this QR Code to visit vascularspecialistonline.com



FRONTLINE MEDICAL COMMUNICATIONS SOCIETY PARTNERS

Director, FMC Society Partners Mark Branca

Editor in Chief Mary Jo M. Dales

Executive Editors Denise Fulton, Kathy Scarbeck

Managing Editor Mark S. Lesney

Creative Director Louise A. Koenig

Director, Production/Manufacturing Rebecca Slebodnik

Letters to the Editor: VascularSpecialist@vascularsociety.org

Editorial Offices: 2275 Research Blvd, Suite 400, Rockville, MD 20850, 240-221-2400, fax 240-221-2548

FRONTLINE MEDICAL COMMUNICATIONS

Corporate

SVP, Finance Steven J. Resnick

VP, Operations Jim Chicca

VP, Sales Mike Guire

VP, Society Partners Mark Branca

VP, Editor in Chief Mary Jo M. Dales

VP, Editorial Director, Clinical Content

Karen Clemments

VP, Digital Content & Strategy Amy Pfeiffer

President, Custom Solutions JoAnn Wahl

VP, Custom Solutions Wendy Raupers

VP, Marketing & Customer Advocacy

Jim McDonough

VP, Human Resources & Facility Operations

Carolyn Caccavelli

Data Management Director Mike Fritz

Circulation Director Jared Sonners

Corporate Director, Research & Comms.

Lori Raskin

Director, Custom Programs Patrick Finnegan

In affiliation with Global Academy for Medical Education, LLC

President David J. Small, MBA

Few Stroke Patients Have Osteoporosis Screening

BY BIANCA NOGRADY
MDEdge News
FROM STROKE

Although stroke is a risk factor for osteoporosis, falls, and fractures, very few people who have experienced a recent stroke are either screened for osteoporosis or treated, research suggests.

Writing in *Stroke*, researchers presented an analysis of Ontario registry data from 16,581 patients who were aged 65 years or older and presented with stroke between 2003 and 2013.

Overall, just 5.1% of patients underwent bone mineral density testing. Of the 1,577 patients who had experienced a prior fracture, 71 (4.7%) had bone mineral density testing, and only 2.9% of those who had not had prior bone mineral density testing were tested after their stroke. Bone mineral density testing was more likely in patients who were younger, who were female, and who

experienced a low-trauma fracture in the year after their stroke.

In total, 15.5% of patients were prescribed osteoporosis drugs in the first year after their stroke. However, only 7.8% of those who had fractures before the stroke and 14.8% of

Screening and treatment may be particularly low because of under-recognition of osteoporosis as a consequence of stroke.

those with fractures after the stroke received osteoporosis treatment after the stroke. Patients who were female, had prior osteoporosis, had experienced prior fracture, had previously undergone bone mineral density

testing, or had experienced a fracture or fall after their stroke were more likely to receive osteoporosis pharmacotherapy.

The authors found that the neither the severity of stroke nor the presence of other comorbidities was associated with an increased likelihood of screening or treatment of osteoporosis after the stroke.

Stroke is associated with up to a fourfold increased risk of osteoporosis and fracture, compared with healthy controls, most probably because of reduced mobility and an increased risk of falls, wrote Eshita Kapoor of the department of medicine at the University of Toronto and her coauthors.

“Screening and treatment may be particularly low poststroke because of under-recognition of osteoporosis as a consequence of stroke, a selective focus on the management of cardiovascular risk and stroke recovery, or factors such as dysphagia precluding use of oral bisphospho-

nates,” the authors wrote.

While the association is noted in U.S. stroke guidelines, there are few recommendations for treatment aside from fall prevention strategies, which the authors noted was a missed opportunity for prevention.

“Use of a risk prediction score to identify those at particularly high short-term risk of fractures after stroke may help to prioritize patients for osteoporosis testing and treatment,” they suggested.

The study was funded by the Heart and Stroke Foundation of Canada and was supported by ICES (Institute for Clinical Evaluative Sciences) and the Ontario Ministry of Health and Long-Term Care. One author declared consultancies for the pharmaceutical sector. No other conflicts of interest were declared.

SOURCE: Kapoor E et al. *Stroke*. 2019 Apr. 25. doi: 10.1161/STROKEA-HA.118.024685.

Evaluate

continued from page 2

Phrase it as – “What didn’t work in this situation was the timing, as we could have taken the patient to the OR sooner.”

Similar lessons are true with positive feedback. Positive feedback is important but the phrase “you did great” is nice for about three seconds. Real feedback is a comment such as, “It was impressive that you found the subtle difference in the angiogram from last year that allowed us to figure out the best plan.” Or “On that AAA, your understanding of the exposure, the way you used your needle angle and body to get those back wall sutures, and your attention to what anesthesia was doing were all excellent.”

Similar lessons have been learned from instruction in sports. With my personal experience coaching over 200 girls’ basketball games, I can illustrate this point. If a player doesn’t hustle back on defense, the opposition may score. If you take her out immediately or yell at her in front of her teammates, she will likely be remediated – i.e., she will get back on defense because you control her minutes. This, however, does not help her to improve. If she actually gets better, it’s only because she wanted to. However, if in practice you stop the drill to explain how her effort created a steal for her teammate, she will likely improve and hustle more. She will also pay closer attention to your plays. You have taught her how to be a leader on your defense and help her teammates.

Neuroscience shows we grow more in our areas of greatest ability, and different people have unique synaptic connections. It is easier to learn by building on your strengths than trying something

completely new. For example, just because you read a textbook, took notes, wrote index cards, and crushed the ABSITE every year – doesn’t mean you should instruct all of your trainees to do the same. This feedback to a resident who learns visually is not only useless, it’s potentially harmful.

Using functional MRI during problem solving can illustrate this further. If you say to a student “What did you do wrong in this instance and how are you going to correct it?” – the sympa-

Help your students and trainees focus on their wins. When they accomplish a task without assistance ask why did it work for them. “Yes, that was good” as opposed to “no, do this.”

thetic fight or flight center will light up because the question is perceived as a threat. In contrast, if you ask the same student how they would like to overcome a challenge and their hopes related to the problem, the parasympathetic system will activate stimulating new neurons and a sense of well-being. Thus, building on what they are doing well works, not focusing on what they are doing wrong. Help your students and trainees focus on their wins – when they accomplish a task without assistance ask why did it work for them. “Yes, that was good” as opposed to “no, do this.”

I’m not suggesting you can never correct your residents, but even if given as advice or constructive criticism, it’s not feedback that will help them grow. For example, instead of telling an intern “your consult was all over the place and I had no clue what you were trying to say, you need to get organized,” you could tell them, “I was with you until you started talking about the NY CHF scale, but I wanted to hear quickly about the CT results.” This relates your opinion and experience, which is 100% accurate and does not judge them.

There are other methods likely to be beneficial. At the start of a feedback session, don’t point out what your trainee does incorrectly or tell him or her what you would do instead. Try pointing out a few things that are going great – this will likely cause the release of oxytocin in the brain and allow the conversation to advance. If you start with, “we really need to focus on your less-than-average endovascular rotation,” epinephrine will be released and any REAL feedback given later in the session may be lost. Problems are better approached by asking trainees what they think is not going well and how have they fixed similar problems in the past. Don’t say, “Do these three things and that will fix your problems.” Another method is to ask, “What do you think will help you be more effective in the endo suite?”

I can see it already – some of my former mentors will call this psychological gibberish. They would state sometimes people need a kick in the butt or a good yelling at, look at me it worked. I can also see my trainees asking who ghost wrote this paper; it can’t be Hamdan.

Well, neuroscience says our current standard is bad. Ask your trainees, they will say the same. ■

A Call to Address Sexual Harassment and Gender Discrimination in Medicine

BY ERICA L. MITCHELL, MD; LAURA DRUDI, MD;
KELLIE R. BROWN, MD; AND ULKA SACHDEV-OST, MD

PART I

Reports of sexual harassment and gender discrimination have dominated news headlines, and the #MeToo movement has brought the scope and severity of discriminatory behavior to the forefront of public consciousness. The #MeToo movement has raised national and global awareness of gender discrimination and sexual harassment in all industries and has given rise to Time's Up initiative within health care.

Academic medicine has not been immune to workplace gender discrimination and sexual harassment as has been vastly reported in the litera-

Research reveals that academic settings in the fields of science exhibit characteristics that create high levels of risk for sexual harassment.

ture and clearly documented in the 2018 National Academies of Sciences, Engineering, and Medicine report, which points out that ... "the cumulative effect of sexual harassment is a significant and costly loss of talent in academic science, engineering, and medicine, which has consequences for advancing the nation's economic and social well-being and its overall public health."¹

With the increasing recognition that healthcare is an environment especially prone to inequality, gender discrimination and sexual discrimination, the Time's Up national organization, supported by the Time's Up Legal Defense Fund, launched the Time's Up initiative for health care workers on March 1, 2019.^{2,3} The overarching goal of this initiative is to expose workplace inequalities; drive policy and legislative changes focused on equal pay, equal opportunity, and equal work environments; and support safe, fair, and dignified work for women in health care.^{2,3}

This article, presented over the next three issues of Vascular Specialist, will present data on the ongoing problem of sexual harassment in medicine, discuss why the problem is prevalent in academic medicine, and provide recommendations for mitigating the problem in our workplace.

Defining & Measuring Sexual Harassment

Although commonly referred to as "sex discrimination," sexual harassment differs from sexual discrimination. Sex discrimination refers to an employees' denial of civil rights, raises, job opportunities, employment or a demotion or other mistreatments based on sex. On the other hand,

sexual harassment relates to behavior that is inappropriate or offensive. A 2018 report from the National Academies Press defined sexual harassment (a form of discrimination) as comprising three categories of behavior: gender harassment – verbal and nonverbal behaviors that convey hostility, objectification, exclusion, or second-class status about members of one sex; unwanted sexual attention – verbal or physical unwelcome sexual advances, which can include assault; and sexual coercion – when favorable professional or educational treatment is conditional based on sexual activity.¹

During 1995-2016, more than 7,000 health care service employees filed claims of sexual harassment with the Equal Employment Opportunity Commission. While this number may seem large, the number of official reports severely undervalues the prevalence of sexual discrimination in U.S. health care.¹ Prevalence is best determined using representative validated surveys that rely on firsthand experience or observation of the behavior(s) without requiring the respondent to label those behaviors.

Environments at Risk for Sexual Harassment

Research reveals that academic settings in the fields of science exhibit characteristics that create high levels of risk for sexual harassment to occur. These environments historically are male dominated, tolerate sexually harassing behavior, and create a hierarchy in which men hold most of the positions of power and authority. Moreover, dependent relationships often exist between these gatekeepers and those subordinate to them, with gatekeepers directly influencing the career advancement of those subordinates.¹

The greatest predictor of sexual harassment in the workplace is the organizational climate, which refers to the tolerance for sexual harassment and is measured on three elements: a lack of sanctions against offenders; a perceived risk to those who report sexually harassing behavior; and the perception that one's report of sexually harassing behavior will not be taken seriously.¹ Women are less likely to be directly harassed in environments that do not tolerate harassing behaviors or have a strong, clear, transparent consequence for these behaviors.

Sexual Harassment in Academic Medicine

Academic medicine has the highest rate of gender and sexual harassment in the health care industry, with about 50% of female academic physicians reporting incidents of sexual harassment.¹ A recent survey suggests that more than half (58%) of women surgeons experienced sexual harassment within just the previous year alone.⁴ The conditions that increase the risk of sexual harassment against women – male-dominated hierarchical environments and organizational tolerance of sexual harassment – still prevail in academic medicine.

Higher-education environments are perceived as permissive environments in part because when targets report sexual harassment, they are retaliat-

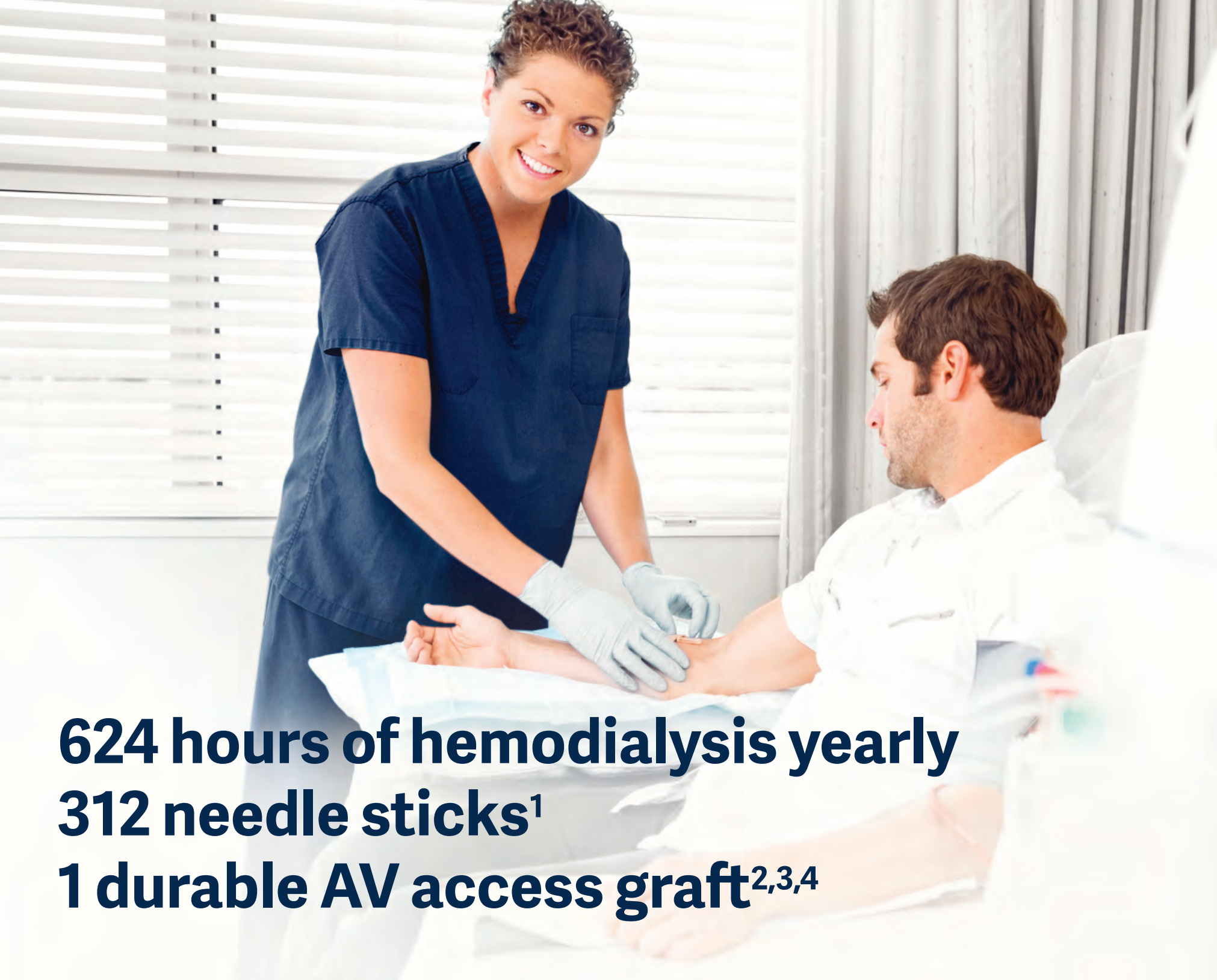
ed against or there are few consequences for the perpetrator. Academic institutions are replete with cases in which the conduct of offenders is regarded as an open secret, but there are no sanctions for that bad behavior. These offenders often are perceived as superstars in their particular substantive area. Because they hold valued grants or national status within their specialty area, they often receive preferential treatment and are not held accountable for gender-biased and sexually harassing behavior. Interview data regarding sexual harassment in academic medicine reveals that interview respondents and other colleagues often know which individuals have a history of sexually harassing behavior. Both men and women warn colleagues of these perpetrators – knowing that calling out or reporting these behaviors is fruitless – and that the best manner for dealing with their behavior is to avoid or ignore it. This normalization of sexual harassment and gender bias was noted, unfortunately, to fuel similar behavior in new cohorts of medicine faculty.¹

Sexual harassment of women in academic medicine starts in medical school. Female medical students are significantly more likely to experience sexual harassment by faculty and staff than are graduate or undergraduate students. Sexual harassment continues into residency training with residency described as "breeding grounds for abusive behavior by superiors."¹ Interview studies report

Female medical students are significantly more likely to experience sexual harassment by faculty and staff than are graduate or undergraduate students.

that both men and women trainees widely accept harassing behavior at this stage of their training. The expectation of abusive and grueling conditions during residency caused several respondents to view sexual harassment as part of a continuum that they were expected to endure. Female residents in surgery and emergency medicine are more likely to be harassed than those in other specialties because of the high value placed on a hierarchical and authoritative workplace. Once out of residency, the sexual harassment of women in the workplace continues. A recent meta-analysis reveals that 58% of women faculty experience sexual harassment at work. Academic medicine has the second-highest rate of sexual harassment, behind the military (69%), as compared with all other workplaces. Women physicians of color experience more harassment (as a combination of sexual and racial harassment) than do white women physicians.¹

Commentary continued on page 6



624 hours of hemodialysis yearly
312 needle sticks¹
1 durable AV access graft^{2,3,4}

Flixene AV access graft:
Premium performance for dialysis access



Flixene's unique 3-layer ePTFE construction is specifically designed to handle the rigors of multiple needle cannulations related to dialysis care. It has been demonstrated in multiple independent, peer-reviewed journals to be a safe and effective option for early cannulation within 24 to 72 hours.^{5, 6, 7}

1. National Kidney Foundation, *How long will each hemodialysis treatment last?* Retrieved 5/2019 www.kidney.org/atoz/content/hemodialysis 2. Chiang N, Hulme KR, Haggart PC, et al *J Vasc Access*. 2014 Mar-Apr;15(2):116-22. 3. Lioupis C, Mistry H, Rix T, et al. *J Vasc Access*. 2011 Jan-Mar;12(1):36-44. 4. Berard X, Ottaviani N, Brizzi V, et al. *J Vasc Surg*. 2015 Jul;62(1):128-34 5. Data on file. 6. Schild AF, Schuman ES, Noicely K, et al. *J Vasc Access*. 2011 Jul-Sep;12(3):248-52. 7. Schild AF, Baltodano NM, Alfieri K, et al. *J Vasc Access*. 2004 Jan-Mar;5(1):19-24.



getinge.com/Flixene

GETINGE 

Commentary

continued from page 4

Why Women Are Not Likely to Report Sexual Harassment

Only 25% of targets file formal reports with their employer, with even fewer taking claims to court. These numbers are even lower for women in the military and academic medicine, where formal reporting is the last resort for the victims. The reluctance to use formal reporting mechanisms is rooted in the “fear of blame, disbelief, inaction, retaliation, humiliation, ostracism, and the damage to one’s career and reputation.”¹ Targets may perceive that there seem to be few benefits and high costs for reporting. Women and nonwhites often resist calling bad behavior “discrimination” because that increases their loss of control and victimhood.¹ Women frequently perceive that grievance procedures favor the institution over the individual, and research has proven that women face retaliation, both professional and social, for speaking out. Furthermore, stark power differentials between the target and the perpetrator exacerbate the reluctance to report and the fear of retaliation. The overall effects can be long lasting. ■

References

1. National Academies of Sciences, Engineering, and Medicine. Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine. The National Academies Press, Washington, DC; 2018. doi: 10.17226/24994.
2. Choo EK et al. From #MeToo to #TimesUp in Health Care: Can a Culture of Accountability End Inequity and Harassment? Lancet. 2019 Feb 9;393(10171):499-502.
3. Choo EK et al. Time’s Up for Medicine? Only Time Will Tell. N Engl J Med. 2018 Oct 25;379(17):1592-3.
4. Medicine Has Its Own #MeToo Problems. Can Time’s Up Healthcare Fix It? Fortune. Feb. 28, 2019.

Dr. Mitchell is a vascular surgeon at Salem (Ore.) Hospital; Dr. Drudi is a vascular surgery resident at McGill University, Montreal; Dr. Brown is a professor of surgery at the Medical College of Wisconsin, Milwaukee; Dr. Sachdev-Ost is an associate professor of surgery at the University of Pittsburgh Medical Center.

CAROTID DISEASE

Carotid Ultrasound May Aid in Determining CV Risk With Psoriasis

BY MICHELE G. SULLIVAN

MDEdge News
FROM ARTHRITIS & RHEUMATOLOGY

Subclinical atherosclerosis in the carotid arteries as measured by ultrasound appears to nearly triple the risk of a first cardiovascular event among patients with psoriatic disease, according to findings from a retrospective study.

When added to the Framingham risk score, the measurement significantly improved its predictive ability, Curtis Sobchak, MD, and colleagues wrote in Arthritis & Rheumatology.

The findings indicate that carotid ultrasound could be a useful addition to cardiovascular risk stratification among these patients.

“Traditional algorithms do not consider other factors that may contribute to increased cardiovascular risk in rheumatic disease patients and tend to underestimate cardiovascular risk,” wrote Dr. Sobchak of the University of Toronto and coauthors.

“The advantage of ultrasound over other modalities for vascular imaging includes lack of radiation, low cost of the examination, and its widespread use in rheumatology for joint evaluation. Thus, this assessment could potentially be performed ‘at the bedside’ during consultation to provide immediate valuable information to complement clinical data from history, physical examination, and laboratory data,” they added.

The study retrospectively examined a prospective, observational cohort of 559 patients with psoriasis alone or psoriasis and psoriatic arthritis enrolled in the University of Toronto Psoriatic Disease Program. The investigators evaluated five ultrasound measures of atherosclerosis, including total plaque area (TPA), mean carotid intima-media thickness (cIMT), maximal cIMT, plaque category, and TPA category. Then they analyzed the risk relationship with major cardiovascular events (CVEs) classified as myocardial infarction, unstable angina, ischemic stroke, revascularization procedures, or cardiovascular-related death. Minor CVEs included stable angina, exacerbation of congestive heart failure, and transient ischemic attack over a mean

follow-up close to 4 years.

The mean baseline TPA was 0.18 cm² and mean cIMT was 639 μm. Most patients had plaques, including 27.0% with unilateral and 31.5% with bilateral plaques.

The rate of a first CVE during the study period was 1.11 per 100 patient-years, and the rate of a first major CVE was 0.91 per 100 patient-years. The risk of each was significantly related to a higher baseline burden of atherosclerosis.

A multivariate analysis determined that increased TPA at baseline increased the risk of an event by nearly 200% (hazard ratio, 2.85). Mean cIMT was not an independent predictor in the final analysis, “suggesting that TPA is a stronger predictor for CVE than cIMT,” the authors wrote.

Finally, they examined the predictive value of atherosclerosis alone, as well as combined with the Framingham risk score. The 5-year model indicated that the bivariate model was slightly more accurate than the Framingham score alone (area under the curve, 0.84 vs. 0.81), although this was not a significant difference. The predictive value of the Framingham risk score plus maximal cIMT, mean cIMT, or TPA all significantly improved when they were calculated using only high-risk patients (those above the treatment threshold for dyslipidemia).

“To the best of our knowledge this is the first study to assess the utility of various measures of carotid atherosclerosis to predict CVE in patients with psoriasis and PsA [psoriatic arthritis]. ... Combining vascular imaging data with clinical and laboratory measures of traditional cardiovascular risk factors could improve accuracy of cardiovascular risk stratification in patients with psoriatic disease and facilitate earlier initiation of appropriate treatment to reduce CVE in this population,” the investigators wrote.

The study was supported in part by a Young Investigator Operating Grant from the Arthritis Society. Dr. Sobchak had no financial disclosures.

msullivan@mdedge.com

SOURCE: Sobchak C et al. Arthritis Rheumatol. 2019 Jun 5. doi: 10.1002/art.40925.

SAVE THE DATE!

Toronto, Canada
June 17-20, 2020
Toronto Convention Center

2020 VASCULAR ANNUAL MEETING TORONTO, CANADA

Scientific Sessions:
June 18-20
Exhibits: June 18-19

SVS | Society for Vascular Surgery

Passports and/or travel documents will be required for most attendees.
Be sure to update your passport early. Visit vsweb.org/CanadaDocuments.

PAD Risk Factors

Lifestyle from page 1

analysis, including gradient boosted machines, random forest, and Least Absolute Shrinkage and Selection Operator to identify lifestyle factors most associated with symptomatic PAD," she added.

The age-matched cohort comprised 13,473 patients, including 4,491 patients with PAD events. From more than 5,500 variables available in the UK Biobank, the top 20 lifestyle variables most associated with PAD were identified.

The multivariate analysis demonstrated that the lifestyle variables significantly associated with symptomatic PAD included age stopped smoking (odds ratio, 1.06), number of cigarettes previously smoked (OR, 1.03), maternal smoking around birth (OR 1.4), number of days a week walked more than 10 minutes (OR, 0.88), days per week engaged in moderate activity (OR, 0.95), average weekly beer and hard cider intake

(OR, 1.03), average weekly white wine and champagne intake (OR, 0.97), and bread intake (OR, 1.01).

Factors such as socioeconomic status, education, and certain sedentary behaviors were not independently associated with symptomatic PAD.

"Currently nearly 60% of patients with PAD are undiagnosed," said Dr. Ross. "Our comprehensive evaluation of lifestyle and social factors using big data and machine learning reveal that amongst similarly aged individuals smoking behavior and exposure to smoking around birth, as well as physical activity and type of alcohol intake are significantly associated with likelihood of having PAD.

"Such analysis can help clinicians improve their ability to identify high-risk patients by incorporating important lifestyle variables into risk calculations," she concluded.

mlesney@mdedge.com

Frail PAD Patients

Malnutrition from page 1

comprised two centers recruiting patients during July 1, 2015–Oct. 1, 2016. Individuals who underwent vascular interventions for Rutherford class 3 or higher PAD were enrolled.

The Mini Nutritional Assessment (MNA)–Short Form was used to assess patients before their procedures. Scores less than or equal to 7 on a 14-point scale were considered malnourished, with scores of 8–11 indicating malnutrition risk.

The modified Essential Frailty Toolset (mEFT) was simultaneously used to measure frailty, with scores of 3 or less on a 5-point scale considered frail. The primary endpoint of the study was all-cause mortality at 12 months after the procedure. The cohort comprised 148 patients (39.2% women) with a mean age of 70 years, and a mean BMI of 26.7 kg/m². Among these patients, 59 (40%) had claudication and 89 (60%) had chronic limb-threatening ischemia. A total of 98 (66%) patients underwent endovascular revascularization and 50 (34%) underwent open or hybrid revascularization, Dr. Drudi said.

Overall, 3% of subjects were classified as malnourished and 33% were at risk. There were nine (6%) deaths at 12 months. Mini Nutritional Assessment Short Form scores were modestly but significantly correlated with the mEFT scores (Pearson's R = –0.48; P less than .001).



DR. DRUDI

"We found that patients with malnourishment or at risk of malnourishment had a 2.5-fold higher crude 1-year mortality, compared with those with normal nutritional status," said Dr. Drudi.

In the 41% of patients deemed frail, malnutrition was associated with all-cause mortality (adjusted odds ratio, 2.08 per point decrease in MNA scores); whereas in the nonfrail patients, MNA scores had little or no effect on mortality (adjusted OR, 1.05).

"Preprocedural nutritional status is associated with mortality in frail older adults undergoing interventions for PAD. Clinical trials are needed to determine whether pre- and postprocedural nutritional interventions can improve clinical outcomes in these vulnerable individuals," she concluded.

mlesney@mdedge.com

MEDICOLEGAL ISSUES

Regarding Discovery Of Peer Review

BY S.Y. TAN, MD, JD
MDEDGE NEWS

Question: A patient died unexpectedly during hospitalization for a diabetic foot infection. The autopsy revealed the presence of a large saddle pulmonary embolus. The hospital's peer review committee met to determine if care was suboptimal and whether prophylactic anticoagulation should have been used. When the attending doctor was subsequently sued for malpractice, the plaintiff's attorney sought to subpoena all of the medical records, including the minutes of the peer review committee. Given this hypothetical scenario, which of the following can occur?

A. "Discovery" is the legal term given to the process during the pretrial phase for amassing relevant documents and other information.

B. A subpoena duces tecum, which is a court order for the production of relevant documents and one that should normally be obeyed, may be issued.

C. The hospital declines to hand over certain types of hospital records, such as peer review minutes, which in this case are statutorily protected from discovery.

D. The plaintiff attorney goes to the judge for an order to compel production and may or may not be successful.

E. All are correct.

Answer: E. Physicians and other participants regularly meet, under strict confidential conditions, to discuss adverse events that occur in their institution. Congress and state legislatures have enacted laws to ensure the confidentiality of medical peer review, incident reports, and patient safety work products. Such records are protected from "discovery," which is a pretrial procedure for collecting evidence in preparation for trial. The rationale for keeping these records beyond the reach of the discovery process is to encourage participants to engage in candid and free-rein analysis of adverse medical events so as to avoid future mishaps. If the content and nature of these discussions were freely available to parties in litigation,

there would be a natural reluctance to express one's viewpoints in a forthright manner.

Any given state's statute on discovery requires careful reading because it could differ from another state's directive – with important legal consequences. As an example, Hawaii's statute¹ contains several inclusions and exclusions and reads in part: "... the information and data protected shall include proceedings and records of a peer review committee, hospital quality assurance committee, or health care review organization that include recordings, transcripts, minutes, and summaries of meetings, conversations, notes, materials, or reports created for, by, or at the direction of a peer review committee, quality assurance committee, or a health care review organization when related to a medical error reporting system. ... Information and data protected from discovery shall not include incident reports, occurrence reports, statements, or similar reports that state facts concerning a specific situation and shall not include records made in the regular course of business by a hospital ... including patient medical records. Original sources of information ... shall not be construed as being immune from discovery ... merely because they were reviewed ... or were in fact submitted to, a health care review organization."

Predictably, plaintiff attorneys in a medical malpractice lawsuit will attempt to discover information regarding adverse events, hoping to learn about potential errors and judgment lapses, and thus gain an advantage over the defendant doctor and/or hospital. Several recent court cases highlight the contentious nature regarding whether a particular hospital report is to be deemed discoverable. Organized medicine, led by the American Medical Association, has mounted a vigorous response in arguing against the release of peer review and patient safety documents.

The AMA² recently weighed in on the case of *Daley v. Teruel and Ingalls Memorial Hospital*. In 2013, a renal failure patient died in an Illinois hospital from injuries that arose from prolonged hypoglycemia. She had received insulin, but when her blood glucose dropped to

Peer Review continued on page 8

Type 2 Remission: Reducing Liver Fat the Key?

BY DOUG BRUNK

MDEDGE NEWS
EXPERT ANALYSIS FROM AACE 2109

LOS ANGELES – More than 20 years ago, Roy Taylor, MD, began working to further understand the pathogenesis of hepatic insulin resistance in people with type 2 diabetes. It became clear that the main determinant was the amount of fat in the liver. “If you reduced the amount of fat, the resistance went down,” Dr. Taylor, of Newcastle (England) University, said at the annual scientific and clinical congress of the American Association of Clinical Endocrinologists (Diabetologia. 2008;51[10]:1781-9).

“People with type 2 diabetes have been in positive calorie balance for a number of years,” he said. “That’s going to lead to an excess of fat in the body, and liver fat levels tend to

rise with increasing body weight.”

Dr. Taylor and colleagues launched an 8-week study known as Counterpoint, which set out to induce negative calorie balance using a very low-calorie diet – about one-quarter of an average person’s daily food intake – in 11 people with diabetes (Diabetologia. 2011;54[10]:2506-14).

“On a liquid-formula diet, hunger is not a problem after the first 36 hours,” Dr. Taylor said. “This is one of the best-kept secrets of the obesity field. Our low-calorie diet was designed as something that people would be able to do in real life. We included nonstarchy vegetables to keep the bowels happy. That was important. It also fulfilled another point. People didn’t want just a liquid diet. They missed the sensation of chewing.”

After just 1 week of restricted en-

ergy intake, the fasting plasma glucose level normalized in the diabetic group, going from 9.2 to 5.9 mmol/L ($P = .003$), while insulin suppression of hepatic glucose output improved from 43% to 74% ($P = .003$). By week 8, pancreatic triacylglycerol decreased from 8.0% to 1.1% ($P = .03$), and hepatic triacylglycerol content fell from 12.8% to 2.9% ($P = .003$).

“Within 7 days, there was a 30% drop in liver fat, and hepatic insulin resistance had disappeared,” Dr. Taylor said. “This is not a significant change – it’s a disappearance. For one individual, the amount of fat in the liver decreased from 36% to 2%. In fact, 2% [fat in the liver] was the average in the whole group. But what was simply amazing was the change in first-phase insulin response. It gradually increased throughout the 8 weeks of the study to become simi-

lar to the normal control group. We knew right away that a low-calorie diet would start correcting this central abnormality of type 2 diabetes.”

Dr. Taylor created a website devoted to providing information for clinicians and patients about the low-calorie diet and other tips on how to reverse type 2 diabetes. “In the comfort of their own kitchens these people had lost the same amount of weight as in our trial subjects – about 33 pounds,” Dr. Taylor said. “Most of them had gotten rid of their type 2 diabetes. This was not something artificial as part of a research project. This was something that real people would do if the motivation was strong enough.”

To find out if the results from the Counterpoint study were sustainable, Dr. Taylor and his associates

Liver Fat continued on page 9

Peer Review

continued from page 7

16 mg/dL, the treatment team was not alerted and she was later found unresponsive with irreversible brain damage. The issue was whether incident reports from the case that were submitted to a certified PSO (patient safety organization) could be discovered. The Federal Patient Safety and Quality Improvement Act (PSQIA) had created PSOs to aggregate data from multiple sources to reduce adverse events and errors and improve medication safety.

An Illinois lower court ruled that, as part of the discovery process, the hospital had to turn over the report. However, the Illinois Appellate Court ruled in favor of the hospital, holding that the PSQIA protects the report because it is a “patient safety work product.”³ The AMA amicus brief had emphasized that Congress created a safeguarded patient safety process under the PSQIA to encourage hospitals to submit patient safety outcomes without fear of increased liability risk and that “these voluntarily created materials should be used for their intended purpose, not as a roadmap for litigation.”

New Jersey has also ruled against the discovery of a hospital’s self-critical report of a patient’s care, prepared in accordance with New Jersey’s Patient Safety Act.⁴ The plaintiff alleged that, when she reported to the emergency room at Chilton Medical Center complaining of persistent abdominal pain, fever, body aches, weakness, and a phlegmatic cough, she was incorrectly diagnosed as having pneumonia. In fact, she had appendicitis and a pelvic abscess. The New Jersey Supreme Court affirmed the panel’s order shielding the redacted document from discovery, but it reversed the judgment to the extent it ended the defendants’ discovery obligation with respect to this dispute, requiring instead that the lower court address, through current



Dr. Tan is professor of medicine and former adjunct professor of law at the University of Hawaii. This article is meant to be educational and does not constitute medical, ethical, or legal advice. For additional information, readers may contact the author at siang@hawaii.edu.

discovery rules, the proper balancing of interests between requesting and responding parties.

In a recent Michigan case,⁵ the trial court had earlier ruled that peer review documents at issue were in fact discoverable. Like similar statutes elsewhere, Michigan’s peer review privileges serve to encourage participation to improve on patient morbidity and mortality. The case centered on a court order compelling a Michigan hospital to release a physician’s credentialing file in a medical liability lawsuit on the narrow basis that the non-discoverability privilege applied only to peer review deliberations and was inapplicable in the case. The trial judge had opined that, if all materials viewed by peer review committees were deemed undiscoverable, a hospital could never be held accountable for any negligent act within the purview of the committee. In its amicus brief in support of the hospital, the AMA argued that Michigan’s peer review privilege has historically spanned the bounds of the actual peer review process, and it countered that hospitals can be held liable – and are regularly held liable – without opening up these documents and that plaintiffs can use the same discovery mechanisms generally available to plaintiffs in other lawsuits.⁶ The case is currently under appeal.

In contrast, at least two state supreme courts have ruled to limit protections from discovery. The Florida Supreme Court has held that the federal law was intended to improve overall health care rather than to act as a shield to providers. In a case of alleged malpractice with severe neurological injuries, the court took a restrictive interpretation of the PSQIA as it relates to Florida’s risk-management and discovery laws, holding that patient safety work and related reports, when required by state law, do not come under the definition of patient safety work product and were therefore discoverable.⁷

The Pennsylvania Supreme Court has likewise ruled that documents generated by a hospital’s outside contractor are not protected from discovery under the state’s Peer Review Protection Act. It agreed with a lower-court ruling that Monongahela Valley Hospital could not claim privilege for a performance file on an emergency department physician employed by the hospital’s contractor University of Pittsburgh Medical Center Emergency Medicine.⁸ The case alleged that the plaintiff’s chest and back pain was misdiagnosed as reflux disease when in fact it was a myocardial infarct. ■

References

1. Hawaii Revised Statutes §624-25.5 (2012).
2. AMA Morning Rounds. 2018 Aug 1.
3. *Daley v. Teruel and Ingalls Memorial Hospital*, 2018 Ill. App. LEXIS 440 (Ill. App. Ct. 2018).
4. *Brugaletta v. Garcia*, 190 A.3d 419 (NJ. 2018).
5. *Dwyer v. Ascension Crittenton Hospital*. Michigan Supreme Court SC: 158668, 919 N.W.2d 407 (Mi. 2018).
6. AMA Morning Rounds. 2019 Mar 29.
7. *Charles v. Southern Baptist Hospital of Florida, Inc.*, 2017 Fla. LEXIS 231 (Fla. Jan. 31, 2017).
8. *Reginelli v. Boggs*, 2018 Pa. LEXIS 1503 (Pa. 2018).

Liver Fat

continued from page 8

launched the Counterbalance study in 30 patients with type 2 diabetes who had a positive calorie imbalance and whom the researchers followed for 6 months. The 8-week diet consisted of consuming three packets of liquid formula a day comprising 43.0% carbohydrates, 34.0% protein, and 19.5% fat, as well as up to 240 g of nonstarchy vegetables (Diabetes Care. 2016;39[5]:808-15). "This was followed for a 6-month period of normal eating: eating whatever foods they liked but in quantities to keep their weight steady," Dr. Taylor explained. "These people gained no weight over the 6-month follow-up period. They achieved normalization of liver fat, and it remained normal."

The patients' hemoglobin A_{1c} levels fell from an average of 7.1% at baseline to less than 6.0%, and stayed at less than 6.0%. Patients who didn't respond tended to have a longer duration of diabetes. Their beta cells had fallen to a level beyond that capable of recovery.

To investigate if a very low-calorie diet could be used as a routine treatment for type 2 diabetes, Dr. Taylor collaborated with his colleague, Mike Lean, MD, in launching the randomized controlled Diabetes Remission Clinical Trial (DiRECT) at 49 primary care practices in the United Kingdom (Diabetologia. 2018;61[3]:589-98). In all, 298 patients were randomized to either best-practice diabetes care alone (control arm) or with an additional evidence-based weight-management program (intervention arm). Remission was defined as having a hemoglobin A_{1c} level of less than 6.5% for at least 2 months without receiving glucose-lowering therapy.

At 1 year, 46% of patients in the intervention arm achieved remission, compared with 4% in the control arm (Lancet Diabetes Endocrinol. 2019;7[5]:344-55). At 2 years, 36% of patients in the intervention arm achieved remission, compared with 2% in the control arm. The percentage of patients who achieved remission was 5% in those who lost less than 11 lb (5 kg), 29% in those who lost between 11 lb and 22 lb (5-10 kg), 60% in those who lost between 22 lb and 33 lb (10-15 kg), and 70% in those who lost 33 lb (15 kg) or more.

The researchers found that 62 patients achieved no remission at 12 or 24 months, 15 achieved remission at 12 but not at 24 months, and 48 achieved remission at 12 and 24 months. "We haven't got this perfectly right yet," Dr. Taylor said. "There is more work to do in understanding

how to achieve prevention of weight gain, maybe with behavioral interventions and/or other agents such as [glucagonlike peptide-1] agonists. This is the start of a story, not the end of it."

He and his associates also observed that delivery of fat from the liver to the rest of the body was increased in study participants who relapsed.

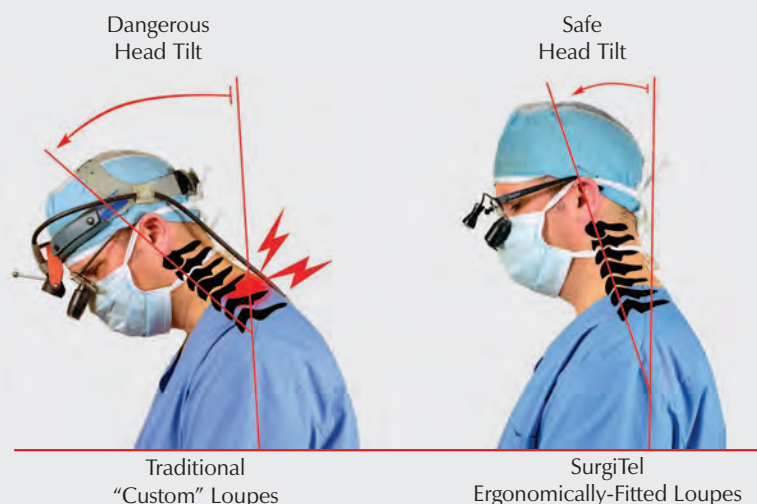
"What effect did that have on the pancreas fat? The people who continued to be free of diabetes showed a slight fall in pancreatic fat between 5 and 24 months," Dr. Taylor said. "In sharp contrast, the relapsers had a complete increase. Over the whole period of the study, the relapsers had not changed from baseline. It appears beyond rea-

sonable doubt that excess pancreas fat seems to be driving the beta-cell problem underlying type 2 diabetes."

Dr. Taylor reported that he has received lecture fees from Novartis, Lilly, and Janssen. He has also been an advisory board member for Wilmington Healthcare.

dbrunk@mdedge.com

Better Loupes for a Longer, Safer Career



SurgiTel loupes help you look down, so your neck can stay up!

SurgiTel®
1-800-959-0153 www.SurgiTel.com

**Vision & Ergonomics
at Work**



Solving Your Vision Challenges

- **Magnification:** SurgiTel offers the most magnification options (2.5x - 8.0x) with our patented lightweight optics
- **Depth-of-Field:** Long depths-of-field for easier, faster work, and better outcomes
- **Field-of-View:** Maximized field-of-view utilizing both oculars for a binocular effect
- **Comfort:** Patented designs minimize ocular weight, reduce strain on the face



... I bought my first pair of loupes from Designs for Vision. Over the years, I began to feel significant pain... Once I started practice, I discovered SurgiTel. I was hooked due to the superior ergonomics... My neck pain has vastly improved... due to the fit and ergonomics. I highly recommend SurgiTel.

-Tejas R. Shah, MD

Contact your Local Representative NOW for an In-Office Demonstration!

www.SurgiTel.com/MyRep

1-800-959-0153

VAM '19: Meeting a Success; Please Share Feedback for Future

With new initiatives, plenty of educational programming and a party that was the talk of the town, the 2019 Vascular Annual Meeting has been deemed a success.

"I've gotten a lot of positive response," said Matthew Eagleton, MD, chair of the SVS Program Committee, which oversees VAM program-

ing. "I think people for the most part were very pleased." He urged SVS members to send in comments and suggestions, to help plan for future meetings. "It's your meeting," he said. "What do you want?" (Send suggestions to education@vascularsociety.org.)



ate courses, six breakfast sessions, three workshops, seven "Ask the Expert" presentations, poster competitions, several lectures and other special forums and events. Industry sponsored a number of symposia and the exhibit hall featured a robust number of booths plus the always-popular "Vascular Live" sessions.

This year's VAM included several new initiatives:

- The Office Vascular Care Pavilion on the exhibit floor featured vendors, equipment and programming aimed at those who work in outpatient settings.
- Programming included the day-long Vascular Residents and Fellows Program, dedicated to vascular trainees.
- And nearly 125 people took advantage of the free professional headshots available in the SVS booth.

Planning for VAM 2020, June 17 to 20, has already begun. Organizers are eyeing tweaks and additions to the trainee program, plus another specialized pavilion. Currently, Dr. Eagleton said, SVS members are enthusiastic about the Toronto location. "We haven't been there in at least 10 years," he said. "People are excited to be in a 'new' city."

NOTE: Travel to Canada will require passports and possibly other travel documents for most attendees. Be sure passports and other documents are up to date. ■

See 2019 VAM Sessions At Your Own Pace

With VAM on Demand, re-live the 2019 Vascular Annual Meeting, review sessions already attended or participate in others for the first time.

Those who took advantage of pre-conference pricing should already have received their codes to access the online materials, which include hundreds of audio/slide presentations.

Others can purchase VAM on Demand now, at \$199 for VAM attendees and \$499 for non-attendees.

VAM on Demand makes possible the impossible: traveling back in time

to view sessions that were missed because of time constraints, being at another session or any other reason. Couldn't attend the breakfast session on tools for physician wellness because it was at the same time as the session on hemodialysis access? Did a meeting conflict with a scientific session? That's no problem; the sessions are part of VAM on Demand.

Access continues until shortly before VAM 2020. Visit vsweb.org/OnDemand19 to purchase this indispensable educational tool. ■

VAM 2019 BY THE NUMBERS

PROFESSIONAL ATTENDEES:

1,674



INTERNATIONAL ATTENDEES:

164

NEW INITIATIVES:

- ✓ The Office Vascular Care Pavilion
- ✓ The Vascular Residents and Fellows Program
- ✓ The 'Vascular Spectacular' Gala

3



DOLLARS RAISED FOR THE SVS FOUNDATION DURING THE GALA AUCTIONS AND PADDLE RAISE:

\$166,784



ABSTRACTS PRESENTED:

444



JVS AND JVS-VL SOCKS DISTRIBUTED:

(258 PAIRS) 516



HEADSHOTS TAKEN AT THE SVS BOOTH:

123



SVS

Society for Vascular Surgery

Meet the New SVS President, Kim Hodgson, MD

SVS President Kim Hodgson, MD, took over the leadership reins of the Society for Vascular Surgery during the 2019 Vascular Annual Meeting in June. He discusses his upcoming year as president in a series of questions and answers below.

Q. What are top priorities you want to address? You have been stressing quality – why good outcomes are no longer good enough, government perspective, practice guidelines



DR. HODGSON

and appropriate use criteria, for example – will this continue? What can SVS do about the topic? Are there outcomes you will work towards?

A. Like it or not, the care that we render to our patients is coming under greater

scrutiny from governmental regulators, health-care insurers and even our patients themselves. No longer is it enough to just be technically competent, we must now also be good stewards of our healthcare system's resources. This requires us to know more than simply how to perform a revascularization, but also when and when not to even do so, as well as which revascularization option is best for any given patient. Vascular surgeons are well-positioned to flourish in this new environment since only we have the full scope of diagnostic and therapeutic options in our armamentarium. Over the past decade the SVS has developed an infrastructure to support the delivery of such evidence-based quality care, beginning with our Patient Safety Organization and its Vascular Quality Initiative. The SVS VQI has a track record of identifying best practices and educating our members about them so that they can transition the care they provide to their patients as our knowledge evolves. We are further supplementing that with our new SVS Quality Council and the development of Appropriate Use Criteria. These instruments of quality improvement are the foundation of our next launch, the Vascular Center Verification and Quality Improvement program, a collaboration with the American College of Surgeons that aims to ensure that our patients receive the right care, at the right time, in the right location, and delivered by the right physicians, that being those physicians dedicated to these principles.

Q. What other issues and challenges stand out for your attention?

A. The vascular space is composed of physicians from a variety of backgrounds who need to

work collaboratively for the greater good of our patients, regardless of each physician's individual heritage. The SVS is actively engaged in collaborative initiatives with our colleagues in other specialties who share our patient-focused core values to move the needle in the right direction for all patients, regardless of who provides their vascular care. Overcoming the traditional intra-specialty rivalries, however, will be necessary to fully achieve this objective.

Q. What advice would you give our members as you and they look down the road to the future?

A. Much of the vascular care we are delivering today bears little resemblance to that which I was trained in some 30 years ago. So it is vital that we all maintain open minds about new therapeutic alternatives as they are developed, but also continue to hold to the standard of evidence-based decision-making. While many of today's patients benefit from the technological advancements of the past few decades, some continue to be best treated by the time-tested techniques of open surgical reconstruction, and vascular surgeons should not shy away from that reality.

No longer is it enough to just be technically competent, we must now also be good stewards of our healthcare system's resources.

Q. What would you like your presidency remembered for?

A. Truthfully, anyone's SVS presidential year is simply a small piece of their overall contribution to the specialty of vascular surgery over the span of their careers. In my case I hope to be remembered as someone who embraced the transition to endovascular care early on and was willing to stand up for that belief despite significant opposition from the academic vascular surgery community at that time. My willingness to do so was rooted in my "call them as I see them" personality and the fact that I didn't fear offending the established vascular surgery authorities. Never envisioning myself attaining what is now the pinnacle of my career, the presidency of the Society for Vascular Surgery, I did not feel that I was putting any career goal in jeopardy by speaking my truth. We must all be willing to speak our truth.

(Vascular Specialist will present brief profiles of the 2019-20 SVS officers in the September issue.) ■

Your SVS: Apply For Membership By Sept. 1

The third membership application deadline for 2019 is approaching quickly, on Sept. 1.

SVS members receive substantial benefits, including publications, complimentary subscriptions (with the exception of Senior members) to the *Journal of Vascular Surgery*; education and networking with leaders at exclusive member pricing, including discounts on the Vascular Annual Meeting, Vascular Research Initiatives Conference and the Coding & Reimbursement Workshop; and management resources, including evidence-based clinical practice guidelines.



Members also have opportunities for leadership, scholarships, awards and research grants for every career stage, and they enjoy professional standing; advocacy in Washington, D.C., for decisions that affect their lives and livelihoods; mentorship; a job board and more.

And SVSConnect, a member-exclusive online community, provides informative discussions and the opportunity to connect with peers, colleagues and leaders. Members can learn about upcoming events, share files and access resources.

Active members in good standing also may take advantage of SVS' new (in late 2018) professional, trademarked Fellow designation. They may add the initials FSVS™ after their names in any usage, such as signature lines, letter-head and door signage. Distinguished Fellows may additionally add DFSVS™.

View membership benefits in detail at [vsweb.org/MemberBenefits](https://www.vascularspecialist.org/MemberBenefits). ■

From Our Journals

Both the *Journal of Vascular Surgery* and *JVS-Vascular and Lymphatic Disorders* have open-source articles available through Oct. 31.

JVS: Researchers studied the SVS Wound Ischemia foot Infection (WIFI) classification system and determined the system can identify CLTI patients most likely to benefit from revascularization. The system also may provide improved prognostication and information on risk and outcomes. More analysis is needed to further refine WIFI, they concluded. See [vsweb.org/JVS-Wifi](https://www.vascularspecialist.org/JVS-Wifi).

JVS-VL: Researchers found strut penetration of inferior vena cava filters is high, regardless of filter type, and that adjacent organ involvement increases over time. Close follow-up and retrieval as soon as the filters are no longer needed are required, researchers concluded. See [vsweb.org/JVS-VL-filters](https://www.vascularspecialist.org/JVS-VL-filters). ■

Education: Know Your Coding, Keep the Money You Earned; Learn at Sept. Workshop

SVS members: Are you getting all the reimbursement money to which you are entitled? Are you leaving that money on the table, instead of in your practice?

“Correct coding is key in vascular surgery,” said Teri Romano, MBP, CPC, CMDP, one of the faculty leaders of the upcoming SVS 2019 Coding & Reimbursement Workshop. “If you code correctly, you will increase revenue.”

The workshop, plus an optional course on Evaluation & Management Codes, will be Sept. 20 to 21 at the Hyatt Rosemont, just minutes from O’Hare International Airport. The location is a change from previous years.

Correct coding must include the supporting documentation. Payers commonly ask for the dictation on operative notes, to ensure that everything the surgeon has coded is present in the documentation, she said.

Vascular surgery is a very complex specialty, requiring a large number of codes. Moreover, vascular surgery has seen the most code changes in the past five to six years, compared with other surgical specialties, she said.

Both she and course leader Dr. Sean Roddy highly recommend that at least one person in a practice be



JAROSLAV NOSKA/GETTY IMAGES

All Surgeons Need to Know Coding Or Work with Someone Who Does

Whether in an academic or private practice or employed by a hospital or hospital system, a vascular surgeon needs to be up-to-date on coding. “For every practice model, how you code and how you document is critical,” emphasized Teri Romano, a workshop faculty member.

A surgeon employed at an institution must still oversee and take responsibility for coding and any denials of reimbursement. “If a surgeon loses sight of the billing, he or she can also lose sight of compensation and reimbursement,” she said. “RVU productivity and compensation are all being calculated and counted and it’s all tied to accurate coding.”

knowledgeable about coding. Incorrect coding costs a surgeon both time and money, decreasing reim-

bursement and causing delay.

She used EVAR as an example of the impact of accurate coding:

EVAR, a procedure with a number of billable codes to include for reimbursement. “If you don’t include some or all of those codes, you lose money every time you submit an EVAR for payment,” she said.

Other important topics covered in the workshop include:

- Bundling, used for a number of comprehensive procedures. “If no one in the practice knows that additional procedures — such as imaging and catheterization — can be billed, they’ll lose money,” she said.
- When to separate billable items
- Reviewing changes from previous years
- Understanding the Global Surgical Package
- Applying modifiers for streamlined reimbursement

She also recommended using coding software, calling it “expensive but essential.” A surgeon will cover that expense with “one month of good coding,” she said, adding the same is true of the Coding & Reimbursement Workshop. “People tell us that what they learn within two hours will return their cost of the course in one month,” she said.

For more details, including fees, visit vsweb.org/Coding19. ■

SVS Foundation Assists With Screening Veterans

At least one military veteran discovered he had an abdominal aortic aneurysm large enough to be of concern during a large-scale screening in late July in which the SVS Foundation participated, along with several SVS members.

Volunteers screened 481 people over four days at the 120th Veterans of Foreign Wars National Convention in Orlando, Fla. New Orleans-based AAAneurysm Outreach conducted the screening, sponsored by W.L. Gore & Associates and Philips Ultrasound, with support from the SVS Foundation and the Society for Vascular Ultrasound, which provided ultrasound technicians from the Orlando area.

This is the third straight year for the SVS Foundation’s involvement in this annual VFW screening. On-site and consulting physicians included SVS members Drs. Adam Levitt, Robert Winter and Richard Teed as

well as Drs. Charles Thompson and Jon Wesley.

Over the four days, the on-site vascular surgeon physicians consulted with the veteran who was discovered to have a 4.0-cm AAA. A veteran with a AAA measuring 2.9 centimeters (screeners were particularly flagging those measuring 3.0 and more) also consulted with a physician because of a family history of AAA.

Other participants received information and consultations for issues involving a repaired AAA, aortic calcification, a renal cyst, enlarged aortas, atrial fibrillation and high blood pressure.

The SVS Foundation’s participation in this and other screenings is part of its expanded mission that includes an emphasis on members in community practice, prevention, patient education and, ultimately, the public’s vascular health. ■



AAAANEURYSM OUTREACH

A military veteran receives a BP reading during the 120th Veterans of Foreign Wars National Convention in July. The SVS Foundation helped support 4 days of screening, including for AAA, during the convention.

"Vascular Spectacular" Gala Was Spectacular Indeed!

Dr. Michel Makaroun could not be more delighted with the "Vascular Spectacular" gala, an addition to the 2019 Vascular Annual Meeting which is sure to be repeated for years to come.

The evening featured entertainment, including the incomparable Dr. Peter Gloviczki, who wowed the crowd with his magic show; a silent online auction and live auction that featured plenty of spirited bidding, and a Paddle Raise to raise funds for the SVS Foundation.

"It was fun from start to finish," Dr. Makaroun said.

The two auctions and the Paddle Raise together garnered more than \$166,000 for the SVS Foundation Foundation's grants and initiatives.

Dr. Makaroun said he has long thought VAM should include a social event to bring everyone together. He added that most societies have a

social gathering, even large societies such as the one that inspired our gala, the Society for Interventional Radiology. "SIR has had a very successful gala dinner for more than a dozen years that everybody tries to attend," he said, raising substantial sums for its foundation.

He proposed the gala in place of the traditional President's Reception. When the concept received overwhelming support, he recruited "great people with insight on how to put a party together," chaired by Drs. Cynthia Shortell and Ben Starnes.

Indeed, the gala was sold out nearly six weeks ahead of time, with extra tables squeezed in to accommodate as many people as possible. Members contributed more than 70 items for live and silent auctions. The crowd included all ages and attendees danced so enthusiastically the DJ apologized for ending the evening.



NATIONWIDE PHOTOGRAPHERS

Bidding for auction items can be serious business. The 'Vascular Spectacular' Gala at VAM 19 featured two auctions – live and silent – plus a Paddle Raise to raise funds for the SVS Foundation. The gala was sold out weeks ahead and members already are anticipating 2020.

"I can only say it was an unqualified success," smiled Dr. Makaroun. "And I think the social life of the SVS meeting will benefit. I heard more than one person say, 'Now, maybe my wife (or husband) will come with me to the VAM.'"

"All in all, I think it was a positive step in making the annual meeting more than just a scientific meeting," he said, "while also raising money for the SVS Foundation."

SVS President Dr. Kim Hodgson has vowed the gala will return in 2020.

Since handing over his gavel to Dr. Hodgson, Dr. Makaroun now assumes the chair of the SVS Foundation. How will he top the success of his 2019 gala?

The answer was quick: be able to host more people in 2020. "Hopefully that will be the way to top this year!" ■

Scholarships Available;
See Website for Details

Maximize Your Reimbursements

SVS 2019 Coding & Reimbursement Workshop September 20–21, 2019

Hyatt Rosemont, Rosemont, Illinois
Near O'Hare International Airport

Learn to code accurately to:

- Maximize your reimbursement
- Avoid red tape
- Limit your risk of audit

Whatever your practice setting — academic, private practice or hospital system — how you code and document is critical to increasing revenue

Register Today: vsweb.org/Coding19

SVS | Society for Vascular Surgery

Value-Based Metrics Gain Ground in Physician Employment

BY GREGORY TWACHTMAN
MDEDGE NEWS

Physician employment contracts increasingly include value- and quality-based metrics as bases for production bonuses, according to an analysis of recruitment searches from April 1, 2018, to March 31, 2019.

Metrics such as physician satisfaction rates, proper use of EHRs, following treatment protocols, and others that don't directly measure volume are becoming more commonplace in employment contracts, though volume measures still are included, according to Phil Miller, vice president of communications at health care recruiting firm Merritt Hawkins and author of the company's 2019 report on physician and advanced practitioner recruiting incentives, released July 8.

Of 70% of searches that offered a production bonus, 56% featured a bonus based at least in part on quality metrics, up from 43% in 2018. The finding represents the highest percent of contracts offering a quality-based bonus that the company has tracked, according to the report.

Merritt Hawkins' review is based on a sample of the 3,131 permanent physician and advanced practitioner search assignments that Merritt Hawkins and its sister physician staffing companies at AMN Healthcare have ongoing or were engaged to conduct from April 1, 2018, to March 31, 2019.

Other common value-based metrics include reduction in hospital readmissions, cost containment, and proper coding.

While value-based incentives are on the rise, "facilities that employ physicians want to ensure they stay

Top ten physician starting salaries

An overview of the salaries, signing bonuses, and other incentives offered to recruit physicians, physician assistants and nurse practitioners. Based on a sample of 3,131 search assignments.



Source: Merritt Hawkins' 2019 Review of Physician and Advanced Practitioner Recruiting Incentives

productive, and 'productivity' still is measured in part by what are essentially fee-for-service metrics, including relative value units [RVUs], net collections, and number of patients seen."

RVUs were used in 70% of production formulas tracked in the 2019 review, up from 50% in the previous year and also a record high.

Mr. Miller noted that employers are seeking the "Goldilocks zone," a balance point between traditional productivity measures and value-based metrics, very much a work in progress right now.

A possible corollary to the increase in production bonuses is a flattening of signing bonuses. During the current review period, 71% of contracts came with a signing bonus, up slightly from 70% in the previous year's report and down from 76% 2 years ago.

Signing bonuses in the review period for the 2019 report averaged \$32,692, down from \$33,707 during the 2018 report's review period.

Overall, family practice physicians remain the highest in demand for job searches, but specialty practice is gaining ground.

For the 2018-2019 review, family medicine was the most requested search by specialty, with 457 searches requested. While the ranking remains No. 1, as it has for the past 13 years, the number of searches has been on a steady decline. Last year, there were 497 searches, which was down from 607 2 years ago and 734 4 years ago.

Mr. Miller said there were a few reasons for the lower number of search-

es. "One is just the momentum shifts that are kind of inherent to recruiting. People put all of their resources into one area, typically, and in this case it was primary care and they realized, 'Hey wait a minute, we need some specialists for these doctors to refer to, so now we have to put some of our chips in the specialty basket.'"

The Baby Boomers also is having an effect – as they age and are experiencing more health issues, more specialists are needed.

"[Older patients] visit the doctor twice or three times the rate of a younger person and they also generate a much higher percentage of inpatient procedures and tests and diagnoses," he said.

On the opposite end of the spectrum, "younger people are less likely to have a primary care doctor who coordinates their care," Mr. Miller said. "What they typically do is go to an urgent care center, a retail clinic, maybe even [use] telemedicine so they are not accessing the system in the same way or necessarily through the same provider."

Demand for psychiatrists remained strong for the fourth year in a row, but the number of searches has declined for the last several years. For the current review period, there were 199 searches, down from 243 the previous year, 256 2 years ago, and 250 3 years ago.

There is "pretty much a crisis in behavioral health care now because there are so few psychiatrists and the demand has increased," Mr. Miller noted.

gtwachtman@mdedge.com

VAM on Demand

View VAM
Materials at
Home and
the Office

JUST \$199
FOR VAM
ATTENDEES

\$499
FOR NON-ATTENDEES

To purchase, visit
vsweb.org/OnDemand19

- Access hundreds of sessions until VAM 2020
- See those you missed, review others at your own pace
- Download materials and presentations

2019
VASCULAR
ANNUAL MEETING
WASHINGTON, DC
at the GAYLORD NATIONAL RESORT & CONVENTION CENTER
NATIONAL HARBOR, MD

Peripheral Artery Disease Risk Persists Long Term After Smoking Cessation

BY HEIDI SPLETE

MEDGE NEWS
FROM THE JOURNAL OF
THE AMERICAN COLLEGE
OF CARDIOLOGY

Aadults who quit smoking reduced their risk for peripheral artery disease in the short term, but remained at increased risk for up to 30 years, compared with never-smokers, based on data from more than 13,000 adults in a community-based study.

Most reports on the impact of smoking cessation on cardiovascular disease have focused on coronary heart disease (CHD), and stroke, while data on the effects of smoking cessation on peripheral artery disease (PAD) are limited, wrote Ning Ding, MBBS, SCM, of the Johns Hopkins Bloomberg School of Public Health, Baltimore, Md., and colleagues.

To compare the impact of smoking on PAD, CHD, and stroke, the researchers used data from the Atherosclerosis Risk in Communities (ARIC) study, which included 15,792 adults aged 45-64 years in four communities. The findings were published in

A significantly elevated risk remained for PAD for up to 30 years after smoking cessation and for CHD for up to 20 years after smoking cessation, compared with never-smokers.

the Journal of the American College of Cardiology.

The study population of 13,355 individuals had no baseline history of PAD, CHD, or stroke. Over a median 26 years of follow-up, the researchers identified 492 cases of PAD, 1,798 cases of CHD, and 1,106 cases of stroke.

The risk of all three conditions began to decline within 5 years of smoking cessation, which could be

Although the pathophysiology of smoking and cardiovascular disease has yet to be teased out, the current study findings support the public health message that any and all smokers can improve their health by quitting any time: "It is never too early or too late to benefit from quitting," wrote Nancy A. Rigotti, MD, and Mary M. McDermott, MD, in an accompanying editorial. The editorialists questioned whether the findings were generalizable to patients with mild PAD or those who are not hospitalized. However, they found the data consistent with previous studies suggesting that atherosclerosis is not homogeneous. "Differences in shear stress and hemodynamic forces among the femoral, coronary, and carotid arterial beds may also explain variability in associations of smoking and smoking cessation with the incidence of PAD versus myocardial infarction or stroke," they said.

The findings also support the need to emphasize PAD in public health messages and provide an opportunity to educate patients about the risks of limb loss and impaired mobility associated with PAD, they said.

encouraging to smokers who wish to quit, the researchers noted. In addition, the longer the duration of smoking cessation, the lower the risk for all three conditions (see illustration).

However, a significantly elevated risk remained for PAD for up to 30 years after smoking cessation and for CHD for up to 20 years after smoking cessation, compared with never-smokers.

The researchers also found a roughly fourfold increased risk for PAD for smokers who smoked for 40 or more pack-years, compared with never-smokers, which was greater than the 2.1 hazard ratio for CHD and 1.8 HR for stroke.

In addition, current smokers of at least 1 pack per day had a significantly greater risk of PAD, compared with never-smokers (HR, 5.36) that was higher than the risk for CHD or stroke (HR, 2.38 and HR, 1.88, respectively).

The study findings were limited by several factors including the reliance on self-reports, potential misclassification of data, and the potential exclusion of mild PAD cases that did not require hospitalization, the researchers noted. However, the results support the

value of encouraging smokers to quit and support the need to include PAD risk in public health information, they said. "Although

The ARIC study was funded by the National Heart, Lung, and Blood Institute, National Institutes of Health. Lead author Dr. Ding had

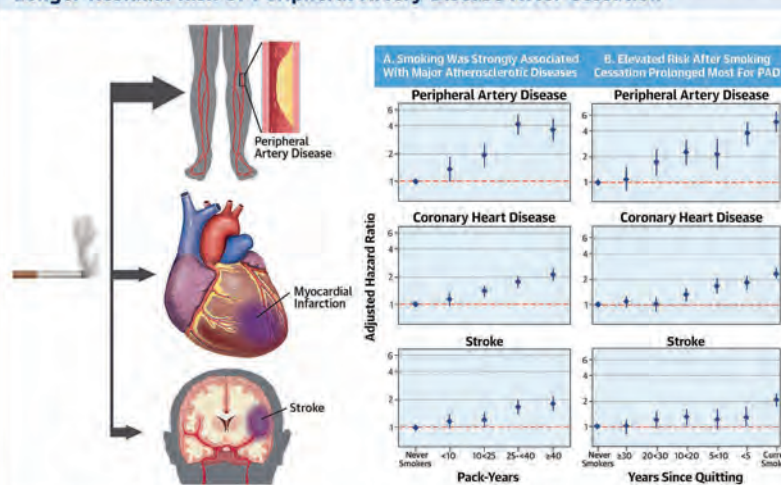
PERSPECTIVE by Dr. Rigotti and Dr. McDermott

Keep encouraging all smokers to quit

Many clinicians put a low priority on smoking cessation, the editorialists wrote, but "long-term tobacco abstinence is achievable using a chronic disease management approach resembling the strategies used to manage other risk factors," they said. They cited the American College of Cardiology's recently released "Expert Consensus Decision Pathway on Tobacco Cessation Treatment." The pathway outlines advice for clinicians, including how to provide a brief intervention and resources along with advice to quit smoking.

Dr. Rigotti is affiliated with Harvard Medical School, Boston. Dr. McDermott is affiliated with Northwestern University, Chicago. Dr. Rigotti disclosed royalties from UpToDate, serving as a consultant for Achieve Life Sciences, and travel expenses from Pfizer for unpaid consulting. Dr. McDermott disclosed research funding from Regeneron; the National Heart, Lung, and Blood Institute; the National Institute on Aging; and the American Heart Association; plus research support from Chromadex, ReserveAge, Hershey, and ViroMed.

CENTRAL ILLUSTRATION: Smoking Is Associated With Higher Risk of Peripheral Artery Disease Compared With Coronary Heart Disease and Stroke and Longer Residual Risk of Peripheral Artery Disease After Cessation



Ding, N. et al. J Am Coll Cardiol. 2019;74(4):498-507.

public statements about smoking and [cardiovascular disease] have been focusing on CHD and stroke, our results indicate the need to take account of PAD as well for comprehensively acknowledging the effect of smoking on overall cardiovascular health," they added.

no financial conflicts to disclose; co-authors disclosed relationships with Bristol-Myers Squibb and Fukuda Denshi.

SOURCE: Ding N et al. J Am Coll Cardiol. 2019 Jul 22;74:498-507. doi: 10.1016/j.jacc.2019.06.003.

Continued innovation. Powered by over 20 years of EVAR experience.

The GORE® EXCLUDER® Device family demonstrates our commitment to advancing EVAR treatment solutions in new and innovative ways.

The most-studied* EVAR
stent graft, designed for
durable outcomes.

GORE® EXCLUDER® AAA Endoprosthesis

The only FDA approved,
all-in-one iliac branch solution.

GORE® EXCLUDER® Iliac Branch Endoprosthesis



INDICATIONS FOR USE IN THE US: Iliac Branch and Internal Iliac Components. The GORE® EXCLUDER® Iliac Branch Endoprosthesis (IBE) is intended to be used with the GORE® EXCLUDER® AAA Endoprosthesis to isolate the common iliac artery from systemic blood flow and preserve blood flow in the external iliac and internal iliac arteries in patients with a common iliac or aortoiliac aneurysm, who have appropriate anatomy, including: Adequate iliac / femoral access; minimum common iliac diameter of 17 mm at the proximal implantation zone of the IBE; external iliac artery treatment diameter range of 6.5–25 mm and seal zone length of at least 10 mm; internal iliac artery treatment diameter range of 6.5–13.5 mm and seal zone length of at least 10 mm; adequate length from the lowest major renal artery to the internal iliac artery to accommodate the total endoprosthesis length, calculated by adding the minimum lengths of required components, taking into account appropriate overlaps between components. **GORE® EXCLUDER® AAA Endoprosthesis Components used in conjunction with GORE® EXCLUDER® Iliac Branch Endoprosthesis: Trunk-Ipsilateral Leg Component.** The Trunk-Ipsilateral Leg is intended to provide proximal seal and fixation for the endovascular repair of the aneurysm. **Contralateral Leg Endoprosthesis Component.** The Contralateral Leg Endoprosthesis is intended to bridge the GORE® EXCLUDER® Device Trunk-Ipsilateral Component to the GORE® EXCLUDER® Iliac Branch Endoprosthesis following deployment of the GORE® EXCLUDER® Iliac Branch Endoprosthesis. Additionally, the Contralateral Leg Endoprosthesis is intended to be used for distal extension of the Iliac Branch Component in the external iliac artery. The Iliac Branch Component can treat external iliac artery diameters up to 13.5 mm. This ability to extend the Iliac Branch Component distally with any Contralateral Leg Endoprosthesis expands the external iliac artery treatment range up to 25 mm. **Aortic Extender Endoprosthesis and Iliac Extender Endoprosthesis Components:** The Aortic and Iliac Extender Endoprostheses can be used after deployment of the GORE® EXCLUDER® Iliac Branch Endoprosthesis and GORE® EXCLUDER® AAA Endoprosthesis. These extensions are used when additional length and / or sealing for aneurysmal exclusion is desired. **CONTRAINDICATIONS:** The GORE® EXCLUDER® Iliac Branch Endoprosthesis is contraindicated in: Patients with known sensitivities or allergies to the device materials. All components of the GORE® EXCLUDER® Iliac Branch Endoprosthesis and the GORE® EXCLUDER® AAA Endoprosthesis contain ePTFE, FEP, nitinol (nickel-titanium alloy), and gold. Patients with a systemic infection who may be at increased risk of endovascular graft infection Refer to *Instructions for Use* at goremedical.com for a complete description of all warnings, precautions and adverse events. Rx Only



Learn more at goremedical.com/aortic

W. L. Gore & Associates, Inc. | Flagstaff, AZ 86004 | goremedical.com

Products listed may not be available in all markets. GORE®, EXCLUDER®, and designs are trademarks of W. L. Gore & Associates.
© 2018 W. L. Gore & Associates, Inc. AX1403-EN1 SEPTEMBER 2018