What You Need to Know

The importance of taking time to get to know your patients, the role robots can play in healthcare, digging deep for new antibiotics, anesthesia goes green, and more!

Learning Patients

A well-known quote made popular by Dr. William Osler goes, “A good physician treats the disease, the great physician treats the patient who has the disease.” But how often does a doctor take the time to really talk with a patient—and listen? Do they even know the names of the patient’s family members who are supporting them in their illness?

Dr. Mikkael Sekeres, director of the Leukemia Program at Cleveland Clinic Cancer Center, shares the story of a med student who trained with him and his team “to get better at giving bad news to patients.” Like Mr. Miyagi’s unusual instructions to Daniel-san which indirectly taught him the basics of karate, Dr. Sekeres told this student to discover a fact about each patient’s personal life simply from observing the conversations doctors had with them in their hospital rooms.

The ultimate lesson: it’s important to find out more about the patients and their families, what their goals are, and what they expected from their treatment. This allows physicians to not only make a human connection, but also identify potential nonmedical challenges, such as whether a patient has an adequate support system to follow discharge instructions.
Behavioral Health — Walgreens Partners Up for Mental Health

Walgreens, one of the largest retail pharmacy chains in the nation, is partnering with the American Pharmacists Association (APhA) and the National Council of Behavioral Health (NCBH) to train its more than 27,000 pharmacists to recognize the warning signs of mental health and substance use disorders in patients and help them through crisis situations. The program provides pharmacists with a four-hour online Mental Health First Aid course and allows them to earn continuing education credits from APhA; the course eventually will be made available to all company employees, as well as industrywide. Walgreens human resources staff will also participate in an eight-hour, in-person training course in managing mental health and substance use disorders among their co-workers.

Long-Term Care — Healthcare Transformers: Carebots Are More Than Meets the AI

Alexa and Siri, make way for Sayabot and Stevie. Who or what are Sayabot and Stevie? They’re a new breed of artificial intelligence: “caregiving robots” who are offering a human touch of kindness and companionship to lonely, elderly patients. Carebots like them have already been embraced in Japan, helping to meet the needs of a growing population of the elderly as the workforce to care for them is decreasing.

You may have encountered robotic assistants at your local grocery store, where they keep track of inventory and watch out for messes, but what can a vaguely humanoid machine bring to a long-term care facility? Potentially, quite a lot. For example, Sayabot, developed by Indian company Asimov Robotics, can help patients use the restroom, talk and play games, and dispense medicine—and, of course, provide round-the-clock monitoring and summon their human counterparts in the event of a medical emergency. Sayabot can also learn from its interactions with patients, so it can decide on the best way to remind them to take their medicine.

Similarly, Stevie, developed by the Innovation and Robotics Lab at Trinity College Dublin, is designed to socialize with patients and stimulate them through conversation and games, and provide an interactive interface for controlling lights and the TV, and making phone calls. Currently being piloted in the United States and Ireland, Stevie has received generally positive feedback from focus groups. Conor McGinn, head of the robotics lab that created Stevie, says there’s no need to worry about machines replacing people. Stevie supplements human interactions that are already taking place between patients and their human caregivers—especially where those interactions are not taking place when facilities are understaffed and those caregivers are stressed and busy.
Infection Prevention — Fighting Dirty: How Irish Soil May Help Stop Superbugs

The soil of the Boho Highlands in Fermanagh, Northern Ireland, formerly the stomping grounds of the Druids, is legendary. Locals wrapped samples of it in cotton cloth to treat toothaches and throat and neck infections. Desperate to identify fresh antibiotics to fight antibiotic-resistant superbugs, a team of Welsh ethnopharmacologists—scientists who study folk medicines—put this “magic soil” under their microscope and found its fabled healing properties are more than mere superstition.

Specifically, they unearthed a previously unknown strain of bacteria, *Streptomyces sp. myrophorea*, which inhibits the growth of four of the top six superbugs that the World Health Organization attributes to healthcare-associated infections, including methicillin-resistant *Staphylococcus aureus* (MRSA). It’s also effective against gram-positive and gram-negative bacteria, the latter of which are more resistant to antibiotics. This literally groundbreaking discovery could provide a powerful new tool against superbugs. The team from Swansea University Medical School in Swansea, Wales, is now working to purify and identify the antibiotic components of the strain and continue studying other antibacterial organisms present in the soil.

Surgery — Global Warning: Anesthesia’s Unexpected Impact on Climate Change

Anesthesiologist Brian Chesebro is a man on a mission. Like a real-world version of Dr. Seuss’ environmentally conscious Lorax, he’s been working to convince his colleagues and hospitals— anyone who will listen—that a simple change in the anesthesia they use during surgery can save not only a little money, but also, possibly, help save the world. He isn’t just blowing hot air: He’s done his research, and as he shares the data he’s collected on the carbon footprint of sevoflurane gas vs. desflurane gas, his fellow anesthesiologists are starting to listen.

Medically, sevoflurane and desflurane are effectively interchangeable; however, desflurane is 20 times more powerful than sevoflurane at trapping heat in the planet’s atmosphere, where it lasts for 14 years, while sevoflurane breaks down in just one year. He likens desflurane’s greenhouse impact to driving 12 humvees during surgery, compared to only half a hummvee—sevoflurane. Unless there’s a specific medical need, there’s no reason not to switch to sevoflurane exclusively, and when Providence Health hospitals in Oregon followed Chesebro’s recommendation, they began saving about $500,000 annually.

Other hospitals around the country also have been switching to sevoflurane, or have tried to, with mixed success. But as anesthesiologists typically select the gas they want to use for a procedure, in many cases it becomes another personal choice, just like picking the car they drive and all the other choices that make up our lifetime carbon footprints.
**Diagnostic Excellence — Too Much Skin in the Game?**

It seems natural to expect that screening people for melanoma to detect the skin cancer early would be a good thing, but surprisingly some dermatologists think this practice may be causing more harm than good. While diagnoses of melanoma have been increasing, the number of deaths from melanoma haven’t dropped accordingly—perhaps suggesting that vigilant screening of people without symptoms or a history of skin cancer is leading to overdiagnosis and unnecessary treatments. In fact, the United States Preventive Task Force reports that as of yet there is no evidence that screening helps save lives, but there is the potential for harm from misdiagnosis, overdiagnosis, biopsies, and overtreatment that may include surgery and medication—as well as the associated costs of all those tests and treatments for the patient.

Another contributing factor to misdiagnosis: advances in skin scanning technology that is too good at detecting changes before doctors are able to determine whether an early growth is malignant or benign. Thus, a benign lesion or mole may be treated as a malignant tumor. Still, many dermatologists insist that early detection is essential—a matter of life or death—and it’s better to err on the side of caution.

With other dermatologists also arguing for watchful waiting, two things are clear: This is a contentious debate that isn’t likely to be settled any time soon, and both groups of dermatologists can at least agree that prevention is still the best protection against skin cancer, particularly for individuals at greater risk because of their physical traits or personal or family history of cancer.

**Medication Safety — Make Room for Shrooms**

Psychedelic mushrooms—those containing psilocybin—may move off controlled substances lists and join cannabis in legalization for medicinal use around the nation, if advocates in states like Colorado, Oregon, and Iowa have their way. But the first step in Denver was a ballot measure to loosens laws around possession and use of psilocybin mushrooms, which passed by a narrow margin on May 7, making them the “lowest law enforcement priority.”

Unlike other illegal drugs, research suggests that psilocybin is nonaddictive and contributes to fewer ED visits, while offering numerous medical benefits, including long-lasting treatment of anxiety and depression and curbing nicotine addiction. But that doesn’t mean it should be used without professional supervision; potentially dangerous side effects like panic attacks and unsafe behavior, the so-called “bad trip,” has caused some deaths.

Nonetheless, Dr. Matthew Johnson, associate professor of Psychiatry and Behavioral Sciences at Johns Hopkins University, thinks that within the next five years, psilocybin research will yield the first medication approved by the Federal Drug Administration, and the door will be wide open to its future as a groundbreaking treatment for depression.
We want to hear how your team is revolutionizing telemetry monitoring! Submit a brief description (up to 300 words) to patientsafetyauthority@pa.gov by May 31, 2019. We’ll share your stories so others can learn from your success.

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On May 2, we held our annual Pennsylvania Patient Safety Summit (P2S2) in Seven Springs, PA, with more than 300 attendees. It was a terrific, informative, and fun event that began with opening remarks from Executive Director Regina Hoffman and a celebration and awards presentation for our 2019 I AM Patient Safety winners. From posters to packed breakout sessions, throughout the day participants were introduced to original research, programs, initiatives, and collaboratives that are advancing patient safety in healthcare facilities around the state. In the afternoon, keynote speaker John Kruk, three-time MLB All-Star and former first baseman for the Philadelphia Phillies, regaled a rapt audience with lively tales from his baseball career, as well as his more sobering experiences battling testicular cancer and navigating the healthcare system. Please visit our Facebook page and Twitter for updates from P2S2 (hashtag: #StepUp2ThePlate), and view the photo gallery.

Save the date for next year’s P2S2: April 28, 2020, in Lancaster, PA!