

JULY 2022

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- **CEU 2022 PREVIEW:** A deep dive into the indications, contraindications, and maybes when prescribing testosterone replacement therapy
- **CONTROL ISSUES:** The latest Endocrine Society Guideline examines hyperglycemia in hospitalized patients.

MEET THE NEW PRESIDENT:

Ursula B. Kaiser, MD,
begins her role as
2022 – 2023 Endocrine
Society president.

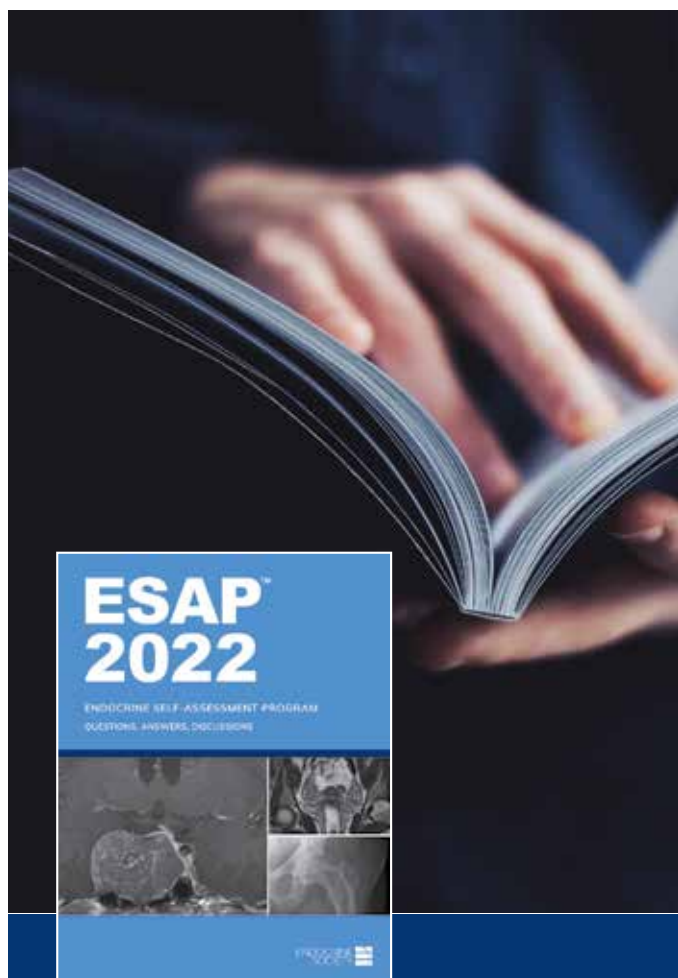
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The Indications, Contraindications, and Maybes When Prescribing Testosterone Replacement Therapy

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**ENDOCRINE
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Hormone Science to Health



Meet New Endocrine Society President Ursula B. Kaiser, MD

The Endocrine Society is pleased to welcome its president for 2022 – 2023, Ursula B. Kaiser, MD, who took office during **ENDO 2022** in Atlanta, Ga. A physician-scientist, Kaiser is chief of the Division of Endocrinology, Diabetes, and Hypertension; George W. Thorn, MD, Distinguished Chair in Endocrinology; and director of the Brigham Research Institute at Brigham and Women's Hospital, as well as professor of medicine at Harvard Medical School, Boston, Mass. She has served as president-elect since March 2021.

Kaiser succeeds Carol H. Wysham, MD, who ended up serving a longer-than-usual 15 months since **ENDO 2022** was moved to June this year, when Kaiser officially took her oath. "I'm thrilled," Kaiser says. "I'm humbled to have this opportunity to lead the Endocrine Society."

Kaiser's research and clinical work focuses on neuroendocrinology and reproductive endocrinology. She is a past vice president of the Endocrine Society and is formerly a deputy editor-in-chief of *The Journal of Clinical Endocrinology & Metabolism*. She's held many roles with the Endocrine Society and was selected to receive the 2021 Sidney H. Ingbar Laureate Award for Distinguished Service for her contributions to the Society and the field at large.

Captivated by Hormones

Before arriving at Brigham and Women's Hospital, Kaiser received her medical degree and completed her clinical residency in internal medicine and fellowship in endocrinology at the University of Toronto School of Medicine. "When I started medical school, one of our first courses as first-year medical students was a very basic introduction of how to talk to patients, how to take a history, how to examine them," she says. "We were in small groups of four to six people, and it so happened that our preceptor was an endocrinologist, entirely coincidentally."

Kaiser tells *Endocrine News* that at the time, the hospital admitted patients for evaluation and investigation more than they do currently, and their preceptor (Dr. Ivey Fettes) used the opportunity for the students to see those patients. "That was really my first exposure to endocrinology," she says. "I still have such a vivid picture of walking into a patient's room — it was a patient with acromegaly, with a pituitary tumor making too much growth hormone, which results in very characteristic features. It's the kind of diagnosis that you can make on the subway."

"It was just amazing to me," she continues, "to think about how hormones affect every system in the body. That really captivated my interest. I joined [the preceptor] for some of her clinics. In fact, her clinical practice was focused primarily on reproductive endocrinology, which is still an area of my interest to this day. She had a huge influence on me; from that first year of medical school on, I decided that I was going to become an endocrinologist."

Unexpected Lab Partner

Kaiser has been involved in service to the Endocrine Society continuously since 1997. She has served as a member or chair on the Student Affairs Committee, Publications Committee, Laureate Awards Committee, Annual Meeting Steering Committee, Research Affairs Committee, and Committee on Governance Affairs. She has also served on two **ENDO** Task Forces, the Laureate Awards Review Task Force, and most recently, the Governance Task Force. She also led a Basic Science Task Force when she served as vice president.

She attended her first Endocrine Society annual meeting while she was still an endocrine fellow in Toronto, and she recalls the serendipitous sequence of events that led her to her career, and even beyond: "I was in the poster area exhibit hall of the Endocrine Society meeting. One of my endocrine mentors, Dr. Robert Josse from Toronto, was there, and I'd

been speaking with him to try to figure out who to train with for a research fellowship. He says, 'I know just the person you should work with. He's right over there. I'm going to take you over and introduce you to him.' He introduced me to Dr. William Chin, who was an endocrinologist physician-scientist doing research in two areas: thyroid hormone action and gonadotropin regulation.

"Gonadotropin regulation was just perfect for me because it combined my interest in pituitary neuroendocrinology and reproductive endocrinology. I met with at ENDO and I was really excited and interested in his work. After that, I went to Boston to visit his group and his lab, and subsequently moved to Boston and started working with him."

And the rest is history. "The rest really *is* history," Kaiser says, "because the plan was that I would work there for three years, then move back to Toronto, set up my research program, and be a physician-scientist at University of Toronto. While I was in Bill's lab, I met the person who is now my husband, whose lab was down the hall."

"Thinking About Diversity in Every Way"

As president of the Endocrine Society, Kaiser says one of her main priorities is continuing to recognize and foster diversity and inclusion in all areas of what we do — among our leadership, among our staff, among those we serve, our members, our patients, among our communities that we all live and work in. She says we need to think about diversity more broadly as well — gender, race, ethnicity, but also nationality, sex, age, and even extending out to interests like basic science and clinical science. "We need to be thinking about diversity in every way," she says.

"As a physician-scientist," she continues. "I really appreciate the importance of having scientists among our membership, basic scientists, PhD scientists. That's a group that we want to be sure that we retain, nurture, foster, and encourage."

For Kaiser, bringing in more international, global voices will help strengthen our diversity. "Certainly, it's important to continue to support and address the needs of our U.S. members, but also, our global community, as well," she says.

And as we think about our global community, Kaiser would like to prioritize protecting the environment. Climate change, pollution, and environmental changes have all been implicated in adverse health outcomes, and endocrine health is no exception. "Obesity and diabetes are impacted by pollutants and pollution," she says. "We need to be thinking not only about endocrine-disrupting chemicals, but also climate and other environmental impacts on our health."

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One of the best things about being an academic endocrinologist, Kaiser says, is that she gets the best of both worlds, and that every day is interesting, something that should prove to dovetail nicely with her tenure as president. "You're mentoring and teaching the people in the lab," she says. "Then, if that's not going well, you're seeing patients and you get the reward of the feedback from the patients. You're just always learning new things. No two days are the same." **EN**

– Derek Bagley



FROM THE **EDITOR**

Endocrinology: The Learning Never Stops

This month, *Endocrine News* is coming out of gate immediately after **ENDO 2022** in Atlanta (and virtually) with an issue devoted to a topic that is always on the top of mind of clinicians and scientists alike: education.

Regardless of a clinician's stage in his or her career, education plays such an important role throughout the lifecycle of a practicing endocrinologist. To highlight the importance of continuing education, we have a feature that discusses three of the sessions offered at this year's Endocrine Society Clinical Endocrinology Update in Miami (and virtually) this September. In "A Deep Dive: The Indications, Contraindications, and Maybes When Prescribing Testosterone Replacement Therapy" (p. 34), Kelly Horvath talks with Arthi Thirumalai, MBBS, about her two sessions that detail treating low testosterone in men, risk factors, comorbidities, as well as the risk factors. "There's a lot of inappropriate prescribing that happens through clinics that are not run by physicians or by regulated facilities," she says, "probably stemming from the fact that if physicians do not feel comfortable having these conversations with their patients, then the patient might then go and seek care in other alternative practices. It's upon us to be educated about these things so we can have those conversations with our patients."

On the heels of the release of the Endocrine Society's latest Clinical Practice Guideline, "Management of Hyperglycemia in Hospitalized Adult Patients in Non-Critical Care Settings: An Endocrine Society Clinical Practice Guideline," Eric Seaborg has provided an in-depth look of what to expect from this new guideline and why it is remarkably different from previous guidelines in "Control Issues" on page 28. "Many of the recommendations in the earlier guideline were based on consensus of panel members without systematic reviews," says Mary T. Korytkowski, MD, professor of medicine, University of Pittsburgh Medical Center, Pittsburgh, Pa., and chair of the Clinical Guidelines Committee. "There was a lot of mixed-messaging about how to care for these patients — including what their glycemic goals should be and how to best go about achieving those goals."

Since we're discussing the Society's Clinical Practice Guidelines, one of the practice's most important educational tools for endocrinologists,

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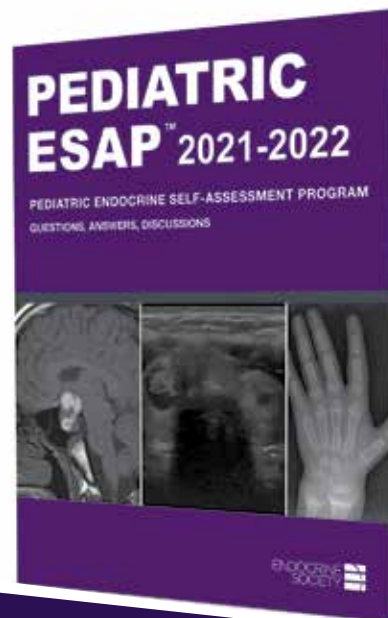
Kelly Horvath looks at the “refresh” the guidelines have undertaken recently. The Endocrine Society has aligned with over 110 other medical and scientific societies around the world in adopting the GRADE methodology, new standards that will help create the most accurate practice guidelines possible using evidence over expert opinions, minimizing conflicts of interest, and, in a remarkable and refreshing move, considering the input and opinions from actual patients. “We’re able to show our work in a way now that we weren’t able to before, and that speaks to the transparency of the process, which we think is really important,” according to Christopher R. McCartney, MD, professor of endocrinology, endocrinology, and metabolism, University of Virginia School of Medicine, Charlottesville, Va., a member of the Clinical Guidelines Committee since 2016 and who chaired it from 2018 to 2021. “GRADE is probably the most widely accepted standard for guideline development, and the GRADE Working Group continues to refine that methodology.”

Finally, who better to discuss endocrine education than Society members who have been recognized with the highest award for members who have made a difference in education by being honored with the Endocrine Society’s Outstanding Educator Laureate Award? Glenda Fauntleroy Shaw spoke with Kenneth D. Burman, MD; Carolyn Becker, MD; Ann Danoff, MD; and Laurence Katznelson, MD, who discuss the most important issues facing endocrine education right now, the best advice they ever received, as well as words of wisdom for the next generation. “I cannot express how deeply I have loved my life in endocrinology, and how lucky I feel that I found my way into the field,” says Danoff, former chief of medicine at the Philadelphia VA and vice chair of medicine at Perelman School of Medicine, University of Pennsylvania, Philadelphia, when asked what she would tell a student to encourage them today. “Endocrinology offers a window into the most magnificent choreography imaginable. If you are drawn in, just do it.”

I hope this issue gives you some insight to many aspects of endocrine education whether you’re an early-career basic scientist, a mid-career clinician, or a senior-level researcher spending most of your days at the bench unlocking the secrets of endocrine science. Learning is a lifelong process, and these are just a few examples of how the Endocrine Society can help you on your educational journey. 

— Mark A. Newman, Editor, *Endocrine News*

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Endocrine Society Addresses Roe v. Wade Reversal



On Friday, June 24, when the Supreme Court reversed Roe v. Wade, thus eliminating a woman's constitutional right to an abortion, the Endocrine Society released the below public statement to its members:

Today the US Supreme Court overturned Roe v. Wade, eliminating the constitutional right to abortion. The Endocrine Society vigorously opposes government interference in medical decisions and policies that restrict access

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We believe that healthcare decisions need to be the purview of patients and their physicians, guided by medical evidence, not politicians.

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to reproductive health care and use of hormonal treatments. We will continue to advocate for protection of access to care, access to contraception, and access to other hormonal treatments for endocrine disease, as well as for support for women's health research, funding for Title X programs, and for medical decisions being determined by a physician and patient, based on medical evidence rather than politics.

In anticipation of this decision, we recently worked with the American College of Obstetricians and Gynecologists on an emergency resolution at the AMA House of Delegates. The resolution, which was passed, focuses on the physician-patient relationship without government interference and on training physicians about reproductive care.

We are concerned that recent restrictions in state laws and actions by courts could have repercussions on our members' ability to treat their patients who seek hormonal care for infertility, PCOS, and other endocrine conditions in accordance with best medical practices. We believe that healthcare decisions need to be the purview of patients and their physicians, guided by medical evidence, not politicians.



Endocrine Society Urges Congress to Pass the INSULIN Act

The Endocrine Society announces its endorsement of the bipartisan insulin bill introduced by Sens. Jeanne Shaheen (D-NH) and Susan Collins (R-ME) that would take steps to reduce out-of-pocket costs of insulin, the escalating price of insulin, and formulary management for people with diabetes.

The INSULIN Act aligns with recommendations in the Society's Insulin Access and Affordability Position Statement, which recommends ways to lower the price of insulin through rebate reform and limiting copays to no more than \$35 per month for insulin.

The bill proposes several ways for the government to improve insulin access and affordability including:

- ▶ Ensuring insurance plans and pharmacy benefit managers cannot collect rebates on insulins that limit list price to the 2021 net prices for Medicare Part D or equivalent levels, which would significantly reduce insulin's soaring price tag for both the insured and the uninsured;
- ▶ Making insulin eligible for cost-sharing protections, including waiving any applicable deductible and limiting copays or coinsurance to no more than \$35 per month, or 25% of list price;
- ▶ Supporting patient access to insulin by ensuring coverage and that prior authorization, step therapy, or other medical management requirements cannot be imposed to limit beneficiary use; and

- ▶ Making sure group and individual health plans waive any deductible and limit cost sharing to no more than \$35 per month or 25% of list price, for at least one insulin of each type and dosage form.

"This bill is about our patients and making insulin affordable for them. The Endocrine Society urges the Senate to pass this bill quickly. People with diabetes who rely on insulin cannot wait any longer. We are very grateful to Senators Shaheen and Collins for their leadership and persistence in identifying a bipartisan solution," says Joshua Joseph, MD, Endocrine Society Clinical Affairs Core Committee chair.

The discovery of insulin occurred over a century ago, however, the price of insulin nearly tripled between 2002 and 2013, and the trend upward has continued over the past decade. This has resulted in some people with diabetes being forced to ration their medication, which has resulted in them becoming sicker and in some cases even dying. Lack of access to affordable insulin will only become more dire the longer Congress waits to act to reduce patient costs. Efforts to address insulin prices have been stalled in the Senate for months.

The House of Representatives passed the Affordable Insulin Now Act in March.

Top 5 Reasons to Attend the Mechanisms of Allostasis Conference!

This September, the Endocrine Society and the Federation of American Societies for Experimental Biology (FASEB) are teaming up to sponsor a new conference focused on the basic science of stress biology and new discoveries about the fundamental mechanisms of allostasis and the generation of allostatic load.

Check out our top five reasons to submit your abstract and attend this exciting new event taking place from September 18 – 22, 2022, in New Orleans, La.:

1. Sessions featuring cutting-edge discoveries

The Mechanisms of Allostasis Conference: Stressed or Stressed Out will feature presentations from 30 expert researchers sharing the latest science on stress and reproduction, the effect of stress on the HPA axis, metabolism and the gut microbiome, and how stress hormones work at the molecular and cellular level to alter physiologic function. We are excited about our lineup of exceptional speakers, and you can already check out the draft program on the dedicated conference website to see who will be talking about their research. We are particularly thrilled to welcome Liisa Galea, PhD, professor and distinguished university scholar at the University of British Columbia, to deliver the keynote lecture on Sunday night.

2. Opportunities for trainees and early-career scientists

The conference organizers have prioritized speaking opportunities for scientists at all career stages. One session in particular will feature presentations from selected abstracts from trainee and early-career researchers. The session is named in honor of Robert J. Handa, PhD, an incredible scientist who made important scientific contributions to our understanding of the role of sex differences in stress biology and was also recognized for his amazing qualities as a mentor.

3. Networking and building collaborations

Conferences are often the perfect venue for networking and seeking out collaborators and mentors for your research. With



this in mind, we are fostering opportunities to network through poster sessions and organized lunches where attendees can meet leaders in the field. We are also opening up our Career Development Workshop library to attendees to allow structured discussions during the lunch networking sessions. You will have plenty of time to identify mentors and collaborators; but don't worry, we've left your evenings free because...

4. It's in New Orleans!

There are few better places to meet with your friends and colleagues than The Big Easy. With the exception of the Sunday dinner and keynote, attendees are free to enjoy the food, music, and nightlife of one of the premier destinations for conference travel. The conference takes place at the Crown Plaza New Orleans French Quarter; the French Quarter is literally right downstairs and out the door!

5. A focus on basic science

The selection of topics and speakers was made with a strong emphasis on research that explores fundamental biological questions in this field. This intentional focus on basic science gives this conference a unique agenda and encourages attendees to explore exciting new questions and discoveries that will shape the future of endocrine research on the fundamental mechanisms that underlie the development of allostatic load.

For more information, go to: <https://www.faseb.org/meetings-and-events/src-events/the-mechanisms-of-allostasis-conference-stressed-or-stressed-out>.

Endocrine Society's Rodneikka Scott Recognized by the ASAE



Rodneikka Scott, MSc, CAE, the Endocrine Society's chief membership and diversity programs officer, has been chosen as one of the American Society of Association Executives (ASAE) Diversity Executive Leadership Program (DELP) scholars for the class of 2022 – 2024.

DELP is a two-year program that supports individuals from underrepresented identity groups to advance into the ranks of leadership in the association management profession. DELP scholars participate in an accelerated leadership program of education, mentoring, and volunteer service in the association community. Scott is one of 12 scholars chosen as part of the 2022 – 2024 class, a two-year program that includes a dynamic learning experience that will prepare the scholars for future leadership roles.

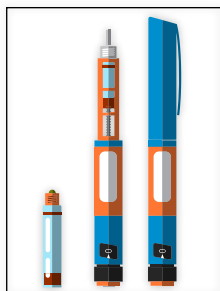
"It's an honor to be named to ASAE's 2022-24 class of DELP Scholars," Scott says. "To be recognized alongside of such respected colleagues, with such an opportunity means so much to me. I'm truly excited about the professional development opportunities the program will afford me, the chance to participate in open dialogue about diversity and what it means for an organization to truly champion, and most importantly, to represent the Society and promote the importance of communicating effectively about diversity commitments. Most of all, I'm motivated to gain knowledge that I could use to give back to the greater association community."

Scott has more than 18 years of diverse experience in the membership, marketing, communications, volunteer relations, and education sectors. Before joining the Endocrine Society in 2019 as the director of member services, she was the senior director of membership and communications for the Association for Information Science and Technology, and a senior manager of membership for the American Academy of Otolaryngology-Head and Neck Surgery and the Association for Government Accountants. She recently earned the 2021 Diversity, Equity, and Inclusion in the Workplace Certificate.

ASAE is a membership organization of more than 44,000 association executives and industry partners. Since it was established 100 years ago, its members have and continue to lead, manage, and work in or partner with organizations in more than a dozen association management disciplines, from executive management to finance to technology. ^{EN}



BY DEREK BAGLEY
Senior Editor



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Insulin is extremely costly and often a barrier to sustained patient utilization, and so having that insight and perspective into why the patient is getting that change, whether it happens at the provider level, or at the pharmacist it's important to understand the reasoning behind it. The idea is that it's more cost effective. It has safety data associated with it, and it's a viable option for patients with diabetes.

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TRENDS & INSIGHTS

New Report Highlights Future of Insulin Biosimilars

Last summer, the U.S. Food and Drug Administration (FDA) approved the first interchangeable biosimilar insulin product, indicated to improve glycemic control in adults and pediatric patients with type 1 diabetes and in adults with type 2 diabetes. The FDA granted approval for insulin glargine-yfgn to Mylan Pharmaceuticals, Inc., which is marketing the product as Semglee.

Semglee (insulin glargine-yfgn) is both biosimilar to and interchangeable with its reference product Lantus (insulin glargine), a long-acting insulin analog. Semglee is the first biosimilar product to get the “interchangeable” designation in the U.S. for the treatment of diabetes. Approval of these insulin products can provide patients with additional safe, high-quality, and potentially cost-effective options for treating diabetes.

While this empowers retail pharmacists to play a key role in influencing biosimilar adoption, a new survey by Cardinal Health found only about 40% of retail pharmacists feel very prepared to discuss biosimilars with patients. In addition, only 20% say they are very familiar with the FDA's interchangeability designation, which enables them to substitute insulin biosimilars in place of reference biologics, indicating a significant need for further education among pharmacists. The results of this survey were published recently in *Biosimilars Report: The U.S. Journey and Path Ahead*.

Currently, there are about 30 FDA-approved biosimilar medications in the U.S. Semglee is the first biosimilar insulin, and the hope is that more will make it to market and drive the cost of insulin down. In the Diabetes Trends section of the biosimilars report, Chevon Rariy, MD, vice president and chair of Virtual Health at Cancer Treatment Centers of America and medical director of endocrinology, writes: “In our survey, most pharmacists were comfortable substituting

a biosimilar for a reference product if it would deliver lower out-of-pocket costs for the patient, but they expressed concern about both the efficacy of biosimilars and a lack of payer adoption in this substitution. While it is true that interchangeable biosimilar insulin products like Semglee could potentially provide cost-effective, safe treatment options for patients with diabetes, providers agreed that payers and pharmacy benefit managers have the most influence in shifting utilization to insulin biosimilars.”

“Insulin is extremely costly and often a barrier to sustained patient utilization,” Rariy tells *Endocrine News*. “And so having that insight and perspective into why the patient is getting that change, whether it happens at the provider level, or at the pharmacist it's important to understand the reasoning behind it. The idea is that it's more cost effective. It has safety data associated with it, and it's a viable option for patients with diabetes. And so certainly I think an education campaign is important.”

Rariy goes on to say she's witnessed insulin rationing in her own practice, even among patients with diabetes who have had a stroke, which was in part related to their poorly controlled diabetes. These patients are discharged from the hospital and given an insulin regimen, which can be an enormous cost that was never in their financial plans.

“I commend the FDA for advancing, and the Endocrine Society for providing that as a top priority to help to see what we can do to reduce the cost of insulin and approving this fast-tracked insulin biosimilar,” Rariy says. “It's still a relatively new process, so I haven't had much experience with feedback from patients on how they are seeing the difference. But I think we just need more data, more research, and making sure that we're following the entire life cycle of the patient now that this is available.”

Levels of AMH Could Predict or Detect Bone Loss in Premenopausal Women

Physicians may be able to determine if menopause-related bone loss is already in progress or about to begin by measuring the level of a hormone that declines as women approach their final menstrual period, according to a study recently published in the *Journal of Bone and Mineral Research*.

The findings could help physicians determine when, and how, to treat bone loss in women as they age before that bone loss causes significant health issues, according to the study. Specifically, the study found that for women 42 years and older who are not yet postmenopausal, levels of anti-Mullerian hormone (AMH) can be used to determine if they are experiencing, or about to experience, bone loss related to their transition into menopause.

The researchers examined data from the Study of Women's Health Across the Nation (SWAN), a multisite, multi-ethnic study examining the

changes women undergo during the transition to menopause. They found that 17% of premenopausal women 42 years or older will have lost a significant fraction of their peak bone mass within two to three years of the date a physician makes the prediction. But among those with less than 50 picograms of AMH per milliliter of blood, nearly double the percentage, 33%, will have lost a significant fraction of peak bone mass in the same time frame. (A picogram is one-trillionth of a gram.)

In addition, 42% of women in early perimenopause will have lost a significant fraction of peak bone mass within two to three years. But among women in early perimenopause with AMH levels below 25 pg/mL, 65% will have lost a significant percentage of peak bone mass in that time.

The study has some limitations, the researchers note. The findings cannot be applied to women who are already taking osteoporosis medications, have undergone a hysterectomy prior to their final period, or have used exogenous sex hormones during the transition to menopause; and the study did not include Hispanic women, nor did it include women who became menopausal before age 42.

"These findings make feasible the designing and testing of midlife interventions to prevent or delay osteoporosis in women," the study's authors write. ^{EN}



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These findings make feasible the designing and testing of midlife interventions to prevent or delay osteoporosis in women.

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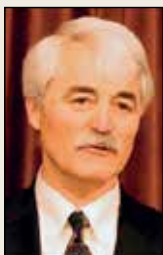
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Physicians have become pawns in the game of those whose primary motivation is money and/or power, and who have little concern for the impact of their behavior on living and non-living things. **Unless we can reverse this trend, and embrace and support diversity, diversity of opinions, and respect for other creatures and the planet, medical (and other) education is destined for extinction, and that would be the least of our worries.”**

— 2021 Outstanding Educator Laureate Award recipient **Ann Danoff, MD**, former chief of medicine at the Philadelphia VA and vice chair of medicine at Perelman School of Medicine, University of Pennsylvania, when asked about the most important issues facing endocrine education today in “Learning Curve: Getting Schooled by Award-Winning Educators” on page 22.

MEMBER SPOTLIGHT Q&A

R. Thomas Zoeller, PhD



R. Thomas Zoeller, PhD, is emeritus professor of biology at the University of Massachusetts, Amherst, and is a visiting professor at the University of Örebro in Sweden. His research has focused on the role of thyroid hormone in brain development with an emphasis on the fetal brain. Zoeller's lab also works on the mechanisms by which environmental endocrine disruptors can interfere with thyroid hormone action in the developing

brain. He was a member of the U.S. EPA's committee to develop a strategy to identify endocrine disrupting chemicals in the 1990s as well as several other EPA and NIH review panels.

What was your first Endocrine Society volunteer role? How do you volunteer now?

Volunteering to me really means to be an active participant in collaboration with other endocrinologists to enhance and enrich your professional life. From this point of view, my first volunteer roles were to present my research work at **ENDO 1986** in Anaheim and beyond. Today, I view my activities within the Society as a way to translate my research and experience to other endocrinologists, and to relevant actors on a global stage.

How did your early Endocrine Society volunteer experience prepare you for committee service?

The more I became involved in Endocrine Society activities, the more rewarding they were and the more interested I was in engaging with others to contribute to the life of the society.

How has volunteer service at the Endocrine Society benefited you personally or professionally?

We can view our professional career from the point of view of our CV or as an expression of our intellectual interest and a commitment to contribute to our world at large. While these are not mutually exclusive perspectives, my involvement with the Endocrine Society has been enormously rewarding personally because it is an important conduit through which my research and intellectual interests can be communicated much more effectively to the broader society.

Read more about your fellow Endocrine Society members at: www.endocrine.org/member-spotlight.

400+

Rare diseases affect approximately 30 million people across Europe, and over 400 of those rare diseases are related to the endocrine system.

— SOURCE: EUROPEAN SOCIETY OF ENDOCRINOLOGY

46%

The percentage of endocrinologists who feel that they are “fairly compensated,” according to the Medscape Physician Compensation Report 2022. The only specialty that ranked lower than endocrinologists was nephrologists at 42%.

— SOURCE: MEDSCAPE PHYSICIAN COMPENSATION REPORT 2022

78%

Women who received hormone replacement therapy after getting COVID-19 had a 78% lower overall mortality rate than women who didn't take estrogen, a study found.

— SOURCE: FAMILY PRACTICE, U.K.

44.6% vs 16.0% A higher proportion of non-Hispanic Black patients experienced diabetic ketoacidosis (DKA) versus White patients in 2019.

48.6% vs 18.6% This trend continued through the pandemic, with an even higher proportion of Black patients versus White patients experiencing DKA. — SOURCE: THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM



2022 Clinical Endocrinology Update/Endocrine Board Review

CEU 2022

CLINICAL ENDOCRINOLOGY UPDATE

Sept. 8 – 10, 2022/ Miami, Fla. & Virtual

The Endocrine Society's Clinical Endocrinology Update (CEU) provides an annual update on the latest diagnosis and treatment recommendations for various endocrine conditions, delivering educational value for clinicians and ensuring optimal patient care worldwide.

Our program is the best way to stay updated on the latest developments in patient diagnosis and treatment in endocrinology. Esteemed faculty from across the globe will present a comprehensive, case-based agenda to help you gain knowledge to improve your practice in an intimate atmosphere where you have direct access to experts in hormone health. Sessions are organized around nine core topics, including diabetes and glucose metabolism, obesity, adrenal and cancer, pituitary and thyroid diseases, bone disorders, and transgender care.

Those interested in meeting in person can join us in Miami, Fla. We will also provide the majority of this year's program online via our virtual meeting platform.

<https://ceu2022.endocrine.org/Home>



EBR 2022

ENDOCRINE BOARD REVIEW

Sept. 16 – 18, 2022/Virtual Only

Endocrine Board Review (EBR) is an essential course for endocrinologists preparing to take the boards or practicing physicians seeking an intensive knowledge assessment. The virtual program is designed as a mock exam, with rapid-fire case-based questions emulating the format and subject matter of the ABIM's Endocrinology, Diabetes, and Metabolism Certification Examination. Attendees will have early access to topical on-demand presentations with detailed answer rationale (available in late August).

<https://www.endocrine.org/ebr2022>



The Phospholipids Conference: Dynamic Lipid Signaling in Health and Disease

Jupiter, Florida

July 31 – August 4, 2022

Launched in 1988, this FASEB Science Research Conference (SRC) is one of the longest-running lipid research meetings. This year's SRC explores all aspects of the biology and biochemistry associated with lipid signaling, lipid metabolism, lipid-protein interactions, and lipids in health and disease. A special workshop will highlight lipids in aging. This conference brings together leading investigators in lipid metabolism and signaling and helps train the next generation of U.S. investigators to bring new advances to lipid and aging discovery.

<https://www.faseb.org/>

ADCES22

Baltimore, Maryland

August 12 – 15, 2022

The Association of Diabetes Care & Education Specialists (ADCES) Annual Conference is the premier diabetes care and educational event of the year. More than 3,000 diabetes care and education specialists and other healthcare professionals are expected to participate at ADCES22 in Baltimore, Md. Connect, collaborate, and educate yourself and others on the latest in diabetes care and education in person for the first time in two years!

<https://www.diabeteseducator.org/home>

The Mechanisms of Allostasis Conference: Stressed or Stressed Out

New Orleans, Louisiana

September 18 – 22, 2022

Jointly hosted by FASEB and the Endocrine Society, this FASEB Science Research Conference will feature presentations from expert researchers sharing the latest results on stress and reproduction; the integration of the hypothalamic–pituitary–adrenal axis with metabolism and the gut microbiome; and how stress hormones work at the molecular and cellular level to alter physiologic function. The conference's target audience includes investigators at various career stages, trainees, and junior scientists who are experts in the fields of stress biology, neuroendocrinology, and related disciplines.

<https://www.faseb.org/meetings-and-events/>

INTERNATIONAL ITINERARY

10th International Congress of Neuroendocrinology (ICN2022)

Glasgow, Scotland

August 7 – 10, 2022

ICN2022 is sponsored by the International Neuroendocrine Federation (INF) and is combined with the annual meeting of the following societies: the British Society for Neuroendocrinology (BSN), the French Society of Neuroendocrinology (SNE), the Hypothalamic Neuroscience and Neuroendocrinology Australasia (HNNA), and the Pan-American Neuroendocrine Society (PANS). The aim for ICN2022 is to have a fully inclusive congress that will promote networking and interaction among all members of the international neuroendocrine community.

<https://icn2022.org/>

6th International Symposium on Pheochromocytoma

Prague, Czech Republic

October 19 – 22, 2022

Leading international experts in basic, clinical, and translational pheochromocytoma research will present their latest discoveries, guidelines, clinical trials results, collaborative efforts, and future visions for studying this tumor. Four plenary sessions will focus on the latest discoveries and perspectives in genetics and epigenetics, biochemistry and metabologenomics, theranostics, and mitochondrial function. The symposium will have several sessions devoted to patient management, including unique case presentations and in-person discussions with expert physicians on their approach to the workup, diagnosis, and treatment of patients with this tumor. All healthcare professionals, scientists, students, patients, and allies are welcome to attend this symposium, which will undoubtedly outline new focuses and avenues for early diagnosis, treatment, and ultimately prevention of pheochromocytoma.

<http://www.isp2022prague.com/>

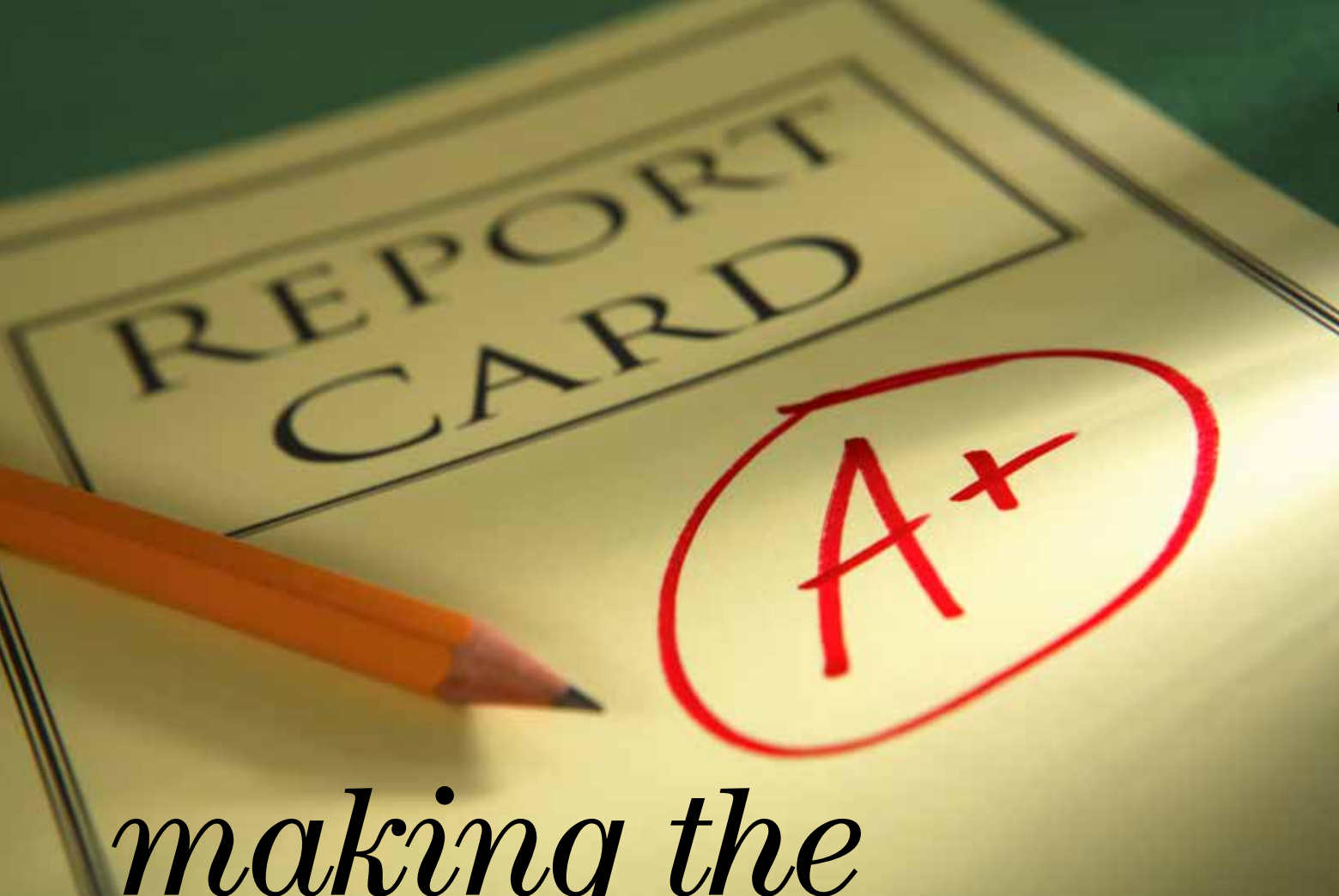
EndoBridge 2022

Antalya, Turkey

October 20 – 23, 2022

EndoBridge® is a unique initiative with the vision of bridging the world of endocrinology. The annual meeting of EndoBridge is co-hosted by the Endocrine Society and the European Society of Endocrinology in collaboration with the Society of Endocrinology and Metabolism of Turkey. EndoBridge will be held in English with simultaneous translation into Russian, Arabic, and Turkish. Accredited by the European Accreditation Council for Continuing Medical Education (EACCME), this three-day scientific program includes state-of-the-art lectures delivered by world-renowned faculty and interactive sessions covering all aspects of endocrinology. EndoBridge® provides a great opportunity for physicians and scientists from around the world to interact with each other, share their experience and perspectives, and participate in discussions with global leaders of endocrinology.

www.endobridge.org



making the

GRADE

The Endocrine Society's Clinical Practice Guidelines are among the most trusted recommendations in the field of endocrinology and are relied upon by thousands of clinicians each year. However, new standards using the GRADE methodology prioritize evidence over expert opinion; minimize conflicts of interest; and, for the first time ever, engage a wider number of stakeholders, including patients.

**Endocrine
Society
Clinical Practice
Guidelines
Get a Refresh**

BY KELLY HORVATH

“ One major change in this new process is that every question is underpinned by a systematic review. **An independent team has created this transparent and reproducible process to select the studies, so the studies are not cherry-picked.**”

— M. HASSAN MURAD, MD, METHODOLOGIST, MAYO EVIDENCE-BASED PRACTICE CENTER, ROCHESTER, MINN.; MEMBER, GRADE WORKING GROUP

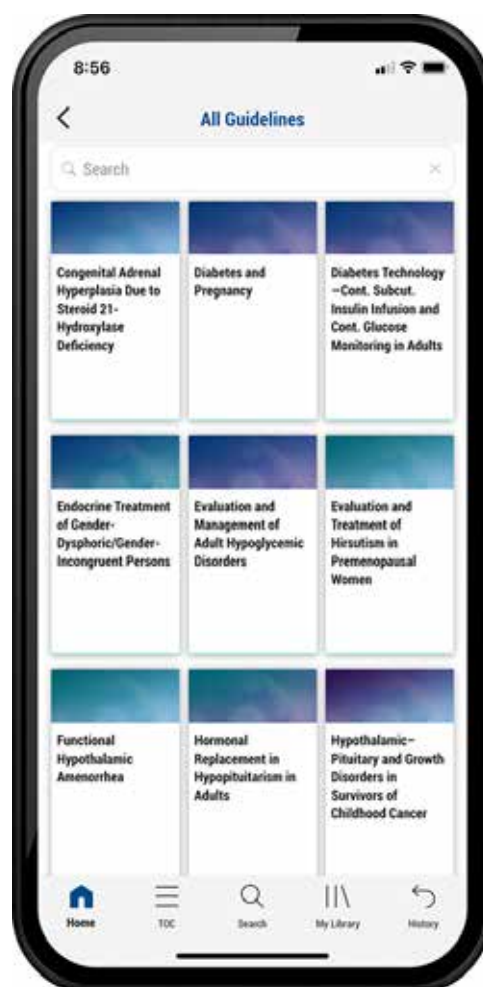
As one of its many trusted and important endeavors, the Endocrine Society publishes Clinical Practice Guidelines (CPGs) — much appreciated and heavily relied on by clinicians and their patients — that synthesize the available evidence on a given clinical problem and help guide the approach to most optimally treating it in various situations and accounting for various patient-important factors. Especially when a clinical question does not have a clear answer, busy clinicians do not have time to navigate the copious information out there to identify the best way forward with an individual patient.

Instead, they can turn to the recommendations from a panel of experts who have come together to review related studies carefully and thoroughly and then provide direction for the most important unanswered clinical questions related to a given disorder. CPGs improve patient care.

As with anything, however, for CPGs to work as intended, they need a system of quality control. Historically, guideline development in general was not necessarily very transparent. In the early 2000s, an international group of methodologists and epidemiologists recognized this lack of transparency and resulting lack of standardization and collaborated on finding a solution. That solution was the GRADE methodology: Grading of Recommendations, Assessment, Development, and Evaluation.

Soon after, the Endocrine Society adopted the GRADE methodology, but, say the authors of “Enhancing the Trustworthiness of Endocrine Society Clinical

The Endocrine Society’s Clinical Practice Guidelines are easily available via an app.





Members of the Endocrine Society's Clinical Guidelines Committee met at ENDO 2022 in Atlanta (and virtually) last month. Pictured on screen are Yumie Rhee, MD, PhD; Sabrina Gill, MD, MPH; Rita Kalyani, MD; and Sasigarn Bowden, MD. In the forefront are Diana Varghese, MD; Avin Pothuloori, MD; Rodolfo Rey, MD, PhD; Ana Luiza Maia, MD, PhD; Marie McDonnell, MD; Tamara Wexler, MD, PhD; Deborah Merke, MS, MD; John Newell-Price, MD, PhD; and Tobias Else, MD.

“ We’re able to show our work in a way now that we weren’t able to before, and that speaks to the transparency of the process, which we think is really important. **GRADE is probably the most widely accepted standard for guideline development, and the GRADE Working Group continues to refine that methodology.**”

— CHRISTOPHER R. MCCARTNEY, MD,
PROFESSOR OF ENDOCRINOLOGY, DIVISION OF ENDOCRINOLOGY AND METABOLISM,
UNIVERSITY OF VIRGINIA SCHOOL OF MEDICINE, CHARLOTTESVILLE, VA.

Practice Guidelines,” adherence was not as meticulous as it might have been. Publishing last month in *The Journal of Clinical Endocrinology and Metabolism (JCEM)*, “Endocrine Society Guideline Trustworthiness” explains how GRADE was more rigorously applied to the Society’s newest CPGs and consequently how they will be different, including the latest CPG, “Management of Hyperglycemia in Hospitalized Patients in Non-Critical Care Settings: An Endocrine Society Clinical Practice Guideline,” which was published online last month and will be published in the August print issue of JCEM (see page 28).

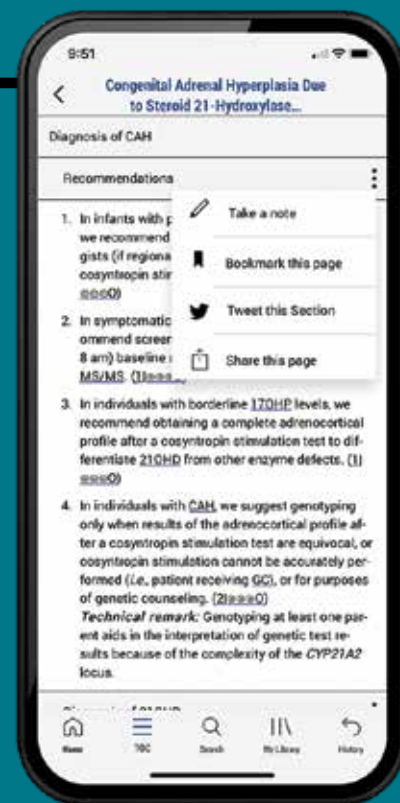
Says corresponding author Christopher R. McCartney, MD, professor of endocrinology and metabolism, at the University of Virginia School of Medicine in Charlottesville, “we timed the article to coincide with the publication of the new guideline largely because readers are going to see some differences. We thought it would be important to communicate those changes and to explain their rationale.”

Key Changes and Potential Tradeoffs

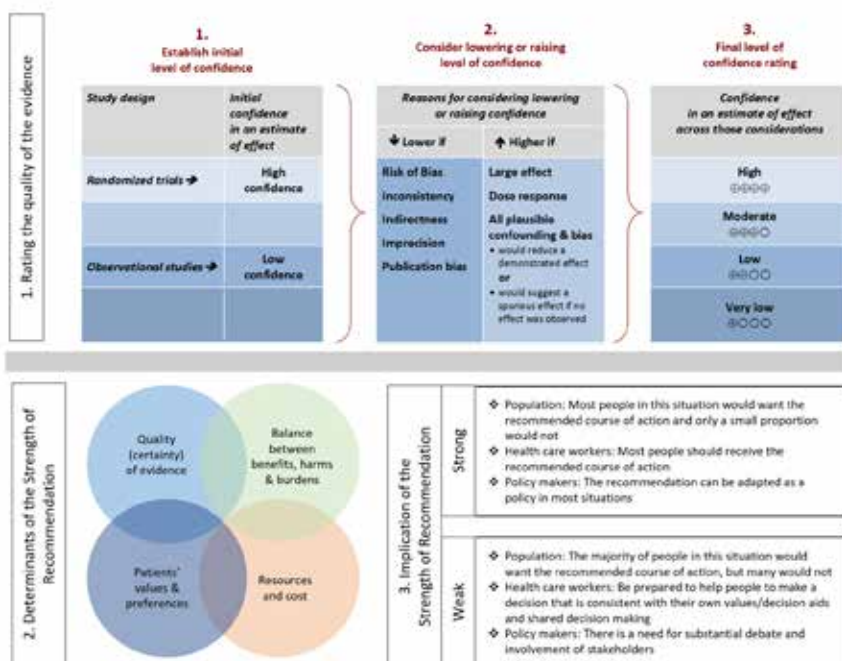
The new and future CPGs will reflect important differences in four key areas: systematic evidence review, conflict of

interest avoidance, decision-making transparency, and patient engagement. Co-author M. Hassan Murad, MD, methodologist at the Mayo Evidence-based Practice Center in Rochester, Minn., and member of the GRADE Working Group, explains: “One major change in this new process is that every question is underpinned by a systematic review. An independent team has created this transparent and reproducible process to select the studies, so the studies are not cherry-picked. Another is that the conflict-of-interest policy is now very explicit and transparent, and most people on the guideline panels do not have ties with industry or with certain products. A third is that the process of reaching a decision is much more transparent and follows the GRADE framework insofar as quantifying all factors, including benefits and harms. Finally, the engagement of patients and caregivers in the decision-making process is critical.”

These enhancements are hallmarks of a high-quality, trustworthy guideline, but they do come with potential tradeoffs, says McCartney, who became a member of the Clinical Guidelines Committee in 2016 and chaired it from 2018 to 2021. For example, rigorous methodology versus comprehensiveness: Many of the Society’s previous CPGs included high numbers of recommendations for many facets of a particular problem, presenting a comprehensive view of the issue. But performing transparent, rigorous systematic reviews on such high numbers of clinical questions is not feasible, so the number of clinical questions addressed is now necessarily restricted. “What that means is that our guidelines will generally have fewer recommendations than the readership may be used to. What we charge our



AT A GLANCE



This infographic illustrates the process by which the GRADE methodology is used when creating a clinical treatment guideline that adheres to the standards from the National Academy of Medicine. Source: U.S. GRADE Network

- ▶ With publication of “Endocrine Society Guideline Trustworthiness,” in JCEM this month, Endocrine Society CPGs will more faithfully adhere to guideline creation standards set forth by the National Academy of Medicine and to the GRADE methodology.
- ▶ New CPGs will prioritize evidence over expert opinion, explicitly justify recommendations on that basis of numerous factors, minimize conflicts of interest, and better engage all stakeholders, including patients.
- ▶ The first Endocrine Society CPG to have undergone the new process is “Management of Hyperglycemia in Hospitalized Patients in Non-Critical Care Settings,” published online last month in JCEM.

“

There was still a tendency for the experts to want to elucidate all of the reasons why we might choose one approach or another, **but, in the end, evidence had to drive every single sentence in that guideline, and if it didn't, we couldn't write it.**”

— MARIE E. MCDONNELL, MD, DIRECTOR, DIABETES PROGRAM,
BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MASS.;
CHAIR, ENDOCRINE SOCIETY'S CLINICAL GUIDELINES COMMITTEE

panels to do is to prioritize and address the most important areas where people need guidance,” he says.

The avoidance of conflicts of interest also presents a trade-off insofar as many well-known experts have relationships with industry (e.g., acting as consultants, conducting industry-funded research, serving on advisory boards, etc.), but such relationships increase the risk for bias or, at the very least, may present an appearance of bias. “There may be a number of very well-known experts who weren't selected for a guideline panel in part because of our trying to minimize conflicts of interest. Broadly speaking our approach has been to achieve credibility and trustworthiness not so much on having the most well-recognized experts but instead on the basis of our methodological rigor,” McCartney says.

Another difference readers will notice relates to how evidence is presented. New and future CPGs will prioritize presenting the composite evidence rather than individual studies. “Prior guidelines would read almost like a review,” explains McCartney. “But we've really stressed that panels should present high-level descriptions of the evidence and focus on the best estimates for the effects of a given intervention, in addition to how confident the panel is about those estimates.” (It should be noted that information from the individual studies will be available in the systematic reviews, so this is less of a trade-off than a best-of-both-worlds approach.)

Putting It to the Test

Making the move toward depending on evidence over expert opinion by implementing GRADE assures that CPGs are consistent with standards set by the Institute of Medicine (now the National Academy of Medicine), explains Murad, who has worked on Endocrine Society CPGs for 15 years, including the aforementioned “Management of Hyperglycemia in Hospitalized Patients in Non-Critical Care Settings.” “This endeavor by the Endocrine Society is futuristic; they are leading the charge,” he says.

Executing such a sea change in faithful implementation of GRADE required keeping track of a lot of moving parts, according to McCartney: “This was a broad Societal effort, involving the governance of the Society, the Clinical Guideline Committee members, and all the panel members on the hyperglycemia and other soon-to-be-published guidelines.” Co-author Marie E. McDonnell, MD, of Brigham and Women's

GRADE

The Endocrine Society is just one of more than 110 organizations from around the world that have adopted the GRADE methodology.

For more information on the GRADE methodology, events, publications, and international networks, or to sign up for the GRADE newsletter, go to:

<https://www.gradeworkinggroup.org/>.

Hospital, in Boston, Mass., and current chair of the Clinical Guidelines Committee, was involved from the beginning. “I was part of the committee at that time discussing using different approaches, and GRADE certainly stood out as the premier approach to guideline development. It takes into account formal evidence synthesis and how clinicians make decisions about choosing a therapy and puts them together in an organized framework for the members of a guideline development panel,” she says.

McDonnell explains that prior guidelines not having had as intensive meta-analysis as will happen going forward is not ideal but is not what prompted the CPG overhaul. “The main driver was really the National Institute of Health, the Agency for Healthcare Research and Quality, and other organizations saying every guideline should be faithfully adhering to GRADE to ensure that it is trustworthy.” The committee also had an inside track to understanding GRADE in the Mayo Clinic methodology group led by Murad. “He has been a proponent of GRADE and understood it on such a deep level that transitioning to full-GRADE compliance was not as difficult for us as it might have been otherwise,” McDonnell says.

McDonnell, as current Clinical Guidelines Committee chair, has the distinction of not only holding that position during the release of the first GRADE-vetted guidelines put out by the Endocrine Society but also as one of the subject matter experts on the guideline itself. “It’s hard to learn a new methodology,

especially when you’re learning and teaching at the same time. That tension was minimized by the expertise of [Murad] and also [McCartney], who had formal GRADE training at that point,” she says. “There was still a tendency for the experts to want to elucidate all of the reasons why we might choose one approach or another, but, in the end, evidence had to drive every single sentence in that guideline, and if it didn’t, we couldn’t write it.”

McDonnell says they also had to learn a new vocabulary as part of applying the GRADE methodology, such as the “evidence to decision (EtD)” framework. They have not only gotten the hang of the new approach, lingo and all, but they also figured out some ways to make future implementations more streamlined. “Mary Korytkowski and Ranganath Muniyappa, chair and co-chair, respectively, of the inpatient hyperglycemia guideline, were really instrumental in giving us feedback relating to communication, assigning roles, making sure people don’t overlap tasks, and what to expect from the different players — the GRADE methodologists and the Endocrine Society staff.” McDonnell credits McCartney with ensuring that methodologists were also endocrinologists to bring efficiency to the process.

Report Card

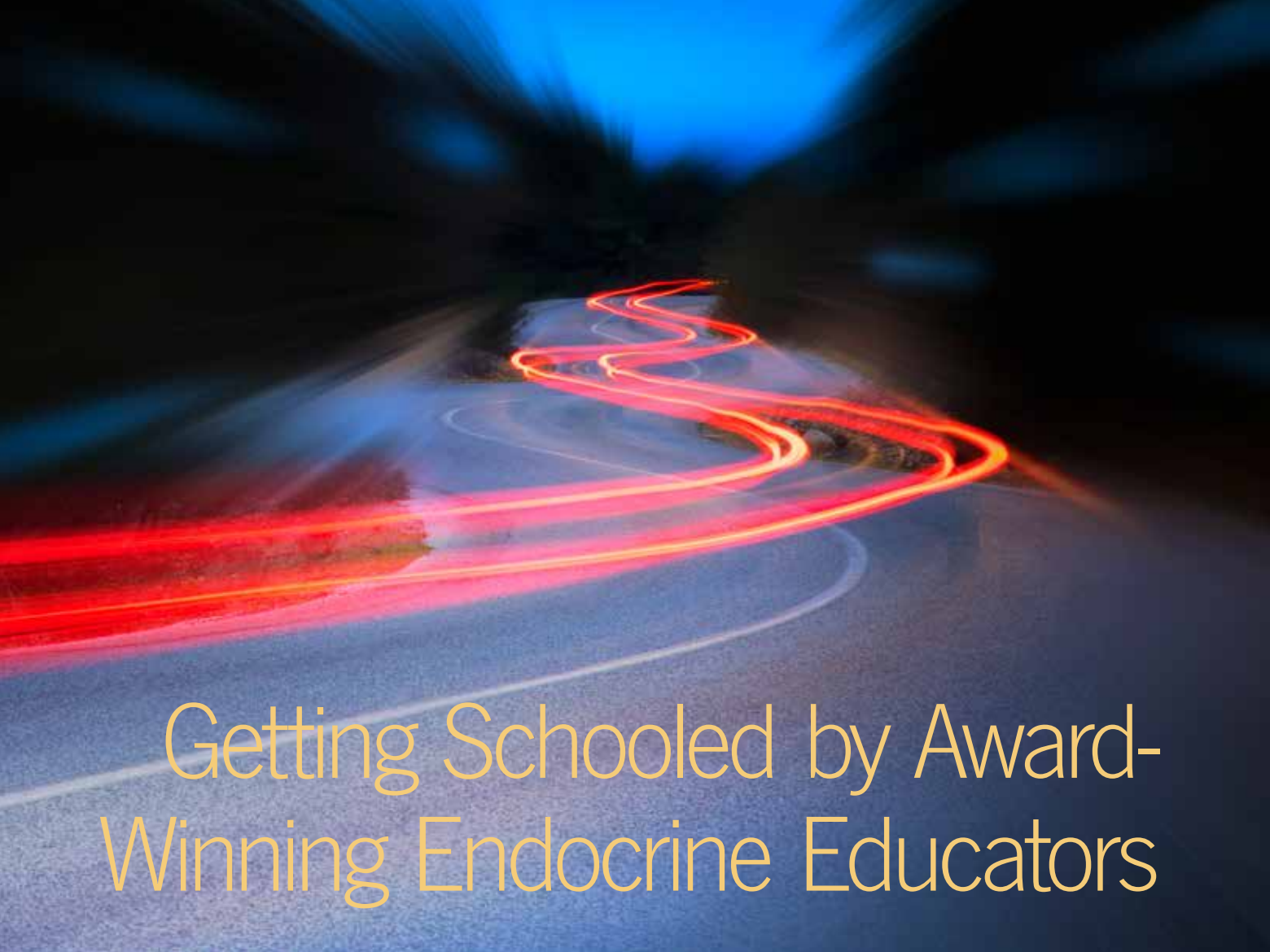
It’s straight A’s for this team and for “Endocrine Society Guideline Trustworthiness” in successfully providing guidance for guideline panels to more faithfully implement all the new policy changes and the components of GRADE. “We’re able to show our work in a way now that we weren’t able to before, and that speaks to the transparency of the process, which we think is really important,” McCartney says. “GRADE is probably the most widely accepted standard for guideline development, and the GRADE Working Group continues to refine that methodology.”

The team has much to celebrate and be proud of. They have created a system that will help clinicians help patients. They worked very hard to do so. “I’m excited for it to get out there,” McCartney says. “Pulling this paper together caused me to reflect on how much work has gone into this on the part of a lot of people. I think we can all be proud of the progress we’ve made.” ^{EN}

— HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD., AND A FREQUENT CONTRIBUTOR TO *ENDOCRINE NEWS*. IN THE JUNE ISSUE, SHE WROTE ABOUT SIX SEPARATE OBESITY STUDIES FROM ENDOCRINE SOCIETY JOURNALS IN TWO SEPARATE FEATURES, “TIPPING THE SCALES: NONINVASIVE OBESITY BREAKTHROUGHS” AND “MIDDLE MANAGEMENT: EVALUATING NEW INSIGHTS TO OBESITY AND WEIGHT CONTROL OPTIONS.”

learning curve

Endocrine News reached out to a few of the Endocrine Society's Outstanding Educator Laureates to share insights into the state of endocrine education. Ann Danoff, MD; Kenneth Burman, MD; Laurence Katznelson, MD; and Carolyn Becker, MD, discuss the past, present, and future of educating endocrinologists, the best advice they've ever received, and how they motivate their own students.



Getting Schooled by Award-Winning Endocrine Educators

They help chart the course for the future of endocrinology. As educators of today's young physicians and researchers who have chosen the endocrine specialty, these teachers pass along the wisdom their vast experience has afforded as they help shape both the minds and gumption of tomorrow's leaders in the field.

Endocrine News asked four past recipients of the Endocrine Society's Outstanding Educator Laureate Award to share their opinions about the state of endocrine education. With a combined 125 years spent as educators, these four honorees have witnessed everything from how technology and computers have shifted patient care to how the specialty still struggles with the diversity of endocrine providers.

Joining the roundtable are: **Ann Danoff, MD**, former chief of medicine at the Philadelphia VA and vice chair of medicine at Perelman School of Medicine, University of Pennsylvania (2021 Laureate); **Kenneth Burman, MD**, Endocrine Fellowship program director; Joint Medstar Georgetown/Medstar Washington Hospital Center Program, professor, Department of Medicine, Georgetown University (2019 Laureate); **Laurence Katznelson, MD**, professor of medicine and neurosurgery, associate dean of Graduate Medical Education, Stanford University School of Medicine (2017 Laureate); and **Carolyn Becker, MD**, Marshall A. Wolf Distinguished Clinician Educator, Division

“



I was trained in the era when there were almost no computers, charts were made of paper, and checking a fingerstick glucose took 20 minutes and a device the size of a shoebox. On the other hand, there was a proximity to the patient that was very precious and invaluable.”

— **CAROLYN BECKER, MD**, MARSHALL A. WOLF DISTINGUISHED CLINICIAN EDUCATOR, DIVISION OF ENDOCRINOLOGY, DIABETES, AND HYPERTENSION, BRIGHAM AND WOMEN'S HOSPITAL; ASSOCIATE PROFESSOR OF MEDICINE, HARVARD MEDICAL SCHOOL, BOSTON, MA.

of Endocrinology, Diabetes, and Hypertension, Brigham and Women's Hospital associate professor of medicine, Harvard Medical School (2018 Laureate).

Endocrine News: What are the most important issues facing endocrine education right now?

Ann Danoff: The most important issues currently facing endocrine education overlap with those facing medicine and society more generally. Misinformation, disinformation, lies, and absence of common human decency are rampant in our culture. It is my impression that we are witnessing deterioration of the moral fabric of society. Physicians have become pawns in the game of those whose primary motivation is money and/or power, and who have little concern for the impact of their behavior on living and non-living things. Unless we can reverse this trend, and embrace and support diversity, diversity of opinions, and respect for other creatures and the planet, medical (and other) education is destined for extinction, and that would be the least of our worries.

Kenneth Burman: There is not sufficient time to perform well in the areas of clinical, research, teaching, and administration.

Carolyn Becker: A key issue facing endocrine education right now is the need for greater racial and gender diversity, equity, and inclusion at all levels. For much of its history, endocrinology was practiced and led by White men. We now have much greater representation of women in endocrine practice and research but not at the highest levels of our academic institutions. Many racial minorities are severely underrepresented within endocrine practice and research, particularly Black and Hispanic people. Endocrinologists with Asian backgrounds are not well represented in leadership

roles. All of this is relevant to endocrine education as we need to attract the most talented and diverse people to our field and to do so requires visible and meaningful representation of all underrepresented groups as clinicians, researchers, and academic leaders.

Laurence Katznelson: Assuring more global education, particularly in areas with more limited access to experienced educators. Access to research venues to promote critical thinking and knowledge advancement. And assimilation of advancements in imaging and medical breakthroughs into trainee and clinician education.

EN: How has endocrine education changed since your days as a post-doc or undergrad?

Danoff: The most obvious change is the introduction of the internet and the associated access to vast amounts of information with the click of a button, and the option of remote and hybrid learning/teaching (and electronic charting). In addition, the learning environment seems more structured, with more policies that direct what constitutes an appropriate learning environment. The curriculum is more standardized, and “accountability” of learners and teachers by local and national organizations seems more prominent. There are rules regarding duty hours that did not exist when I trained, much more talk about work-life balance, and much more emphasis on topics related to career advancement. Because of increasing time constraints on clinician-educators, there is less time for “bedside learning” and less time for learners to have apprenticeship-type relationships with teachers/mentors.

One thing that has not changed enough is that women, people of color, and sexual minorities are still grossly underrepresented in teaching/

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The best aspects of endocrinology include the various types of disease we encounter, the ability to measure hormones quantitatively to make a diagnosis, and the ability to rationally treat patients. Also, the long-term relationships we develop with patients are very satisfying.”

— **KENNETH BURMAN, MD**, ENDOCRINE FELLOWSHIP PROGRAM DIRECTOR; JOINT MEDSTAR GEORGETOWN/MEDSTAR WASHINGTON HOSPITAL CENTER PROGRAM, PROFESSOR, DEPARTMENT OF MEDICINE, GEORGETOWN UNIVERSITY, WASHINGTON, D.C.

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— ANN DANOFF, MD, FORMER CHIEF OF MEDICINE AT THE PHILADELPHIA VA AND VICE CHAIR OF MEDICINE AT PERELMAN SCHOOL OF MEDICINE, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA.

mentoring/leadership positions and so are not available as role models.

Burman: There is less time spent examining and discussing patients with the attending physician and fellow.

Becker: I was trained in the era when there were almost no computers, charts were made of paper, and checking a fingerstick glucose took 20 minutes and a device the size of a shoebox. On the other hand, there was a proximity to the patient that was very precious and invaluable. We focused on careful histories and physical exams, we looked at our own thyroid needle aspirations, and we reviewed our own radiographs and scans. We spent less time charting, documenting, and billing, and more time with our patients. Once computers were introduced into exam rooms, the educational experience changed dramatically. Some of this is for the better, some of it is much worse. But it is certainly different.

Katznelson: There has been an exponential growth of opportunities in telemedicine to advance education. This is one of the positive outcomes of the pandemic and has led to exciting new opportunities in more global education.

EN: What is some of the best advice you were ever given as a student by one of your mentors?

Danoff: One of my teachers was a beautiful dancer named Vera Nemtchinova. When asked how she managed to execute 64 fouetté turns in *Swan Lake* (most brilliant dancers max out at 32), with her broken English accent, she replied “one more, one more, one more.” That teaching helped me get through more than one rough spot.

A few bits of non-verbal advice: Other dancers/choreographers (Kenneth King, Jimmy Waring, Merce Cunningham) taught by example the

importance of having a strong foundation and being able to improvise in response to which way the wind was blowing. My Tai Chi teachers taught me to keep my feet rooted firmly in the ground and my head suspended from heaven.

Burman: Be industrious. Be a team player. Take excellent, compassionate care of patients. Never compromise your integrity.

Becker: The patient comes first but never miss a meal.

EN: What would you say to today's students to motivate them in the field of endocrinology?

Danoff: I cannot express how deeply I have loved my life in endocrinology and how lucky I feel that I found my way into the field. Endocrinology offers a window into the most magnificent choreography imaginable. If you are drawn in, just do it.

Burman: The best aspects of endocrinology include the various types of disease we encounter, the ability to measure hormones quantitatively to make a diagnosis, and the ability to rationally treat patients. Also, the long-term relationships we develop with patients are very satisfying.

Becker: Get involved in the Endocrine Society to be inspired, educated, connected, and make friends to last for a lifetime.

Katznelson: For students drawn by the intersection of biochemistry, disease, and research, endocrinology offers the ability to combine all of these scholarly opportunities into an exciting career. **EN**



“

For students drawn by the intersection of biochemistry, disease, and research, endocrinology offers the ability to combine all of these scholarly opportunities into an exciting career.”

— **LAURENCE KATZNELSON, MD**, PROFESSOR OF MEDICINE AND NEUROSURGERY, ASSOCIATE DEAN OF GRADUATE MEDICAL EDUCATION, STANFORD UNIVERSITY SCHOOL OF MEDICINE, STANFORD, CALIF.

BY ERIC SEABORG

Control Issues

With new technology and new drugs changing diabetes treatment at an unprecedented pace, the Endocrine Society's "Management of Hyperglycemia in Hospitalized Adult Patients in Non-Critical Care Settings: An Endocrine Society Guideline" looks through the latest evidence on glycemic control for the most comprehensive guidance on selecting the optimal approach in hospitalized patients.

Continuous glucose monitor devices for tracking blood sugar levels are now suggested for hospital use.
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THE LATEST ENDOCRINE SOCIETY GUIDELINE TACKLES HYPERGLYCEMIA IN HOSPITALIZED PATIENTS



Activation and reading of sensor for continuous glucose monitoring (CGM).
Copyright (c) 2021 Dragoljub Bankovic/Shutterstock.

he practice of medicine changes quickly, and the treatment of diabetes has changed dramatically with the advent of innovative technology like continuous glucose monitors and insulin pumps as well as new pharmacological approaches. In the 10 years since the Endocrine Society published its previous clinical guideline on the management of hyperglycemia in hospitalized patients in non-critical care settings, clinical experience and studies have amassed at a fast pace.

“Many of the recommendations in the earlier guideline were based on consensus of panel members without systematic reviews,” says Mary T. Korytkowski, MD, professor of medicine at the University of Pittsburgh Medical Center and chair of the committee that recently published an update of the hyperglycemia guideline. “There was a lot of mixed-messaging about how to care for these patients — including what their glycemic goals should be and how to best go about achieving those goals.”

So, the guideline committee members had their work cut out for them in wading through the recent literature. The task was so large that they took a novel approach — rather than trying to cover all the ground of the previous

guideline, the update poses 10 key clinical questions and uses the best available evidence to answer them.

Monitors and Pumps

One of the areas foremost on the minds of the committee members was the dramatic changes wrought by advances in the technology of diabetes management with the widespread use of continuous glucose monitors and insulin pumps in the outpatient setting. The use of continuous glucose monitoring (CGM) in hospitals received a big boost early in the COVID-19 pandemic when the Food and Drug Administration (FDA) gave permission (but not approval) to use the devices in hospitalized patients. “This guidance from the FDA opened the door to use these technologies in the inpatient setting as many hospitals adopted their use as one way of minimizing the amount of direct contact healthcare personnel had with COVID-19 patients early in the pandemic when supplies of personal protective equipment were not always sufficient,” Korytkowski says.

The success that many hospitals experienced in implementing CGM led to the guideline suggestion that hospitals should consider using real-time CGM with point-of-care blood glucose tests in adults with insulin-treated diabetes who are at high risk of

“Many of the recommendations in the earlier guideline were based on consensus of panel members without systematic reviews. There was a lot of mixed-messaging about how to care for these patients — including what their glycemic goals should be and how to best go about achieving those goals.”

— MARY T. KORYTKOWSKI, MD, PROFESSOR OF MEDICINE,
UNIVERSITY OF PITTSBURGH MEDICAL CENTER, PITTSBURGH, PA.

hypoglycemia where adequate resources and training are available. Hospitals that lack these resources can continue using point-of-care blood glucose monitoring.

Guideline committee co-chair Ranganath Muniyappa, MD, PhD, hopes that the FDA will recognize this success and formally approve the use of CGM “in hospitalized patients with diabetes who are at high risk for hypoglycemia with guidance and consideration for safe implementation of these devices.” Muniyappa is a senior research physician at the National Institute of Diabetes and Digestive and Kidney Diseases.

As to another popular diabetes technology, the guideline suggests that patients who were using insulin pumps prior to their admission be allowed to continue using these devices provided they have the physical and mental capacity to do so rather than being changed to subcutaneous insulin therapy.

Importance of Education

Korytkowski says that the guideline also answers a question about the effectiveness of diabetes education in hospitalized patients. She notes that although education on diabetes self-management is often viewed as an outpatient issue, many patients never receive it. The evidence shows that “providing patients with education before they are discharged from the hospital reduces their risk for hospital readmissions and improves their glycemic control at three and six months following hospital discharge.”



AT A GLANCE

- ▶ Recent experience has shown that devices such as continuous glucose monitors can facilitate effective goal-directed glycemic management in hospitalized patients.
- ▶ Hospitalizations offer an opportunity to provide diabetes self-management education that can improve glucose management following discharge and reduce the risk of readmission.
- ▶ The question of when to choose between correctional insulin used alone or in combination with scheduled insulin requires an individualized approach, and a new Endocrine Society guideline provides guidance on selecting the optimal approach in hospitalized patients.

Decisions on Therapies

Hospital caregivers need to be aware that commonly used therapies such as glucocorticoids or enteral nutrition can exacerbate hyperglycemia in patients with established diabetes or cause hyperglycemia in patients with no prior history of diabetes, Korytkowski says, so the guideline includes several recommendations for these situations and reviews therapies that may be most appropriate.

For example, in patients receiving glucocorticoids, the guideline suggests glycemic management using either neutral protamine Hagedorn (NPH)-based insulin or basal-bolus insulin (BBI) regimens. Hospitalized patients receiving enteral nutrition frequently experience hyperglycemia, and the committee's literature review suggested that either NPH-based or BBI regimens would be appropriate for these patients.

The guideline also suggests that insulin therapy be used for glycemic management instead of non-insulin therapies for most patients with diabetes or hyperglycemia.

Correctional Insulin

Another area that has been a subject of controversy in recent years is the role of correctional insulin — usually a short- or rapid-acting insulin — used alone versus scheduled insulin to maintain glucose targets in hospitalized patients. “The guideline identifies patients for whom correctional insulin used alone might be a reasonable approach and patients for whom this would not a reasonable approach,” Korytkowski says.

For example, the guideline suggests that correctional insulin be used as the initial therapy in patients with no prior history of diabetes who experience hyperglycemia or those with type 2 diabetes treated with non-insulin therapy prior to admission to maintain blood glucose levels between 100–180 mg/dL (5.6–10.0 mmol/L). Scheduled insulin therapy is recommended when blood glucose values consistently exceed 180 mg/dl (10 mmol/L).



For patients with insulin-treated diabetes prior to admission, the guideline recommends continuing their scheduled insulin regimen, while modifying it for their nutritional status and illness severity.


Another complex area the guideline tackles is the use of carbohydrate counting for calculating prandial insulin dosing. For patients with type 1 diabetes or insulin-treated type 2 diabetes, the guideline suggests use of either carbohydrate counting or fixed prandial insulin dosing. The guideline suggests against carbohydrate counting in patients with type 2 diabetes receiving non-insulin therapies or who are receiving insulin therapy only when hospitalized.

Elective Surgery

Although it does not concern patients already admitted to hospitals, Korytkowski says the guideline committee considered it important to review the literature examining glycemic measures prior to elective surgery and postoperative outcomes in patients with diabetes because of the great variability among surgeons on this issue: “Some surgeons will operate independent of a patient's level of glycemic control. Other surgeons will recommend a hemoglobin A1c that may not be realistic for some patients before they will operate.”

“We found that being under reasonably good glucose control — that is, an HbA1c of less than 8% — before an elective surgical procedure reduces the risk for surgical complications,” Korytkowski says. For patients who can or cannot achieve this HbA1c level, a preoperative blood glucose < 180 mg/dl (10 mmol/L) in the time immediately preceding elective surgery is suggested to reduce risk postoperative complications.

Another guideline suggestion for patients with diabetes preparing for surgical procedures is that they not be given carbohydrate-containing oral fluids preoperatively to avoid any exacerbation of hyperglycemia.

“Management of Hyperglycemia in Hospitalized Adult Patients in Non-Critical Care Settings: An Endocrine Society Guideline” was published online on June 13 and will appear in the August 2022 print edition of *The Journal of Clinical Endocrinology & Metabolism*. It was co-sponsored by the American Association of Clinical Endocrinologists, American Diabetes Association, Association of Diabetes Care and Education Specialists, Diabetes Technology Society, and European Society of Endocrinology. 

— SEABORG IS A FREELANCE WRITER BASED IN CHARLOTTESVILLE, VA. IN THE MAY ISSUE, HE PROVIDED AN **ENDO 2022** PREVIEW OF THE SESSION “ENDOCRINE DEBATE: LOW RISK THYROID CANCER.”



The Patient's Perspective

In keeping with a growing trend in medicine to empower patients, the Endocrine Society has adopted a policy to include a patient on its guideline-writing committees. The clinical guideline on managing hyperglycemia in hospitalized patients was the first to include such a patient participant.

The patient participant was Claire Pegg, who has been living with type 1 diabetes since her diagnosis in 1997 at age 24. She has been active for many years in the Diabetes Patient Advocacy Coalition, which is how she came to the Endocrine Society's attention. She said she jumped at the opportunity to "be directly involved in the guidelines that affect a lot of us directly."

Committee chair Mary T. Korytkowski says that including Pegg "worked very well. She was excellent at providing insights into what is beneficial, what is reasonable, and what patients are looking for when they come into the hospital."

Pegg tells *Endocrine News* that she felt welcomed as an equal participant: "They couldn't have been more willing to accept a patient perspective when I had it to offer."

She realized that she was not as conversant in the medical literature as the physician members of the committee but felt that all the members recognized the importance of her perspective and were eager to hear what she had to say.

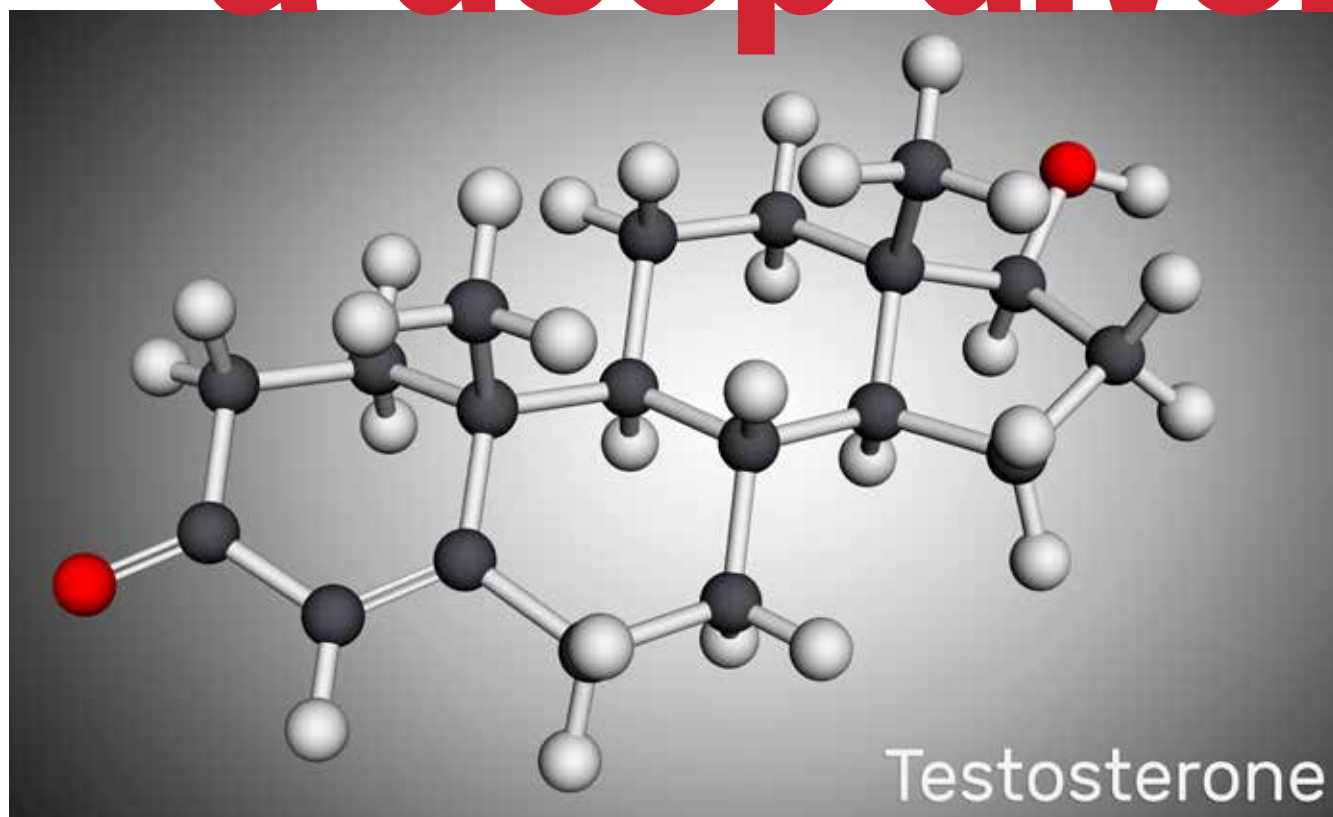
"It was fascinating to see how much work and how much science goes into preparing these guidelines," Pegg says. "We decided as a group which questions were the most important to answer, and everyone worked on finding studies that would support or not support different ways of doing things."

One example of a patient experience she explained was that although hospitals are understandably focused on avoiding the dangers of hypoglycemia, for patients, the feeling of hyperglycemia is "miserable."

She also encouraged the committee members to not be too judgmental about patients' ability to maintain their glucose in an ideal range. She commonly advocates for patients "not as privileged" as she is, who may not have the time, education, and resources to focus on keeping their glucose levels in line: "All the work is done by the patient. This is something I do 24 hours a day. For many people who are unable to stay in range, it is because they don't have the tools they need. They may need education. They may need a continuous glucose monitor. It is rare that people are able to get what they need."

— E.S.

a deep dive:



The Indications, Contraindications, and Maybes When Prescribing Testosterone Replacement Therapy

BY KELLY HORVATH



Arthi Thirumalai, MBBS

Endocrine Society Clinical Endocrinology Update 2022 is a hybrid meeting for the first time and will offer attendees a variety of refresher courses on the latest diagnosis and treatment recommendations for various endocrine conditions. *Endocrine News* talks with Arthi Thirumalai, MBBS, about her two sessions that detail treating low testosterone in men, risk factors, controversies, and comorbidities.

This year's Endocrine Society's always highly anticipated Clinical Endocrinology Update (CEU) symposium takes place on a hybrid basis (live, in Miami, Fla., and online) from Thursday, September 8 through Saturday, September 10. At CEU 2022, leading experts will present new findings and how these translate to the point of care.

Endocrine News once again provides an advance peek into select presentations. In the topic area of Male Reproduction, Arthi Thirumalai, MBBS, section head of Endocrinology at Harborview Medical Center, and endocrinologist at the UW Medicine Diabetes Institute and the Lipid Clinic at South Lake Union, and a University of Washington assistant professor of medicine and metabolism, endocrinology, and nutrition in Seattle, Wash., will present two talks, both on the many questions surrounding testosterone replacement therapy in patients with comorbid conditions, especially diabetes, as low testosterone is associated with insulin resistance. These talks are certainly topical — the prevalence of hypogonadism among males with diabetes is reported to be 25% – 30% and can predispose males to adverse cardiometabolic outcomes.

According to the Endocrine Society's Facts & Figures on Reproduction and Development, "Symptoms of androgen deficiency may include decreased energy, mood, muscle mass and strength, erectile function, bone density, and libido. Erectile dysfunction, low libido, and lack of morning erections are the symptoms that are most specific for male hypogonadism."

Trick or Treatment?

For the first talk, "Cardiometabolic Disorders and Low Testosterone in Men: Cases Studies of When to Treat," she will be exploring what the literature says about testosterone in the context of cardiometabolic disorders. For patients with diabetes, obesity, or metabolic syndrome, for example, is there any evidence to support checking testosterone levels in these patients or treating low testosterone levels that may or may not be consistent with hypogonadism? And how do testosterone levels affect these patients? "Many physicians will check testosterone levels in everybody with diabetes and everybody with obesity or a fatty liver, and the question then really is, is it a cause



“ Is treating low testosterone beneficial, harmful, or neutral? That’s where I would like to go with this talk, because there are trials of treating people with diabetes with testosterone and treating people with cardiometabolic disease with testosterone; does that help . . . or not?”

— ARTHI THIRUMALAI, MBBS, SECTION HEAD, ENDOCRINOLOGY, HARBORVIEW MEDICAL CENTER; ENDOCRINOLOGIST, UW MEDICINE DIABETES INSTITUTE AND THE LIPID CLINIC AT SOUTH LAKE UNION; ASSISTANT PROFESSOR OF MEDICINE AND METABOLISM, ENDOCRINOLOGY, AND NUTRITION, UNIVERSITY OF WASHINGTON, SEATTLE, WASH.

or effect — is it an association or is it a cause of that disorder?” she explains.

This presentation will start off with a review of the epidemiology of low testosterone in patients with cardiometabolic disorders. How testosterone levels affect these patients often depends on the severity of their condition. But the question remains, is a low testosterone value contributing to their symptoms and worsening their chronic illness? On the other hand, perhaps the patient has multiple factors contributing to a low level, such as medication, and the low serum testosterone is associated with those factors. In either case, would raising that level by treating with testosterone replacement therapy actually affect the disease itself? “Is treating low testosterone beneficial, harmful, or neutral?” asks Thirumalai. “That’s where I would like to go with this talk, because there are trials of treating people with diabetes with testosterone and treating people with cardiometabolic disease with testosterone; does that help . . . or not?”

Thirumalai will be discussing approaches to actual patient cases: “Do you go hunting for low testosterone? Do you wait for symptoms? What symptoms would clue you in to treating versus not treating?” For example, she explains, some physicians might say that a patient with chronic diabetes who also has osteoporosis should be checked and treated even though he does not have the traditional symptoms of low libido

or decrease in energy levels. Then, too, most patients with diabetes have erectile dysfunction — is that symptom sufficient to warrant testing for low testosterone?

Attend “Cardiometabolic Disorders and Low Testosterone in Men: Cases Studies of When to Treat” from 1:25 p.m. to 2:10 p.m. on Thursday, September 8 to learn how Thirumalai will address these and related clinical questions.

Extenuating Circumstances

“Difficult Cases in Male Hypogonadism: Treatment of Patients with CV Disease, Prostate Cancer, DVT Risk Factors and DM2 Risk Factors” takes place right on the heels of her first presentation, this one from 2:35 p.m. to 3:05 p.m. on Thursday, September 8. Whereas in the previous talk, hypogonadism was not always established, in this talk, Thirumalai will discuss the cases of patients with confirmed hypogonadism but in whom treatment with potential testosterone replacement therapy is complicated by issues such as acute cardiovascular disease, prostate cancer (or history of prostate cancer), or thromboembolic disease (or at high risk for thromboembolic disease).

“These are patients who would be diagnosed categorically with hypogonadism,” she explains, “but because these are known either black box warnings for testosterone prescription or classical areas of debate in the testosterone world as to whether testosterone therapy is dangerous in these patients or not, I would like to review a case of each one of these and go through what we have in the literature about what are the risks and benefits of testosterone replacement therapy in these scenarios.”

The solutions she is hoping to find there regarding testosterone replacement therapy basically amount to whether there is a safe way to pursue it — are there certain parameters that should be given to clinicians. “This is the situation in which you could consider testosterone replacement therapy versus this is a scenario in which you are probably better off waiting,” she continues. For example, testosterone’s black box warning concerns its potential to increase the risk for venous thromboembolism/deep vein thrombosis (DVT). In a patient who has already had DVT, do you prescribe testosterone to that patient or not? Or, if someone has a known genetic mutation like factor V Leiden, which predisposes them to DVTs, would you prescribe testosterone therapy? Then, with prostate cancer, although current guidelines say that patients with active prostate cancer should not get testosterone replacement therapy, what about patients who recently had prostate cancer and are currently in remission? “The guidelines are vague

CEU2022

CLINICAL ENDOCRINOLOGY UPDATE

Cardiometabolic Disorders and Low Testosterone in Men: Cases Studies of When to Treat

Thursday, September 8, 1:25 p.m. – 2:10 p.m.
Sandringham Intercontinental Hotel

This program will consist of discussions about several case studies that address common controversies in the treatment of male hypogonadism.

Learning Objectives:

- ▶ Know the evidence about the risks of testosterone therapy in men with recent myocardial infarction or stroke;
- ▶ Know the appropriate evaluation and monitoring for hypogonadal men with a history of localized prostate cancer in remission and who are considering initiation or continuation of testosterone therapy; and
- ▶ Apply the evidence about the effects of testosterone therapy on incident risk of diabetes to the clinical decision making about testosterone therapy in men at high risk of diabetes.

Difficult Cases in Male Hypogonadism: Treatment of Patients with CV Disease, Prostate Cancer, DVT Risk Factors and DM2 Risk Factors

Thursday, September 8, 2:35 p.m. – 3:05 p.m.
Grand Ballroom - Versailles Intercontinental Hotel

This Master Clinician session will review the evidence for the possible association between endogenous testosterone and testosterone therapy with cardiovascular outcomes including venous thromboembolic disease (DVT), prostate cancer, and type 2 diabetes.

Learning Objectives:

- ▶ Understand the evidence for testosterone therapy and the risk of major cardiovascular events in men;
- ▶ Know the most up-to-evidence about the effects of testosterone therapy on the prevention and treatment of type 2 diabetes; and
- ▶ Know the data about the possible association between testosterone and venous thromboembolic disease in men.

For more information: <https://ceu2022.endocrine.org/Home>



It's important for not just endocrinologists, but also primary care physicians to be aware of all of these aspects of testosterone replacement therapy. **There's a lot of inappropriate prescribing that happens through clinics that are not run by physicians or by regulated facilities, probably stemming from the fact that if physicians do not feel comfortable having these conversations with their patients, then the patients might then go and seek care in other alternative practices. It's upon us to be educated about these things so we can have those conversations with our patients."**


— ARTHI THIRUMALAI, MBBS, SECTION HEAD, ENDOCRINOLOGY, HARBORVIEW MEDICAL CENTER; ENDOCRINOLOGIST, UW MEDICINE DIABETES INSTITUTE AND THE LIPID CLINIC AT SOUTH LAKE UNION; ASSISTANT PROFESSOR OF MEDICINE AND METABOLISM, ENDOCRINOLOGY, AND NUTRITION, UNIVERSITY OF WASHINGTON, SEATTLE, WASH.

on that one," she says, "and it's more expert opinion than randomized clinical trial data."

Similarly with cardiovascular disease, there is a long-standing debate over whether testosterone therapy predisposes to increased risk for atherosclerotic events or not. "That data has always been very murky, but increasingly the consensus is going toward that it probably does not cause atherosclerotic events, but, at the same time, what do you do if someone who is on testosterone therapy has a myocardial infarction — do you stop therapy temporarily? Do you restart it later? What do you do if somebody is diagnosed with hypogonadism in the immediate aftermath of a cardiac event — is it okay to do therapy at that time, or do you need to wait? These are the sort of questions I would like to review," she says.

In addition to the quality-of-life (QOL) reductions that unequivocally low total and free testosterone levels cause, Thirumalai explains that low serum testosterone can also cause anemia, osteoporosis, and other problems as well as worsening existing problems. "There is good literature to support that not treating with testosterone replacement therapy will make a lot of things worse. Bone health will continue to decline, predisposing to osteoporotic fractures, as does oxygen-carrying capacity. We also know that low testosterone increases insulin resistance, so not treating can predispose these patients to developing diabetes later in life."

The QOL reductions (like mood changes and energy depletion) themselves can precipitate serious depression. "So, the point really is not, is testosterone therapy beneficial to them?" Thirumalai continues. "The question is, are there certain conditions in which a more detailed risk/benefit discussion needs to be had in those men."

With testosterone therapy getting so much attention currently, being so widely prescribed and even more widely discussed, Thirumalai's reviews are critical. "It's important for not just endocrinologists, but also primary care physicians to be aware of all of these aspects of testosterone replacement therapy. There's a lot of inappropriate prescribing that happens through clinics that are not run by physicians or by regulated facilities, probably stemming from the fact that if physicians do not feel comfortable having these conversations with their patients, then the patients might then go and seek care in other alternative practices. It's upon us to be educated about these things so we can have those conversations with our patients." 

— HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. IN THE JUNE ISSUE, SHE WROTE ABOUT NEW NONINVASIVE OBESITY TREATMENTS.



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Pipette Dreams

Every lab needs its cell samples to be as accurate as possible, and automated pipetting processes can help ensure maximum accuracy and repeatability when transferring fluids.

COMPILED AND WRITTEN BY COURTNEY CARSON

Pipettes are a vital part of the endocrine lab — just like fume hoods and microscopes — but one pipette does not fit all. French chemist and microbiologist Louis Pasteur is widely credited with inventing the first pipettes in the 1840s to prevent contamination and simplify the liquid transfer process. These “Pasteur pipettes” were the precursor to what we know today as simple eye droppers. The first micropipette was patented in 1957 by Dr. Heinrich Schnitger before Dr. Heinrich Netheler, founder of Eppendorf, inherited the rights and started the commercial production of micropipettes in 1961. Fast-forward to present-day pipetting, and labs are relying on robotic devices and automated processes to monitor experiments and integrate the data.

While pipettes can be one of the lab’s biggest costs, the investment is worth making to ensure the proper tools are in place. Without the correct pipettes, labs are more likely to make mistakes that can lead to costly errors — errors that can reach in the hundreds of thousands of dollars. If your budget allows, considering an automated liquid pipette handling system may be worth the investment.

Here, we look at some of the tools created to improve the consistency of cell-based applications.



▲ Eppendorf epMotion 5070

The epMotion 5070’s pipetting technology is based on the classic Eppendorf piston-stroke pipettes; thus, protocols previously carried out manually are easily transferred to the liquid handling robot. Its compatibility to a wide range of predefined consumables also allows established procedures to be maintained. Before every run, the optical sensor checks that the required labware is correctly positioned on the deck, and it also checks tip type and quantity available. This sensor even checks liquid volumes in vessels for safe operation. Eight different dispensing tools based on Eppendorf’s classic air cushion pipetting technology are available, and the epMotion workstation can automatically change the tools connected to its robotic arm.

www.eppendorf.com



◀ **Thermo Scientific™ E1-ClipTip™ Electronic Multichannel Pipette**

With enhanced versatility and customization, the Thermo Scientific™ E1-ClipTip™ Electronic Multichannel Pipette automates daily 96- and 384-well microplate pipetting tasks with the updated security of ClipTip™ interlocking tip interface technology to ensure the tip is locked and sealed in place until ejected. The new My Pipette™ Creator is a web-based pipetting app powered by Thermo Fisher Cloud that enables programming of E1-ClipTip via a PC. The E1-ClipTip pipette connects to the app via Bluetooth or USB connection and offers pre-programmed protocols, to download and share, for many of reagent kits and pipetting protocols.

www.fishersci.com

▶ **Andrew Alliance Pipette+**

The Andrew Alliance Bluetooth pipettes are manufactured by Sartorius, the inventor of electronic pipettes. Pipette+ comprises smart electronic pipettes connected via bluetooth to a charging stand, and a full computer inside the charging stand connected with OneLab, a software solution that allows scientists to design and execute laboratory protocols. At each protocol step during experiment execution, Pipette+ processes the OneLab instructions, setting the required parameters on the pipettes to be used and removing the need of manipulating the pipettes settings.

Single and multichannel pipettes are automatically identified by the stand when the user deposits the pipettes on its slots, and they are charged, monitored, paired, and registered transparently without the user even being aware of it. Andrew Alliance won the New Product Award for Pipette+ at the Society for Laboratory Automation and Screening Trade Show.

www.andrewalliance.com



▶ **INTEGRA ASSIST PLUS & VOYAGER**

INTEGRA Biosciences offers a range of liquid handling solutions designed to improve the reproducibility and throughput of human leukocyte antigen (HLA) typing workflows. The ASSIST PLUS pipetting robot, combined with the VOYAGER adjustable tip spacing pipette, provides flexibility to labs carrying out HLA typing, whether using serological or sequence-based methods. The ASSIST PLUS pipetting robot means that low volumes are pipetted with higher accuracy and precision compared to a manual workflow, which is particularly important in situations where samples can be small and precious. By combining the ASSIST PLUS with the VOYAGER adjustable tip spacing pipette, users are not restricted by labware type, providing the option to switch between different processes and applications as the lab's workflow demands. Users can even work across a wide volume range, simply by switching between VOYAGER pipettes. This makes the ASSIST PLUS a versatile tool for diagnostics labs and transfusion and transplant centers wishing to enhance their HLA typing capabilities.

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Endocrine Society delegates Amanda Bell, MD, (left) and Palak Choksi, MD, advocated for several of the Society's key policy priorities at the AMA House of Delegates in June.

Society Advances Key Priorities at AMA Annual Meeting

In June, the American Medical Association (AMA) House of Delegates met to establish policy positions on topics of importance to healthcare providers and patients. Endocrine Society delegates Amanda Bell, MD, and Palak Choksi, MD, successfully advocated for several of our key policy priorities, including insulin affordability, obesity, women's health, climate change, and transgender care.

The Society, which has two voting members in the "House of Medicine," co-sponsored a resolution to address the nationwide obesity epidemic. The resolution on obesity would create

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The Endocrine Society is opposed to government interference in medical decisions and policies that take away access to reproductive healthcare and use of hormonal treatments.

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an obesity task force to evaluate and disseminate relevant scientific evidence to healthcare clinicians, other providers, and the public. One particular area the task force would address is the lack of insurance coverage for evidence-based obesity treatments. The Endocrine Society has advocated for expanded access to obesity treatments and supports the Treat



Amanda Bell, MD, speaks to the AMA House of Delegates on a number of topics including insulin affordability, obesity, women's health, climate change, and transgender care.

and Reduce Obesity Act that would allow Medicare to cover FDA-approved anti-obesity medications. This resolution was referred to the AMA Board of Trustees for further action.

The Endocrine Society also co-sponsored a resolution supporting an insulin copay cap for insured patients. The resolution, which was adopted by the House of Delegates, added language to existing AMA insulin affordability policy in support of state and national efforts to limit the out-of-pocket costs incurred by insured patients for prescribed insulin. The Society supports a \$35 insulin copay cap for people on Medicare and private insurance.

Another key focus at the meeting was protecting reproductive rights and access to transgender care. We supported a resolution passed by the "House of Medicine" recognizing that it is a violation of human rights when government intrudes

into medicine and impedes access to safe, evidence-based reproductive health services. This resolution was passed in response to the increasing threat of government intrusion of the patient-provider relationship related to reproductive health.

The Endocrine Society is opposed to government interference in medical decisions and policies that take away access to reproductive healthcare and use of hormonal treatments. The Society also worked to advance a resolution to protect the rights of gender diverse populations. This resolution supports shared decision making between gender diverse individuals, their families, their primary care physician, and a multidisciplinary team of physicians and other healthcare professionals including endocrinologists.

Finally, we worked to pass a resolution declaring climate change a public health crisis that threatens the health and well-being of all individuals. This resolution ensures that the AMA will advocate for policies that reduce greenhouse gas emissions and support clean energy solutions. The Society has made climate change a key priority area. We have worked to educate the public about the health effects of global warming and have supported increased research on the impact of climate change on the endocrine system.

The AMA House of Delegates, which is the legislative and policy-making body of the AMA, meets twice a year to consider changes to AMA policy. This year's annual meeting took place on the same weekend as **ENDO 2022**. A very special thanks to our delegates, Bell and Choksi, for attending the AMA meeting and representing the Society.

EPA Incorporates Endocrine Society Recommendations in PFAS Water Health Advisories



On June 15, the U.S. Environmental Protection Agency (EPA) issued drinking water health advisories for four per- and polyfluoroalkyl substances (PFAS) including PFOS, PFOA, GenX, and PFBS and incorporated Endocrine Society recommendations on low-dose impact by acknowledging that there is no safe level for certain PFAS, and health effects may occur below the current EPA detection limit.

The health advisories were announced as an update to the original 2016 advisories and consider more recent scientific evidence, including effects on development, reproduction, cancer, and immune systems. The new advisories for GenX and PFBS also consider sensitive effects on thyroid hormone levels. While these advisories provide states and territories with some advice on limiting exposure, the EPA is also planning on developing a PFAS National Drinking Water Regulation to be announced this coming fall. This regulation may consider additional PFAS and include a grouping approach to prevent regrettable substitutions.

The Endocrine Society looks forward to the drinking water regulation and will work with the EPA to ensure that hazardous exposures to these endocrine-disrupting chemicals are minimized.

Learn About Endocrine Society Advocacy and How You Can Participate

The Endocrine Society is advocating for you. Visit www.endocrine.org/advocacy/accomplishments-and-champions to learn about our recent advocacy victories and the Society members who made them happen!

Here are some ways you can make your voice heard:

- ▶ Participate in our online advocacy campaigns at endocrine.org/takeaction;
- ▶ Visit endocrine.org/advocacy for ways to make your voice heard; and/or
- ▶ Contact advocacy@endocrine.org to sign up for weekly advocacy updates and opportunities to participate in advocacy activities.





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