Reducing Sepsis Mortality Rates

A novel program implemented across the Emergency Department and all inpatient units at The Mount Sinai Hospital is being credited with helping the hospital achieve a three-year reduction in sepsis mortality.

The “Stop Sepsis Program” is based upon a project developed in 2011 by the Department of Emergency Medicine and the Division of Pulmonary, Critical Care and Sleep Medicine to enhance the early identification and management of patients with suspected sepsis, a condition that results from infection and can quickly become life-threatening when it impairs blood flow to organs.

“More cases of sepsis are now being recognized earlier, and the number of deaths being attributed to sepsis is decreasing,” says Charles A. Powell, MD, Chief of the Catherine and Henry J. Gaisman Division of Pulmonary, Critical Care and Sleep Medicine, and the Janice and Coleman Rabin Professor of...
Study Reveals Common Genetic Changes Are Significant in Autism

(continued from page 1)

were published in the July 20, 2014, issue of *Nature Genetics*.

In the study, the largest of its kind ever undertaken, Mount Sinai researchers worked in collaboration with Swedish scientists, analyzing 500,000 common genetic variants from 5,046 people, of whom 466 had autism. The team then corroborated their results with a longitudinal Swedish study that followed more than 1.6 million families, and included more than 14,000 individuals with autism.

“Most of the risk for autism is found in common variants, but we know that in a specific individual, a spontaneous mutation or other rare mutation is often the decider, with the interaction between the common variants and rare mutations leading to the diagnosis,” Dr. Buxbaum says. “There was already evidence two years ago that both common and rare genetic variation contributed to autism. Using this unique sample, we were able to make it perfectly clear regarding relative contributions, and showed that common variation is significantly more important than generally appreciated.” The study was funded by the National Institutes of Health (NIH) and the Beatrice & Samuel A. Seaver Foundation.

Dr. Buxbaum is currently leading a multinational consortium that is completing a study of 5,800 individuals with autism to identify spontaneous and other rare mutations, as well. The consortium is using advanced methods to look at every gene in the genome.

“Together, with support from the NIH and enormous philanthropy from the Seaver Foundation, and others, we are able to be very aggressive in advancing the field, and defining the next generation of diagnostic tools and treatments for autism, both behavioral and pharmacological,” says Dr. Buxbaum.

Learning About Health Care Through Internships

Fifteen high school, college, and graduate students who aspire to careers in the field of health care, participated this summer in internships throughout the Mount Sinai Health System, in areas such as medical records, managed care, ambulatory care, scientific research, and real estate services.

The internships, which provide educational opportunities to underrepresented minority students, were supported by the Mount Sinai Health System’s Office for Diversity and Inclusion in partnership with the Greater New York Hospital Association (GNYHA), the Committee for Hispanic Children and Families, and Prep for Prep, an organization that prepares students of modest backgrounds for placement at high-ranking institutions in the country.

“This has been a challenging and fulfilling experience,” says New York City high school student Ethan Zhou, a Prep for Prep intern who investigated the gene expression profiles of cells infected with different viruses and cancers, under the supervision of Benjamin Greenbaum, PhD, Assistant Professor, Medicine (Hematology and Medical Oncology), Icahn School of Medicine at Mount Sinai.

Long Island University graduate student Elizabeth Diaz, a GNYHA intern in the Office for Diversity and Inclusion, was supervised by Pamela Abner, Chief Administrative Officer. “This internship experience has taught me to think critically, and to take advantage of the opportunities that I am presented with,” says Ms. Diaz. She was among five interns who attended a lunchtime roundtable in July that was hosted by David Reich, MD, President of The Mount Sinai Hospital and Mount Sinai Queens, in which the students shared their career goals, and Dr. Reich discussed the importance of a graduate or professional school education.

A group of interns also met with Hope Bellingham, Vice President of Financial Planning, to discuss financial management and the recent effects of the Affordable Care Act on hospital finances.
A comprehensive outpatient Kidney Stone Center, which will offer patients new minimally invasive techniques and a holistic approach to prevention, will be the first of its kind in New York City when it opens this fall in two Manhattan locations.

The Center will be headed by Mantu Gupta, MD, who was recently named Director of Endourology and Stone Disease for the Mount Sinai Health System, Chair of Urology at Mount Sinai Roosevelt and Mount Sinai St. Luke’s, and Professor of Urology.

The Center will focus on prevention, education, and continuous care, and patients will be treated by a multidisciplinary team comprised of an endocrinologist, a nephrologist, and a nutritionist. Treatment will include alternative medicine techniques, such as the use of herbs and acupuncture.

The Center is expected to treat more than 100 kidney stone patients a week. The two facilities will have the capability to perform x-rays, ultrasounds, and minimally invasive procedures—many of which were discovered by Dr. Gupta, a world-renowned clinician and researcher with a specialty in urinary stone disease, ureteropelvic junction obstruction, urinary tract obstruction, and upper tract urothelial malignancies.

Kidney stone occurrence is on the rise today, along with the increase in obesity and diabetes. Men suffer from the condition at a higher rate than women, but women are catching up: The long-standing male-to-female ratio of incidence was 2:1. Today, it stands at 3:2, says Dr. Gupta.

According to Dr. Gupta, few physicians offer postoperative care to kidney stone patients, and, as a result, patients often return a year or two later with another kidney stone. “However, if we treat kidney stone cases comprehensively with a team of experts in minimally invasive procedures, and educate patients about follow-up care and alternative approaches, we will provide our patients with a more holistic approach to maintaining their health,” says Dr. Gupta.

Before joining Mount Sinai in May, Dr. Gupta had served for nearly two decades as Associate Professor, Director of Endourology, and Director of the Kidney Stone Center at Columbia University Medical Center. “One reason I decided to join Mount Sinai to serve as a Chair and head the kidney stone disease program is to help bring this holistic, continuous-care concept to fruition,” says Dr. Gupta.

Over time, Dr. Gupta’s goal is to have the Center become the largest such program in the Northeast, and to gather clinical data that would considerably advance research into new kidney stone management strategies.

The Kidney Stone Center will treat patients at 625 Madison Avenue, within the Mount Sinai Department of Urology, and at 425 West 59th Street, in Mount Sinai Roosevelt’s Brodsky building.

Mount Sinai to Open Kidney Stone Center

Reducing Sepsis Mortality Rates  (continued from page 1)

Pulmonary Medicine. Dr. Powell is leading the hospitalwide “Stop Sepsis Program” collaboratively with the Office for Excellence in Patient Care, and teams of physicians and nurses.

The hospital’s baseline sepsis mortality rate in 2011 was 31.2 percent, but through process improvements and program expansion, it has decreased to 15.4 percent during the first half of 2014. The program’s goal is to achieve a 15 percent sepsis mortality rate for 2014.

Increased sepsis vigilance likely helped save at least 76 lives in 2012, and 93 lives in 2013, and the hospital is on track to save more than 150 lives this year. Mount Sinai Queens has also adopted the “Stop Sepsis Program,” and in the future, elements of the program will be adapted across the Mount Sinai Health System.

“The sepsis program has fostered an enhanced collaborative team approach among nurses, sepsis nurse practitioners, and physicians, resulting in better quality of care and improved patient outcomes,” says Vicki LoPachin, MD, Chief Medical Officer of The Mount Sinai Hospital, and the executive sponsor of the program.

The program depends upon early recognition of symptoms by nurses who complete a sepsis screening, and is guided by a vital-sign tracking and notification tool within the Epic electronic health record system. A positive screening combined with abnormal vital signs, such as fever and increased respiratory and heart rates, will trigger an alert in Epic to escalate care. A team of physicians and specially trained Sepsis Nurse Practitioners further assess the patient and begin aggressive sepsis care as appropriate. Physician and Nursing Sepsis Champions from 20 service areas review all of the suspected cases of severe sepsis and adherence to the hospital’s protocol, providing continued feedback on outcomes and opportunities for improvement.

According to Judy Miranda, RN, Nursing Director, Transplant, and Rehabilitation Medicine, “We have created not only a culture of patient-centered care, but a learning environment for our nurses and physicians, all with the goal of providing exceptional care.”

Adds Scott Lorin, MD, Associate Professor of Medicine (Pulmonary, Critical Care and Sleep Medicine), Director of the Medical Intensive Care Unit, and a program leader: “This program is successful because of its data-driven, multidisciplinary approach to implementation, evaluation, and improvement. Ultimately, it is gratifying to know that this benefits our patients.”
Events

Nursing Research Symposium
To submit abstracts and register for the first annual Nursing Research Symposium presented by the New York Eye and Ear Infirmary of Mount Sinai Nursing Research Council, go to http://nurses.mountsinaihealth.org/NYENursingResearchSymposium.

Friday, September 12
Deadline for
Submissions and Registration

Wednesday, October 1
Seminar
9 am – 4 pm
310 West 14th Street

Grand Rounds Medicine
Davendra Mehta, MD, Director, Cardiac Electrophysiology, Mount Sinai St. Luke’s, presents “Cardiac Sarcoidosis.”

Tuesday, August 26
8:30 – 9:30 am
The Mount Sinai Hospital Campus
Hatch Auditorium

Grand Rounds Obstetrics & Gynecology
Brigitte M. Ronnett, MD, Professor, Pathology, and Gynecology & Obstetrics, The Johns Hopkins University School of Medicine, presents “Hydatidiform Moles: Ancillary Techniques to Refine Diagnosis.”

Tuesday, September 9
8 – 9 am
Mount Sinai Roosevelt Conference Room 2B

Grand Rounds Medicine
Charlotte Cunningham-Rundles, MD, Professor, Medicine (Clinical Immunology), and Pediatrics, presents “Immune Deficiency Disorders.”

Tuesday, September 9
8:30 – 9:30 am
The Mount Sinai Hospital Campus
Hatch Auditorium

Grand Rounds Pathology
Meera Hameed, MD, Professor of Pathology and Laboratory Medicine, Memorial Sloan-Kettering Cancer Center, presents “Molecular Markers and their Clinical Applications in Bone Tumors.”

Thursday, August 28
11:45 am – 12:45 pm
The Mount Sinai Hospital Campus
Hess Center, Seminar Room A

Grand Rounds Obstetrics & Gynecology
Brigitte M. Ronnett, MD, Professor, Pathology, and Gynecology & Obstetrics, The Johns Hopkins University School of Medicine, presents “Hydatidiform Moles: Ancillary Techniques to Refine Diagnosis.”

Tuesday, September 9
8 – 9 am
Mount Sinai Roosevelt Conference Room 2B

Grand Rounds Medicine
Charlotte Cunningham-Rundles, MD, Professor, Medicine (Clinical Immunology), and Pediatrics, presents “Immune Deficiency Disorders.”

Tuesday, September 9
8:30 – 9:30 am
The Mount Sinai Hospital Campus
Hatch Auditorium

Courtside at the US Open
The Mount Sinai Hospital is the official hospital of the United States Tennis Association (USTA), US Open, US Davis Cup team, and US Fed Cup team. At this year’s US Open, which takes place Saturday, August 23 – Monday, September 8, volunteers will be on hand to distribute sunscreen and information on skin cancer. A “Video Health Desk” will feature Mount Sinai health experts discussing injury prevention, dermatology, nutrition, and more. For additional information about the “Video Health Desk” schedule and Mount Sinai’s partnership with the USTA, visit www.mountsinaihealth.org/usopen.

Education

Big Data and Health Care Analytics Symposium
This joint symposium will feature presentations by faculty from Icahn School of Medicine at Mount Sinai and Rensselaer Polytechnic Institute; networking opportunities; and a reception. The event will stream online at http://bit.ly/bigdataevent. To learn more, contact Patricia Kovatch at patricia.kovatch@mssm.edu, or Louise Lammers at louise.lammers@mssm.edu.

Thursday, September 4
11 am – 5 pm
CBIS Auditorium
Rensselaer Polytechnic Institute
110 8th Street
Troy, New York

INSIDE MOUNT SINAI
2014 Marketing & Communications
Carrie Gottlieb, Editor
Marilyn Balamaci, Editor
Ha Ly, Graphics Manager

SUBMISSIONS
Box 1475
inside@mssm.edu

VISIT INSIDE ON THE WEB
www.mountsinai.org/inside

To find out what’s happening right now, follow Mount Sinai on Twitter @MountSinaiNYC

Visit us on Facebook
facebook.com/mountsinainyc