

THE WEEK'S TOP STORIES

GILLETTE COLLABORATING TO IMPROVE TREATMENT FOR CHILDREN WITH CHRONIC PAIN

Gillette Children's Specialty Healthcare is working with Holland Bloorview Kids Rehabilitation Center in Toronto to implement a chronic pain assessment toolbox developed specifically for patients with cerebral palsy.

"There aren't many institutions that specialize in the type of complex care that we provide at Gillette," said Chantel Barney, PhD, a clinical scientist and knowledge translation specialist at Gillette who discovered the approach when researching additional methods of assessing chronic pain. "Holland Bloorview has a patient population that is quite similar to our own, and they had developed a chronic pain assessment toolbox geared specifically towards individuals who have cerebral palsy. It looked quite promising, so I called them. That's how it started, but several months and many phone calls later, we received a grant to have Holland Bloorview help us in the implementation of the toolbox at Gillette."

Because assessing pain is subjective, the toolbox was developed to allow medical providers to identify and track pain in a more quantifiable way. It contains 15 detailed surveys that patients can fill out with their families to provide a comprehensive overview of how pain is affecting their daily lives. Providers use the responses to establish baseline scores for pain that their patients are experiencing over time, which allows them to better identify areas of concern as they arise. The tools can also be tailored to patients in clinic, several of which are designed for patients who are non-verbal.

"The toolbox is an expansion of the conversations our specialists are having with their patients at their appointments, but it also adds more structure to how we approach these conversations," said Steven Koop, MD, medical director at Gillette Children's Specialty Healthcare. "The chronic pain toolbox has heightened our awareness of pain. It's allowed us to move from intuition and subjective measurements to being able to assess it in a way that is more clearly defined. Now, the conversation about pain is driving and guiding the course of treatment we provide."

NEWS IN BRIEF

CLEARWAY FUNDS PROJECT TO REACH AFRICAN AMERICAN AND AMERICAN INDIAN COMMUNITIES

ClearWay Minnesota is launching a new project to help African American and American Indian communities access free support to quit smoking. The project, called QUITPLAN Services Ambassadors, will provide in-person engagement with community members to increase use of free cessation tools and coaching offered by the program.

The ClearWay Minnesota board of directors voted in late July to award funding to the Stairstep Foundation, which has worked to close health disparities in the African American community and to improve access to affordable health care; and the Greater Minneapolis Council of Churches/Division of Indian Work, which works to empower urban American Indians through cultural-based education, counseling, advocacy, and leadership development.

"At ClearWay Minnesota, we're committed to providing free support for all smokers who want to quit," said David Willoughby, CEO of ClearWay Minnesota. "This Ambassador project will

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ROBOTIC PLATFORM FOR ESOPHAGEAL SURGERY IMPROVES PATIENT OUTCOMES

Researchers at Allina Health have shown that robotic assisted transhiatal esophagectomy (RATE) is effective and safe for a carefully selected group of patients. RATE is a technically complex procedure that has potential for improved patient outcomes after surgery.

“Very few centers have adopted robots for this procedure because of the technical difficulties and unique skills that are needed by the surgeons and the operating room staff,” said Daniel Dunn, MD, a retired Allina surgeon and principal investigator of the study. “But the robotic arms can turn and twist and reach more places than human hands will ever be able to.” Dunn added that robotic technology gives surgeons a better view during surgery and lymph nodes can be removed without additional incisions.

The team conducted a retrospective review of 100 patients from Virginia Piper Cancer Institute–Abbott Northwestern, most of whom had esophageal cancer and underwent RATE between March 2007 and December 2014. Allina Health researchers interpreted clinical and safety information, while a collaborator at the Masonic Cancer Center at the University of Minnesota analyzed survival data, estimating the rate of progression-free survival (PFS) and overall survival (OS) using the Kaplan-Meier curves. They believe the study to be largest of its kind.

The results show that RATE is effective, as shown by its ability to remove the tumor completely in 97 percent of the patients. And patients who underwent the procedure experienced fewer complications and were discharged from the hospital sooner than patients who underwent traditional surgery.

“In our experience, RATE is an effective and safe oncologic surgical procedure in a carefully selected group of patients with acceptable operative time, minimal blood loss, standard postoperative morbidity, and adequate PFS and OS,” the authors of the study wrote.

LINK FOUND BETWEEN BONE LOSS AND CELLS ASSOCIATED WITH AGING

Researchers have discovered a causal link between the cells associated with aging and age-related disease and bone loss in mice. By targeting these senescent cells, researchers were able to increase the bone mass and strength in the mice.

“While we know from previous work that the accumulation of senescent cells causes tissue dysfunction, the role of cell senescence in osteoporosis up to this point has been unclear,” said Sundeep Khosla, MD, director of the Aging Bone and Muscle program at Mayo Clinic’s Robert and Arlene Kogod Center on Aging. “The novelty of this work for the bone field lies in the fact that, rather than targeting a bone-specific pathway, as is the case for all current treatments for osteoporosis, we targeted a fundamental aging process that has the potential to improve not only bone mass, but also alleviate other age-related conditions as a group.”

help address commercial tobacco use among communities that have long been disproportionately targeted by the tobacco industry and have some of the highest cigarette smoking rates.”

The most recent Minnesota Adult Tobacco Survey, conducted in 2014, showed that 14.4 percent of the adult population in Minnesota smokes tobacco products, a 35 percent decrease from 1999 and the lowest smoking rate ever recorded in the state. However, according to ClearWay Minnesota, “diverse communities often smoke at higher rates and have greater disease burdens than the general population in Minnesota.”

“Local organizations have the best knowledge and judgment about their communities’ needs,” said Willoughby. “These organizations have track records of improving the health and wellness of their communities, and we believe they will help even more people quit commercial tobacco with our help.”

PLANNED PARENTHOOD TO EXPAND REACH AND UPDATE CLINICS

Planned Parenthood Minnesota, North Dakota, South Dakota (PPMNS) has launched a \$20 million, three-year campaign to update and expand health care clinics throughout Minnesota.

A \$6.5 million private donation, the largest gift PPMNS has ever received from a living donor, is allowing the organization to move forward immediately to build a state-of-the-art health care facility to replace the current Planned Parenthood clinic in uptown Minneapolis. The clinic serves almost 13,000

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The team used multiple approaches to target senescent cells in mice with established bone loss between 20 and 22 months of age (the equivalent of over age 70 in humans), including a genetic approach, where senescent cells can be killed off; a pharmacological approach, where senolytic drugs previously developed at Mayo Clinic eliminate senescent cells; and a Janus kinase inhibitor approach, where a drug blocks the activity of Janus kinase enzymes to eliminate the toxic products produced by senescent cells.

“The effects of all three approaches on aging bone were strikingly similar,” said Khosla. “They all enhanced bone mass and strength by reducing bone resorption but maintaining or increasing bone formation, which is fundamentally different from all current osteoporosis drugs.”

The researchers administered a senolytic drug combination once per month to eliminate senescent cells. They discovered benefits on bone in elderly mice and that the senolytic drugs were effective only when given intermittently. They say this supports the link between senescent cells and age-related bone loss.

“Even though this senolytic drug combination was only present in the mice for a couple of hours, it eliminated senescent cells and had a long-lasting effect,” said James Kirkland, MD, PhD, director of the Kogod Center on Aging and co-corresponding author of the study. “This is another piece of the mounting evidence that senolytic drugs are targeting basic aging processes and could have widespread application in treating multiple chronic diseases.”

U OF M MEDICAL STUDENT AWARDED FOR EXCELLENCE IN MEDICINE LEADERSHIP

Brooke Dugdale, a fourth year medical student at the University of Minnesota Medical School, has received the Excellence in Medicine Leadership Award from the American Medical Association Foundation. The award, given annually to 10 medical students and five early career physicians selected from across the U.S., recognizes outstanding leadership in the areas of advocacy, community service, and/or education.

Through organized medicine and community activities, these individuals make a difference in the quality of health care and organized medicine from different stages of the physician training process.

Dugdale was previously a counselor and ESL teacher at a high school in Minneapolis, where she served for eight years before enrolling in medical school. Since then, she has participated in public health advocacy work, homeless health outreach, and global health care service in Ecuador and India. In addition, she has presented a lecture series for medical school peers about intercultural best practices and cultural competency in medicine.

The program provides leadership development training for the Excellence in Medicine Leadership Award recipients to further strengthen their efforts of advancing health care in the U.S.

patients and the new facility will allow them to meet a growing demand for services. Work on the new clinic will begin immediately and patients will receive care in a temporary facility until the new one is completed.

Additional funds raised through the campaign will go toward ensuring that all 19 health care clinics throughout PPMNS’ region are updated with modern amenities and building new clinics in areas that don’t currently have a Planned Parenthood clinic.

MAYO CLINIC ALUMNI RECOGNIZED FOR RESEARCH

The Mayo Clinic Alumni Association has awarded two alumni for their research efforts.

Johnathon Aho, MD, PhD, of Mayo Clinic’s division of general surgery, received the Donald C. Balfour Alumni Award for Meritorious Research, which recognizes outstanding research by a resident of the Mayo Clinic School of Graduate Medical Education whose training is in a clinical field. Aho was recognized for his research in the translation of tissue engineering and engineering principles and devices to clinical care.

Rene Rodriguez Gutierrez, MD, of Mayo Clinic’s division of endocrinology, metabolism, diabetes, nutrition, and internal medicine, received the Edward C. Kendall Alumni Award for Meritorious Research, which recognizes outstanding research by an individual whose primary appointment is in research. Gutierrez was recognized for his research in evidence-based and patient-centered endocrinology and diabetes care.

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