



## The many faces of patient safety

**FROM ENVIRONMENTAL SERVICES** to Police and Security, from the Endoscopy Unit, to Anesthesia, Critical Care and Pain Medicine to the Emergency Department, patient safety comes in many forms, from many departments. Physicians, nurses, residents, administrative staff and technicians are among those who play a part in patient safety, and who were honored and celebrated as 2017 Patient Safety Stars at an appreciation breakfast March 15.

Forty-three MGHers from more than 20 departments were recognized at the eighth annual event for their commitment to patient safety within the hospital. Nominated by their peers, the Patient Safety Stars demonstrate extraordinary dedication and efforts to improve and enhance patient safety at the MGH. Their commitment stretches beyond the walls of the hospital – speaking up for safety not only on the floors of the Ellison, Blake and White buildings, but at Danvers Ambulatory Care,

Back Bay HealthCenter and the Charlestown Navy Yard.

“Our patient safety stories continue each and every day throughout the year,” said Jana B. Deen, RN, JD, senior director of Patient Safety in the Center for Quality and Safety. “Never hesitate to share those stories and stand up for patient safety as our 2017 stars have done. Congratulations and thank you to all.”

The celebration of the Patient Safety Stars was part of Patient Safety Awareness Week, March 12-18. Lectures and panel presentations were hosted throughout the week, focusing on various ways to recognize and improve patient safety. Among the events were two presentations by keynote speaker James P. Bagian, MD, PE, director of the Center for Healthcare Engineering and Patient Safety at the University of Michigan, on March 14.

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## New Neurosurgery chief not-so-new to MGH

**THE MGH DEPARTMENT OF NEUROSURGERY** has welcomed its new chief. Bob Carter, MD, returned to the MGH Feb. 1 after spending the past seven years as chair and chief of the Neurosurgery Service at the University of California, San Diego.

“I’m very excited,” says Carter. “There’s a combination of both an excitement about what lies ahead in terms of where we want the department to go, but there’s also a familiarity as I walk these halls that’s not only comforting, but also reminiscent of all the great things that MGH stands for.”

Carter spent the last several years of his career on the West Coast where he led the formation of the hospital’s first Department of Neurosurgery and co-founded the UC San Diego NeuroInstitute. Earlier in his career – after earning his medical degree from the Johns Hopkins School of Medicine and his doctorate in genetic epidemiology from the Johns Hopkins Bloomberg School of Public Health in 1992 – Carter was a surgical intern at the MGH. Following his internship, he became a resident in Neurosurgery.

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CARTER

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## ResearchRoundup

**RESEARCH** at the MGH is interwoven throughout more than 30 departments, centers and units, and is conducted with the support and guidance of the MGH Research Institute. The Research Roundup is a monthly series highlighting studies, news and events.

### USING SMARTPHONES TO MEASURE PARKINSON'S DISEASE SYMPTOMS

Mobile technology has impacted nearly every aspect of our lives, including how we manage our health. A recently launched substudy from researchers at the MGH will look into utilizing patient-owned smartphones to measure symptoms of Parkinson's disease. Results will help researchers better understand the feasibility and accuracy of using mobile technology as a data collection tool in clinical trials.

Participants in this substudy will use an app to answer symptom surveys and complete activity tests that utilize the sensors in the phone to assess performance in movements that are affected by Parkinson's. Results from participants' weekly at-home self-assessments will be compared to assessments taken in-clinic during regular study visits to determine whether results are consistent and if the smartphone results provide any additional insights.

This substudy is part of a larger NIH-funded Parkinson's disease clinical trial. Researchers are optimistic that mobile technology will transform clinical trials and provide an opportunity to track

participant progress more frequently than is possible with in-clinic evaluations.

Michael Schwarzschild, MD, PhD, of the MGH Department of Neurology, is the study's lead investigator.

### ACUPUNCTURE MEASURABLY IMPROVES OUTCOMES OF CARPAL TUNNEL SYNDROME

A new study shows that acupuncture treatments not only reduce patient-reported experiences of pain in carpal tunnel syndrome (CTS), but this ancient therapy also makes a measurable difference in how the brain processes nerve signals that are compromised by the painful repetitive motion disorder.

CTS is one of the few chronic pain disorders associated with objective measurable changes. Because CTS is a result of compression of the median nerve in the arm, impulses between the wrist and the forearm – such as motor function and sensation – are slowed down. Additionally, studies have shown that the brain – particularly the part that receives touch-related signals – is remapped in CTS. Specifically, brain cells that usually respond to touch signals from individual fingers start to respond to signals from multiple fingers.

Study participants received either electro-acupuncture at the affected hand, at the ankle opposite the affected hand or sham electro-acupuncture with placebo needles near the affected hand. Results were measured before and after eight weeks of therapy sessions (16 sessions total) using a questionnaire and MRI scans.

Researchers found that the 80 participants across all three groups reported improvements in their pain and numbness after the treatments. However, only participants who received real acupuncture – either at the affected hand or at the ankle – saw improved nerve impulses in the wrist. Those that received real acupuncture at the affected hand also experienced brain remapping linked to long-term improvement in CTS symptoms. No physiologic improvements resulted from sham acupuncture.

Researchers will now plan further research to better understand how acupuncture works to relieve pain in an effort to help improve non-pharmacological care options for chronic pain patients.

Vitaly Napadow, PhD, director of the MGH Center for Integrative Pain Neuroimaging at the Martinos Center for Biomedical Imaging, is senior author of this study. ■

## Recognizing Pulmonary Rehabilitation Week

**IN RECOGNITION OF** Pulmonary Rehabilitation Week – March 12-18 – Matt Nippins, PT, DPT, CCS, of MGH Physical Therapy Services, discusses pulmonary rehabilitation efforts at the MGH.



NIPPINS

### HOW DO YOU DESCRIBE PULMONARY REHABILITATION?

Pulmonary rehabilitation is a program designed to give people with chronic lung disease the tools to exercise and learn more about how to manage their condition. Physical therapists help participants establish a safe and effective exercise program that works with their individual strengths and weaknesses to decrease breathlessness, improve quality of life and

decrease the likelihood of hospitalization. In addition to working with physical therapists, participants meet with respiratory therapists, physicians, social workers and dieticians to help understand how to use medications, conserve energy, improve muscle strength, use oxygen if needed and recognize and reduce anxiety and depression.

### WHO CAN BENEFIT FROM PULMONARY REHABILITATION?

Anyone who has a chronic lung disease and feels short of breath during activity can make improvements in pulmonary rehab. In addition, people who don't necessarily feel short of breath, but who also do not currently

participate in an exercise program, can also benefit. Pulmonary rehabilitation has proven to be especially beneficial to those who have chronic obstructive pulmonary disease (COPD).

### HOW DOES PULMONARY REHAB HELP PATIENTS FEEL LESS BREATHLESS?

Think of pulmonary rehabilitation as a tune-up. If you tune up your car you get better gas mileage. Pulmonary rehabilitation makes your muscles more efficient in using the oxygen from your lungs and you end up being able to do more with less shortness of breath.

### CAN PEOPLE EXERCISE IF THEY REQUIRE SUPPLEMENTAL OXYGEN?

Absolutely. Pulmonary rehabilitation also includes education about the use and options for supplemental oxygen.

### WHAT ADVICE WOULD YOU OFFER TO PEOPLE WHO FEEL THEY ARE TOO UNSTEADY OR HAVE ACHEs AND PAINS THAT PREVENT THEM FROM EXERCISING?

The benefit of having a multidisciplinary pulmonary rehabilitation program is that we can address all of these issues and design a program specific to each patient's needs. In physical therapy, we see patients with a variety of different needs and we have the ability to tailor therapy for most patients. As part of the physical therapy evaluation, the physical therapist will identify and address each individual's gait, balance and musculoskeletal issues.

## MGPO chairman and CEO steps down

**THOMAS J. LYNCH, JR., MD**, stepped down this week from his role as chairman and CEO of the MGPO to accept a senior leadership opportunity at Bristol-Myers Squibb. Effective March 16, Lynch became the executive vice president and chief scientific officer of the global biopharmaceutical company, leading its Research and Development enterprise.

The process of forming a search committee to identify a new CEO is under way. In the meantime, Greg Pauly, COO of the MGPO, will serve as interim CEO.

“While this news is sad for the MGPO and MGH – indeed for all of us who have worked with and learned from him – this new role offers Tom an important and highly visible platform to make a far-reaching difference on the health of patients around the world,” said Peter L. Slavin, MD, MGH president.

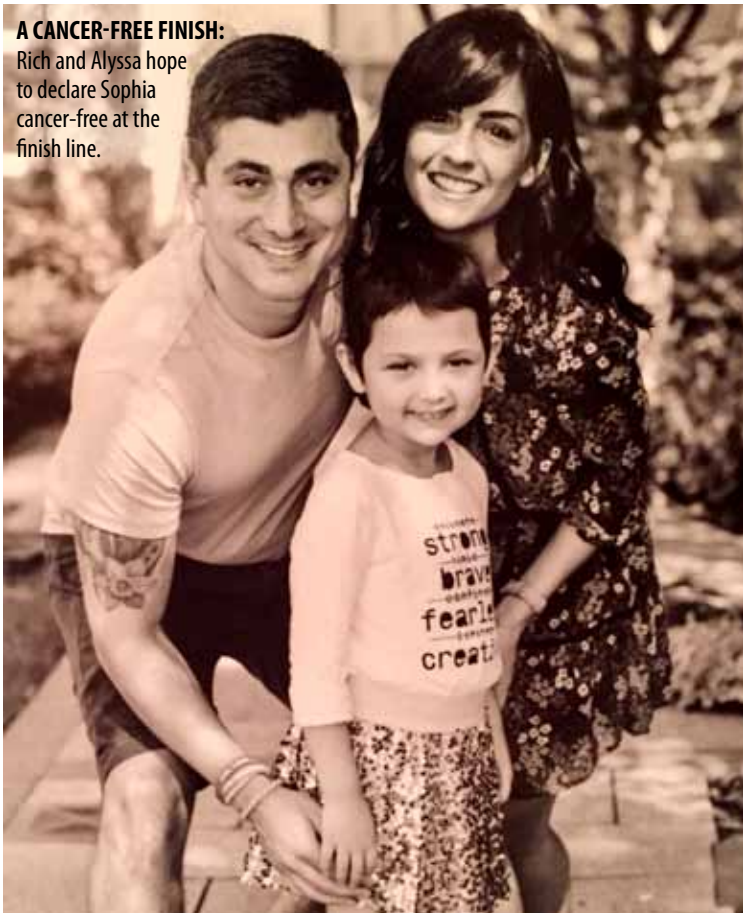
Lynch joined the MGH medical staff in 1993, after completing his residency in medicine at the MGH and a fellowship in medical oncology at Dana-Farber Cancer Institute. He then served as chief of Hematology-Oncology at the MGH Cancer Center and director of the Center for Thoracic Cancers before accepting a role as director of the Yale Cancer Center and physician-in-chief of the Smilow Cancer Hospital at Yale-New Haven. He returned to lead the MGPO in September 2015.

## *Fighting cancer not a sprint, but a marathon*

**AS 30-YEAR-OLD ALYSSA MAGLIONE** ran past the Boston Marathon Mile 20 marker last year, MGH pediatric cancer team supporters shook pom-poms, rang cow bells and shouted words of encouragement. But Alyssa only needed one thing to boost her energy – stepdaughter Sophia’s smiling face.

### **A CANCER-FREE FINISH:**

Rich and Alyssa hope to declare Sophia cancer-free at the finish line.



Just hours before, Sophia, 8, had completed a six-week proton radiation protocol and despite the long treatment day on April 18, 2016, she rushed to the course with her dad, Rich. They stood poised at the metal barrier scanning the crowd for Alyssa. When she rounded the corner, Sophia snuck through the rails and ran 50 feet with her stepmom. “The strength Sophia found to support me was all I needed to tackle the hills ahead. If she could battle through a relapse and radiation, I could run,” says Alyssa. “Sophia’s a tough kid. She doesn’t easily cry, but she did on Marathon

Monday. She was proud of me and of the people who do so much for her.”

On April 17, Alyssa will run as part of the MGH Marathon team, “Fighting Kids’ Cancer ... One Step at a Time,” this time accompanied by husband Rich Maglione. The team raises money for the Pediatric Hematology and Oncology Division at the MassGeneral Hospital for Children (MGHfC), where Sophia is being treated for medulloblastoma – a fast growing tumor that develops in the brain. First diagnosed in New York at age 2 ½, Sophia then underwent three brain surgeries, five rounds of chemotherapy and a stem cell transplant. Sophia’s cancer returned in January 2016 and after another brain surgery, she required 30 rounds of proton therapy at the MGH before more chemotherapy could be administered.

“Sophia’s doctors told us she needed to receive radiation this time around and that proton therapy was only available at a handful of hospitals around the country, one of those hospitals being MGH,” says Alyssa. “Since I grew up in the Boston area, I always knew that MGH was the best, so my husband and I transferred Sophia’s care to MGHfC right away. From the pediatric perspective, our family can’t imagine being anywhere else.”

Alyssa and Rich are thankful for the personalized care Sophia receives coupled with the clinical, yet comforting, expertise of David Ebb, MD, a physician in Pediatric Hematology-Oncology, and staff. “No matter what the time or reason, the doctors always call back and patiently answer questions until we’re feeling OK. Dr. Ebb has an unparalleled ability to settle our minds. We feel like he’s been through these complicated issues personally.”

When they cross the Boylston Street finish line, the couple hopes to declare Sophia cancer-free. They are incorporating the determination and focus learned throughout Sophia’s care into their marathon training. Despite bumps, bruises and bad knees, Alyssa and Rich promised their daughter they will finish this year’s race – despite learning from all they have been through that plans don’t always materialize as thought.

“Sophia makes us resilient,” says Rich. “We are running because the team of doctors and nurses at the clinic saved Sophia’s life and although we can never thank them enough, we can run, so that’s what we are going to do. Fighting cancer is not a sprint, it’s a marathon.” ■

*This story is part of a series that MGH Hotline will publish in advance of the 2017 marathon featuring the Pediatric Oncology and Emergency Response Teams. In addition, individuals will run for the Miles for Mass General Program, which raises funds for hospital programs that are close to their hearts – including Botswana Oncology Global Outreach, Caring for a Cure, Cystic Fibrosis, Down syndrome and the Lurie Center for Autism.*

## — *New chief*

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Additionally, Carter was a post-doctoral fellow in gene therapy at the Whitehead Institute at MIT and Boston Children's Hospital.

During his early faculty years at the MGH, he participated in the hospital's yearlong Administrative Leadership Program and was the director of Education for the Department of Neurosurgery from 2005 to 2010, while simultaneously serving as an associate professor at Harvard Medical School.

Since his return one month ago, Carter has established several goals for the department, one of which highlights the importance of team building.

"One of the things we've emphasized early on is developing the opportunity for teams of clinicians to thrive together," Carter says. "For example, in neurovascular care we have specialists in Neurology, Radiology and Neurosurgery who work together to try to achieve the best outcome for a patient. This might involve advanced imaging, certain neurosurgical techniques and great neuro-critical care. How do we build on that? How do we bring ourselves together? An early emphasis with the chiefs of Neurology and Radiology has been on creating organizing structures for neurovascular care that help us deliver the best care." Following this theme, Carter notes, "we also see opportunities for further development in our spinal neurosurgery program in collaboration with Orthopaedics."

Another goal Carter has for the department involves reorganizing the clinical structure to create an acute care neurosurgery initiative and develop an academic neuro-trauma program. "We want to have the best Department of Neurosurgery in the country, bringing together our wonderful nursing, allied providers and physician teams so patients feel like they are in a 'neuro hospital within a hospital.' Through collaboration, I know we can bring together the many strong and diverse parts of the MGH and break down barriers."

Carter says he is happy to be back at the MGH.

"It has been interesting since I came back," Carter says. "You walk down the hall and see faces you haven't seen in seven years and there have been many great reunions. It's been a wonderful welcome back on all fronts."

Carter succeeds Robert Martuza, MD, who will remain an active member of the department, focusing on research and serving as a mentor.



## A toast to building stronger communicators

**THE TOASTMASTERS GENERAL CLUB** recently hosted an International and Table Topics speech contest where participants gave a one to two-minute impromptu speech. The table topics theme was picked by the contest chair and given to participants immediately prior to their scheduled time to speak. Those who participated in the international speech challenge gave a five to seven-minute speech, which they were able to prepare in advance. Participants were required to complete at least six speeches from the Competent Communication manual prior to the contest.

MGHers who participated in the contests were, from left, Toshi Oki, International Speech contestant; Laura Ciccone, Table Topics contestant; Sivia Malloy, contest chair; Melissa DeJesus, International Speech contestant; and Belinda Phelps, Table Topics contestant.

Toastmasters General was chartered by Toastmasters International in November 2014. It is a community club and the group welcomes anyone over the age of 18 who is interested in becoming a stronger communicator and leader to join. The group meets the first and third Wednesday of every month, 5:30-6:30 pm. New members may join at any time.

## — *Patient Safety Stars*

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"As I was driving to work through on the day of the Nor'easter I wondered how we would do with attendance. To my delight, the O'Keefe Auditorium was packed for the 8 am Grand Rounds with Dr. Bagian," said Elizabeth Mort, MD, senior vice president of Quality and Safety and chief quality officer. "It is clear that patient safety is something everyone at the hospital continues to care deeply about, even while a huge snowstorm was upon us." ■

### CHANGE IN *HOTLINE* SCHEDULE

*MGH Hotline* will have an updated print schedule for the months of March and April. There will be editions March 31, April 14 and April 28.

