

Metrowest Medical Center

NEQCA

Jordan Hospital

HEART TO HEART

building a network
of experts to treat
heart failure in MA

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A LETTER FROM ELLEN ZANE

Dear Physicians,

I write this to you with an enormous sense of pride and some sadness, as this will be my final Good Medicine letter. As many of you know, I will retire as Tufts Medical Center's President and CEO at the end of September, although I plan to remain an active member of the Tufts MC and Massachusetts health care community for a long time to come. Specifically, I will remain a consultant to the Medical Center for the next year and will serve as a Vice Chair on the Board of Trustees. I value and enjoy being part of this amazing community of caregivers, innovators and leaders far too much to leave it entirely!

As you know, the past seven years have been a time of unprecedented change, not only for Tufts Medical Center but also for health care and the practice of medicine in general. I joined this institution when it was still "Tufts-New England Medical Center" and I'm pleased to be stepping down under a name and logo that better highlights our close affiliation with Tufts University and Tufts University School of Medicine. Many of the changes implemented at Tufts MC have been undertaken with you in mind; our goal has been — and will continue to be — to provide our referring physicians with the best possible service and to make it easier and more productive for you to work together with us on behalf of your patients.

I wanted to review with you some of the strategic work my team and I have done to position Tufts Medical Center to remain a strong referral partner for you as our health care system continues to rapidly evolve. I am confident, and our Board of Trustees agrees, that the next leader of Tufts Medical Center will stay steady at the helm in pursuit of these strategies:

We will continue to lead the way in preparation for the arrival of Accountable Care Organizations. Just what ACOs will ultimately look like is still being defined, but our Distributed Academic Medical Center™ model is the right one to position our Medical Center and our affiliates for whatever lies ahead. As many of you know and have experienced, through our model, our physicians work with our affiliate community hospitals to keep care in the community and stop unnecessary "leakage" into Boston. Our community affiliates also know that when they refer tertiary cases to us, their patients will receive the highest quality care and it will be delivered at an efficient and responsible cost.

We will continue to embrace change, but insist on fairness. Our 1,500-strong community physicians network, New England Quality Care Alliance, and our 500-member Tufts MC Physicians Organization are the heart and soul of the care we offer patients. We will continue to embrace payment reform and the premise that we should be rewarded for delivering high quality, not just for the number of procedures we perform. But in tandem with that we will press private and public payers for reasonable reimbursement that ensures we can offer the highest-quality care. As I always say, I am proud of our position as a "value" provider, and I do not covet the highest rates in this market. Ensuring that we and our colleagues are paid adequately and responsibly means we can offer more value to you and your patients.

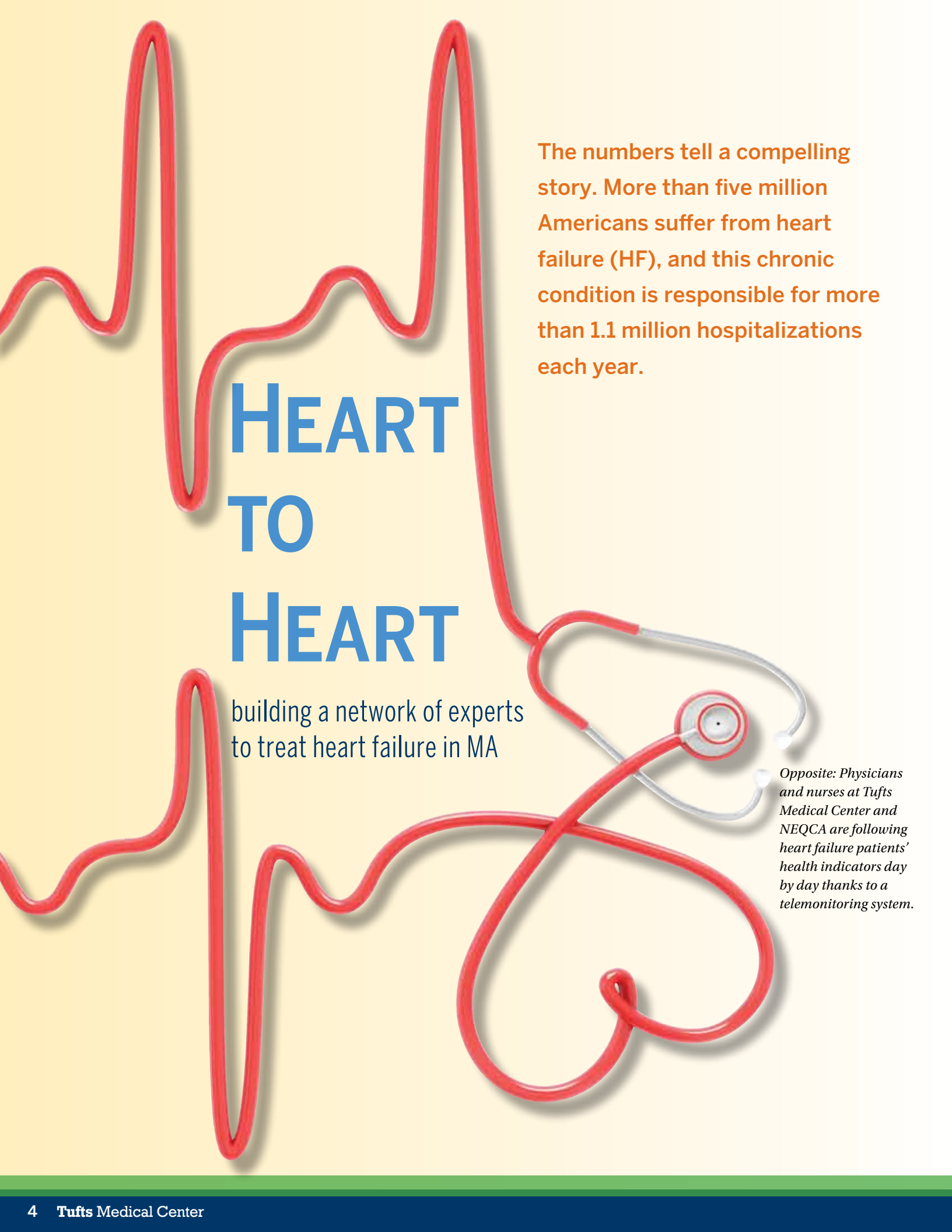
We will maintain our close ties to Tufts University School of Medicine, and our commitment to scientific research. Many of you who trained in other states know that our close relationship to Tufts University — while remaining organizationally independent — is unusually close and valuable to both our institutions. We view teaching and research as vital and complementary to our commitment to excellence in patient care. We know that you value this partnership for what it can bring to your patients, and I can assure you that my successor will as well.

In closing, I must say my discussions with many of you have been among the most enjoyable experiences of my time here. I have been heartened by your loyalty to this institution and your frankness in telling me when we can do better. I assure you that our spirit of openness and service to you and your patients will remain firmly intact as Tufts Medical Center moves forward under its next leader.

Thank you for your ongoing support of Tufts Medical Center! I am deeply grateful to you all.

With all best wishes,

Ellen Zane
President and CEO
Tufts Medical Center



The numbers tell a compelling story. More than five million Americans suffer from heart failure (HF), and this chronic condition is responsible for more than 1.1 million hospitalizations each year.

HEART TO HEART

building a network of experts
to treat heart failure in MA

Opposite: Physicians and nurses at Tufts Medical Center and NEQCA are following heart failure patients' health indicators day by day thanks to a telemonitoring system.

And heart failure's impact on patients' quality of life is incalculable. If ever a condition cried out for more effective management, this is it — and Tufts Medical Center is leading the initiative.

Together with its affiliates Jordan Hospital, Signature Healthcare Brockton Hospital, MetroWest Medical Center and Quincy Medical Center, as well as its physician network New England Quality Care Alliance (NEQCA), Tufts Medical Center is launching an initiative called **New England-Wide Heart Failure Regional Treatment Strategies (NEW-HRTS)**, a regional network to improve care processes, patient outcomes and the cost-effectiveness of HF care.

"Heart failure represents a major opportunity to do better for our patients by implementing an integrated, best-practice disease management program across our emerging network," says Marv Konstam, MD, Chief Physician Executive of the Cardiovascular Center at Tufts Medical Center.

"We've long had major expertise in heart failure, with a robust clinical program to which patients from all over New England are referred," he continues. "We have a number of faculty who are national leaders in this area, and we are very involved in guideline development, consulting for CMS and research. But now, as we implement our Distributed Academic Medical Center™ model and transform that into an accountable care organization (ACO) of the future, we are looking at how to integrate clinical care across the region.

Heart failure is a great area to focus on in this regard because it's a very costly disease, and outcomes are extremely variable based on treatment approaches. It's a ripe area for bringing together clinicians who are focused on a uniform treatment strategy."

Tufts Medical Center clinicians and administrators worked closely with their counterparts at NEQCA to implement



a regional strategy that builds on best practices in care management. Gerontologist Michael Cantor, MD, NEQCA Medical Director, explains:

"Our heart failure care management program includes placement of remote telemonitoring devices in patients' homes that transmit data on their weight and blood pressure. A nurse manager calls these patients to follow up when the

numbers are off," he says. The program also includes patient and caregiver education about medications, dietary adherence and recognizing the signs that a patient's heart failure is worsening.

"The regional network we have built is an opportunity to strengthen the continuum of care for HF patients," Cantor says. "Just bringing together people with the same responsibilities at different institutions in the same room at the same time, we can identify and share what we're doing that's successful."

"It's a system that can track patients' conditions on a continuous basis versus an every-two-months appointment," adds Konstam. "And it provides access to timely, responsive interventions that can pre-empt worsening and prevent the patient from ending up in the ER or hospitalized."

And it works. As Konstam noted in a July 19, 2010 editorial in the *Journal of the American College of Cardiology*, a

HEART FAILURE'S IMPACT ON MEDICARE

Heart failure is the single-largest cost driver within the Medicare population, with the 14 percent of Medicare beneficiaries who suffer from it accounting for 43 percent of Medicare spending, according to a 2008 Medicare report. Preventable hospitalizations account for 75 percent of the costs of treating heart failure.

meta-analysis of remote telemonitoring trials demonstrated reduced rates of HF hospitalization and mortality, improved health-related quality of life, and health care cost reduction.

It's a care management model that can be expanded to the HF patient populations served by the community hospitals in the NEW-HRTS network. But it doesn't stop there. The steering committee is

continued on next page

surveying member sites to inventory what other HF services and processes exist and what each hospital would like to implement over the next few months.

Jordan Hospital, for example, is developing a pilot transitional treatment program in which HF patients participate in a 12-week, 24-session recovery program after hospitalization to prevent readmissions. Working with a nurse or exercise physiologist, patients develop physical tolerance for exercise while enhancing their understanding of and compliance with dietary and medication guidelines.

"We're in the early stages of implementation," says internist and geriatrician James Fanale, MD, Jordan Hospital's

Senior Vice President of System Development. "If the pilot proves to be effective, our vision is to roll it out to other sites through the network collaboration."

Quincy Medical Center consistently sees HF readmission rates of only five to 10 percent — among the lowest in the nation.

"We attribute it to adherence to core measures, focused process improvement efforts and our cardiologists' involvement with the management and follow-up with patients," says Chief Medical Officer Apurv Gupta, MD.

And Signature Healthcare Brockton Hospital has focused attention on consistent patient education.

patients. Patients who are identified as having a high risk for readmissions are visited in-house by a transition care nurse for directed and intensive teaching and are followed by that nurse telephonically post-discharge. Additionally, all patients discharged with a diagnosis of heart failure receive a phone call on days 1, 3, 5, 14 and 30 after leaving the hospital to make sure they are on the right track in their recovery. If they're not, they receive follow-up care from a home-care nurse.

Ultimately, says Konstam, the plan is to bring all these ideas and initiatives together into a regional program that meets local needs, while providing an integrated, evidence-based approach to improving care and outcomes for all patients with HF.

"It's really hard to do anything in a vacuum and think outside the box in your own institution when everyone's used to doing things one way," adds Kelley-Hedgepeth. "With the network, we have people coming at the issue from different perspectives, generating a lot of fresh ideas for a problem that affects all our patients."

"As we continue to build the program, referring physicians will be an integral part of it," Konstam notes. "This is not intended to take patients away from the PCP. On the contrary, this network will succeed only if care is integrated with that of the PCP. Anything we build centers around nurse managers who are in communication with patients' primary care physicians. It's meant to be value-added for them."

A next step for the NEW-HRTS network is to formulate a set of metrics by which success can be measured.

"Bottom line, we'll know we're successful when HF patients are healthier, readmitted less often and know what to do sooner when their condition changes," says Cantor. "It's technically challenging to measure, but having a system in place like this does make it easier to keep patients healthier. And it's a model for future collaboration around other disease states and patient populations." □



"There's a lot of misunderstanding about the importance of diet and medication, and how non-adherence contributes to decompensation and re-admission," says Alyson Kelly-Hedgepeth, MD, a clinical cardiologist



Patients in Tufts MC's and NEQCA's heart failure program use a simple electronic device (right) in their homes that transmits health data to let their physicians know if they are on track with their recovery.

who is Director of the Heart Failure Program at Signature Healthcare Brockton Hospital. "Many of the patients we treat are elderly, so we need to tailor our education to this demographic."

MetroWest Medical Center, the most recent hospital to participate in the new consortium, also has a robust program designed to reduce readmissions for HF

DOCTOR'S NOTES

If you would like to know more about NEW-HRTS — or if your hospital would like to get involved in this regional network — please contact Marv Konstam, MD at 617-636-2273.

WORKING TOGETHER

Real experiences from our referring physicians

Renata Martin, MD

Renata Martin, MD is a primary care physician with the MetroWest Accountable Healthcare Organization, which just joined the New England Quality Care Alliance last fall. Martin's primary referral hospital, MetroWest Medical Center, is a clinical affiliate of Tufts Medical Center.

A primary care physician for 10 years, the past three at MetroWest, Martin is new to using Tufts Medical Center as her preferred tertiary referral hospital, but is pleased with what she and her patients have experienced so far.

"It's been very positive. Basically the process has been very good. I have my receptionist call the referral line and we get a call back with the appointment for the patient. It's been easy for us to do that," she said of the referral process.

Most of the referrals to Tufts MC from her office have been for orthopaedic issues, and she has referred several people from MetroWest Medical Center's ICU to Tufts MC for tertiary care.

"When we were first joining NEQCA and partnering with Tufts Medical Center, they told us they were here to help us. They promised us access to the services we need and that they would keep local care local. They have really done all of that. They've been very supportive and very friendly in trying to meet with everybody. I think it's been a good move," she said of the affiliations between MWMC and Tufts MC and the MetroWest AHO and NEQCA.

Martin said that access to the highest quality of care is critical to her. "I want to have access to state-of-the-art medical care and I want to know when I send patients there that they are going to get the best care."

That is exactly what her patients have experienced. "When patients come back, they really have good things to say about Tufts," she said. Her ICU patients have been particularly enthusiastic about their treatment at Tufts MC. "They were very pleased with the care they received and the doctors there — all the care, really, and they feel very grateful, they feel that the people at Tufts saved their lives." □



At Tufts Medical Center, we value our referring physician partners and are committed to doing all we can to make it easy for you to refer your patients here. It is our mission to ensure that they, and you, have a positive experience during the entire referral process. If you have a story to tell about your experience with Tufts Medical Center, please contact us at goodmedicine@tuftsmedicalcenter.org. We would love to include it in a future *Working Together* column.

ROBOTIC COLON AND RECTAL SURGERY

A First in Boston

This page: Bruce Orkin, MD, at the controls of the da Vinci robot, performs a surgery in June. Opposite: the da Vinci operating suite at Tufts Medical Center.



Last August, Bruce A. Orkin, MD, Chief of Colon and Rectal Surgery at Tufts Medical Center, became the first surgeon in Boston to use the da Vinci robot in colon and rectal surgery. By using the robot, Orkin is able to offer appropriate patients who need colon or rectal resections an option that results in less discomfort, bleeding and less time spent in the hospital.

“The real advantage of the robot is when you compare it to laparoscopic surgery, which we’ve been doing for 20 years,” Orkin says. “Robotic surgery gives us a better view and better instrument mobility. Traditional laparoscopic instruments are straight; they don’t angulate, so you can only put them in and out and move them side to side. But robotic instruments function like the wrist — they bend at the end and you can get six degrees of motion. It’s much more intuitive for the surgeon and better approximates how we use our own hands.”

“In other specialties, particularly urology, the robot-assisted approach has taken over certain procedures such as prostatectomy,” he explains. “But it’s been adopted more slowly in colon surgery for similar reasons to the initially slower adoption of laparoscopic surgery, and that’s because minimally invasive approaches are best suited to working in one limited area. Prostate surgery, for example, is done deep in the pelvis, and you can see better and get down there better with robotic arms. It also decreases blood loss and pain, and there’s improved recovery with pretty much the same outcomes as open surgery.”

“But with colon surgery, we often have to work in many parts of the abdomen, so it makes robotic surgery less convenient for some procedures,” he continues. “On the other hand, certain operations benefit from the robotic approach, particularly sigmoid colon resection and low anterior resection of the rectum, and that’s what we’re using it for.”

“It is extremely important to note that we are reducing length of stay,” he adds, noting that in his experience, the average sigmoid colon resection patient goes home in six days after open surgery, in four to five days after laparoscopic surgery, and in just three days after the robotic procedure.

To date, Orkin has performed more than twenty robotic colon and rectal procedures, and he anticipates that he will have performed at least 30 by August, marking the one-year anniversary of this new approach.

“As we started this process, we’ve been fairly selective about who to offer this new approach,” he says, noting that the robotic procedure is best-suited for patients who have had no prior abdominal surgery, and in whom he doesn’t expect to see a lot of adhesions, inflammation or a very large tumor.



“Most patients are candidates for this surgery,” he adds. “And we believe there will be less pain, more rapid recovery and at least an equivalent outcome to traditional laparoscopic or open surgery. And patients like it.”

DOCTOR'S NOTES

For more information, please contact Tufts Medical Center's Division of Colon and Rectal Surgery at 617-636-6190. The division's two — soon to be three — full-time surgeons are accepting referrals from throughout New England.



Mother Infant Research Institute

Our newest arrival



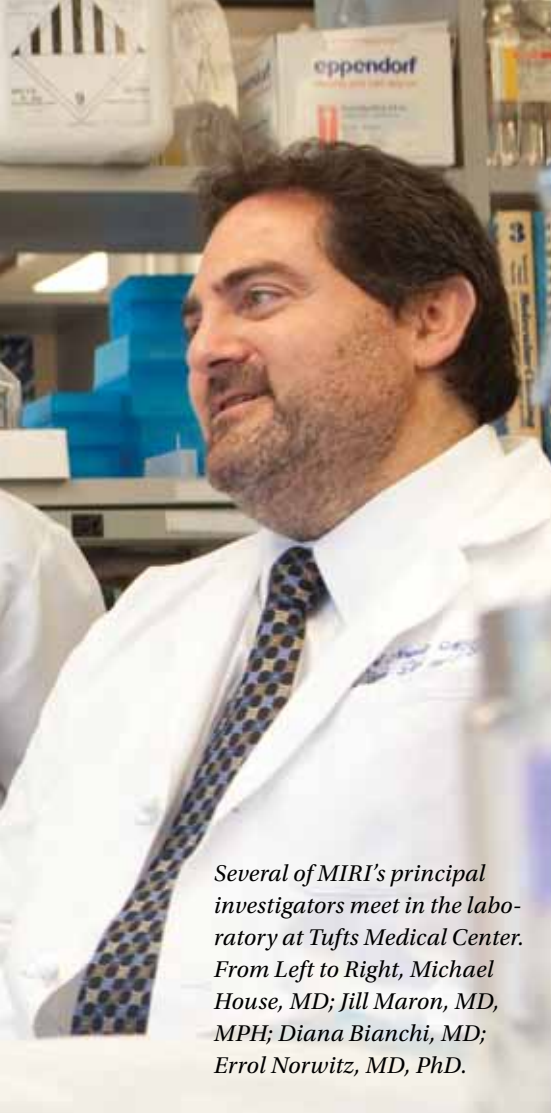
EXPLORING
THE LIFELONG,
AND GENERA-
TIONS LONG,

CONNECTIONS BETWEEN
MOTHERS AND CHILDREN

The biological aspects of the bond between mother and child are now being studied in a uniquely focused approach at the Mother Infant Research Institute (MIRI) at Tufts Medical Center. MIRI, a partnership between Tufts Medical Center and Floating Hospital for Children, combines the knowledge of maternal, neonatal, and pediatric experts to examine how prenatal health of the mother affects the lifelong health of her child, and

what can be done to improve the well-being of both of them.

This is cutting edge, critical research. High-risk pregnancies, pre-term deliveries and low birth weights all seriously impact the overall health and health care costs for millions of people during different stages of life. North America is the continent with the second highest rate of premature birth, second only to Africa. Premature births that occur prior to 37 weeks are not only very expensive



Several of MIRI's principal investigators meet in the laboratory at Tufts Medical Center. From Left to Right, Michael House, MD; Jill Maron, MD, MPH; Diana Bianchi, MD; Errol Norwitz, MD, PhD.

MIRI RESEARCHERS USE A VARIETY OF SCIENTIFIC APPROACHES, including basic science research (using cells in culture or model animal systems), translational research (applying state-of-the-art molecular techniques to human material such as blood or saliva samples), and clinical research (involving direct “hands on” interaction with a pregnant woman or her newborn infant). There are currently six MIRI laboratory groups. Additional investigators are being recruited.

- ▶ **The Bianchi Laboratory** is focused on better understanding fetal functional development using fetal gene expression information to develop new treatments for genetic disorders such as Down syndrome.
- ▶ **The House Laboratory** investigates the biomechanical mechanisms of cervical shortening and insufficiency in pregnancy to treat an important cause of preterm birth, cervical dilation.
- ▶ **The Maron Laboratory's** studies center on premature newborn development, physiology, and pathology through salivary gene expression analyses, with the goals of improving enteral nutrition and shortening hospital stay.
- ▶ **The Norwitz Laboratory** has a number of complementary genetic endocrine research initiatives all aimed at improving the ability of obstetric care providers to predict and prevent preterm birth.
- ▶ **The Sen Laboratory** studies the increasing rate of maternal obesity and its profound consequences on infant and childhood health, with the goal of optimizing maternal dietary recommendations during pregnancy.
- ▶ And finally, **the Wolfberg Laboratory** is researching fetal EKG waveforms as predictors of fetal and newborn injury or disease to improve obstetrical safety, reduce the incidence of cesarean section deliveries, and decrease the incidence of newborn acidosis with the ultimate goal of reducing the incidence of cerebral palsy.

to treat, but can cause major, sometimes long-lasting health problems.

“Recent medical research suggests that events occurring during critical stages of development in the womb impact people throughout their lives, and can influence everything from the risk of diabetes and heart disease, to stroke and inflammatory disorders such as asthma,” says Diana W. Bianchi, MD, founding Executive Director of MIRI and a medical geneticist and neonatologist as well as Vice Chair for Research at Floating Hospital for Children at Tufts Medical Center. “MIRI is revolutionizing medical care by eliminating traditional boundaries between ‘adult’ and ‘newborn’ medicine. We are linking our research and medical practice to most effectively study what

nature already brought together. We are crossing the generation divide.”

MIRI’s current research focuses on three areas of clinical and economic significance — pre-term birth and its complications, adverse effects of maternal obesity, and fetal and neonatal genomic medicine. “The goal of MIRI is to further study these areas, and to ultimately develop recommendations and innovative treatments that will transform the health of women and their children,” says Bianchi.

Bianchi is excited about the significant impact MIRI can make because of its clinical integration and collaborative approach to research. MIRI is the only research institute in the United States that combines pediatrics and obstetrics to investigate how events that occur during pregnancy affect trans-generational

health. The MIRI team also partners with other scientists, institutes and programs at Tufts Medical Center, Floating Hospital, and Tufts University to best utilize the tremendous expertise and skill at the hospital and on the downtown Tufts University Health Sciences campus.

“MIRI is founded on the principle that if we think about a healthy life starting in the uterus, rather than just following birth, we can make changes that will have tremendous benefits — not only for individual patients, but for entire generations,” says Bianchi. “It’s increasingly clear that we can’t separate the time in the womb from time outside the womb, and we need to adjust our approach to research and medicine to reflect that reality.”

TUFTS MEDICAL CENTER'S CANCER CENTER

A Major Resource for Patients and Physicians

Breast Cancer Expert

Jack Erban, MD

Returns to Help

Lead Innovations



TUFTS MEDICAL CENTER'S CANCER CENTER

combines a patient-focused approach with high-end, cutting-edge technology and a robust research enterprise. This multidisciplinary approach has been appealing to a number of new faculty members, and most recently, to one who was already familiar with the fast-growing center.

“The real attraction for me was the longstanding and sincere focus that this medical center has on the care of the patient and family. There’s no finer institution that integrates services around the patient than Tufts Medical Center,” says John K. (Jack) Erban, MD, who returned to Tufts Medical Center as Clinical Director of the Cancer Center and Associate Director for Clinical Science after four years as Clinical Director and Co-Director of the Gillette Center for Breast Cancer at Massachusetts General Hospital’s cancer center.

Erban, a breast cancer specialist, was a faculty member at Tufts MC from 1990 to 2007, serving as Chief of the Division of Hematology/Oncology from 1998 to 2006. He also completed his fellowship training in hematology/oncology at the then Tufts-New England Medical Center, and earned his MD from Tufts University School of Medicine.

Patients seek Erban out because of his international reputation as a breast cancer clinician and clinical trials expert. His major research interests center on clinical trials of novel therapeutics for metastatic and locally advanced breast cancer, with a particular emphasis on inflammatory breast cancer, which has a unique biology and poor prognosis.

While Erban’s clinical and research focus is on breast cancer and hematological malignancies, his administrative focus is to help integrate all the clinical programs of the Cancer Center, working with partners at the Medical Center, Tufts University School of Medicine, community hospital affiliates and community organizations to further develop a comprehensive cancer program for New England.

“Cancer care is a true partnership,” he says. “It can’t all be done within four walls of one building; it requires dedicated and compassionate teamwork where care can be shared and research can be a joint effort. For this to be successful requires us to develop programs with many community oncologists and physicians so the end result is better care for more patients.”

“As we develop relationships with community hospitals including Jordan Hospital and MetroWest Medical Center,

it enables us to provide the most advanced care in the most appropriate setting,” he notes.

Erban also is looking at more ways to blend the Medical Center’s patient-focused care with cutting-edge technology through clinical trials.

“We’re bringing in a number of smart drugs and technologies used to assist patients at every stage of their disease,” he says. “The assets we also bring to the table include major patient supports such as the Neely Center for Clinical Cancer Research and the Neely House.” Both funded by the Cam Neely Foundation for Cancer Care, the clinical research center is helping to bring the latest in oncology research to Tufts MC patients, while the Neely House provides patients and families with a comfortable, home-like setting where they can stay while undergoing cancer treatment.

Erban’s third area of focus is tumor-specific. He explains:

“The tradition at Tufts Medical Center has long been multidisciplinary centers of excellence,” he says. “In fact, Tufts MC was one of the first hospitals in the United States to have a multidisciplinary breast center starting in the 1970s. Our goal is to enlarge and enhance that capability so all types of cancer patients continue to receive care in multispecialty centers that are disease-specific, such as neuro-oncology, head and neck cancers, and so on.”

To that end, he notes, there is substantial recruitment going on in solid tumors and translational research. In addition, he is looking at ways to leverage the clinical talent and expertise that already exists at key partner institutions.

“We want to build programs focused on the best practices for the patient,” he says. “And deliver the best possible care in the most appropriate location for the patient, in the most cost-effective manner. That resonates with everyone.”

Mary Beth Singer, NP (left) and Cate Mullen, RN (right) are two of the highly-respected caregivers on the Tufts Medical Center’s breast cancer treatment team.



DOCTOR'S NOTES

To refer a patient to Tufts Medical Center’s Cancer Center, please call 888-828-9373.



MARK S. LINK, MD

Co-Director, New England Cardiac Arrhythmia Center; Director, Center for the Evaluation of Heart Disease in Athletes; Director, Adult Heart Station; Co-Director, Hypertrophic Cardiomyopathy (HCM) Center

Medical School

Tufts University School of Medicine

Postgraduate Training

Columbia-Presbyterian Medical Center, NY; Tufts Medical Center

Board Certification

Internal Medicine, Cardiovascular Disease, Clinical Cardiac Electrophysiology

Clinical Specialties

Electrophysiology, arrhythmias, heart disease in athletes, sudden death, ablations of supraventricular tachycardia

DOCTOR'S NOTES

To refer a patient to Dr. Link, call 617-636-5902.

New CPR Guidelines

Q & A WITH MARK S. LINK, MD. LINK WAS A MEMBER of the national committee of physicians who recently revised the American Heart Association's Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care, and here he discusses what has changed in the CPR guidelines.

Q: For years people have referred to CPR colloquially as “mouth to mouth” resuscitation. The 2010 guidelines have changed that substantially, haven't they?

A: There's been a seismic shift in how we recommend that bystanders — and professionals, frankly — provide immediate care to someone who has suffered cardiac arrest. The most significant change in the Basic Life Support guidelines is a shift in the resuscitation sequence to “CAB” — compressions, airway and breathing. It used to be rescuers followed an “ABC” sequence, first checking the airway, then providing rescue breaths, and then compressions. In fact, for basic life support providers — those who are not medical professionals — the focus has shifted primarily to chest compressions. The science has shown that chest compressions, which keep the blood circulating through the organs, are the most important thing you can do to increase a patient's chance of survival after a cardiac arrest.

Q: So is the rescue breathing - the “mouth to mouth” part — no longer necessary?

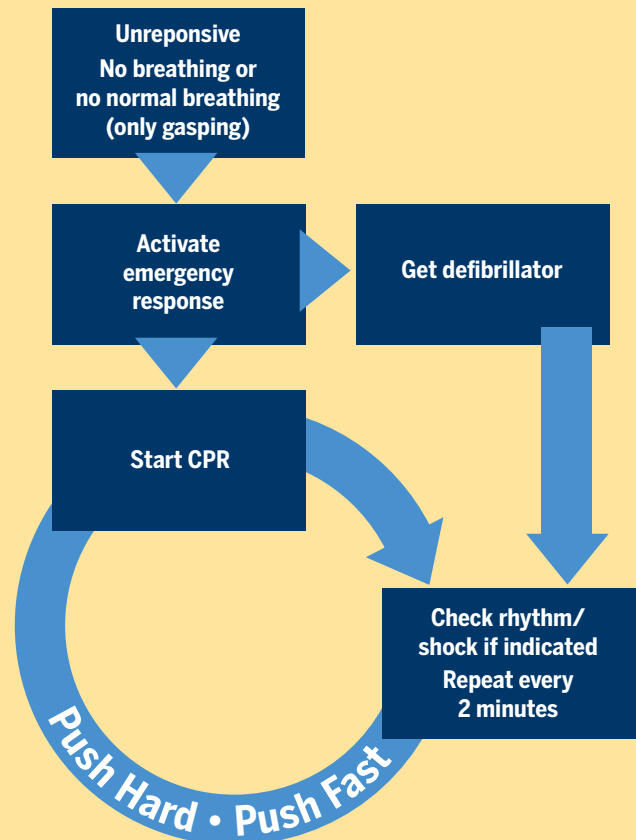
A: It isn't that rescue breathing isn't helpful. Adults who receive training in Basic Life Support (BLS) will learn to give two rescue breaths *after* providing 30 chest compressions. But after reviewing an enormous amount of research, it became apparent that it is much more important to train the public in compressions. First, it's something that nearly everyone would be comfortable doing — many people are not comfortable providing rescue breathing. And ventilation isn't necessary for oxygenation for five to seven minutes after someone suffers cardiac arrest, but organ damage begins quickly if blood is not circulating. Opening the airway and providing what may be unnecessary rescue breaths delays compressions. So particularly in cases where the heart attack was witnessed (so those who saw it know when it happened), we determined it is critical to start compressions right away while someone calls 911. If someone calls 911 about a cardiac arrest patient and they are untrained in basic life support, the dispatcher will instruct them on immediately starting chest compressions only. It's important to note that for pediatric patients, the guidelines remain ABC — checking the airway, providing rescue breaths and then compressions.

Summary of Key Issues and Major Changes

Key issues and major changes for the 2010 AHA Guidelines for CPR and ECC recommendations for lay rescuer adult CPR are the following:

- ▶ The simplified universal adult BLS algorithm has been created.
- ▶ Refinements have been made to recommendations for immediate recognition and activation of the emergency response system based on signs of unresponsiveness, as well as initiation of CPR if the victim is unresponsive with no breathing or no normal breathing (ie, victim is only gasping).
- ▶ “Look, listen, and feel for breathing” has been removed from the algorithm.
- ▶ Continued emphasis has been placed on high-quality CPR (with chest compressions of adequate rate and depth, allowing complete chest recoil after each compression, minimizing interruptions in compressions, and avoiding excessive ventilation).
- ▶ There has been a change in the recommended sequence for the lone rescuer to initiate chest compressions before giving rescue breaths (C-A-B rather than A-B-C). The lone rescuer should begin CPR with 30 compressions rather than 2 ventilations to reduce delay to first compression.
- ▶ Compression rate should be at least 100/min (rather than “approximately” 100/min).
- ▶ Compression depth for adults has been changed from the range of 1½ to 2 inches to at least 2 inches (5 cm).

Simplified Adult BLS Algorithm



Q: Are there any other recommended changes in the guidelines?

A: Yes; when it comes to compressions, they should be at least 2 inches deep at a rate of at least 100 per minute. These are harder and faster than previously recommended, because it was found that rescuers often did not push hard enough and often pushed too slowly. These steps are vital to circulating the blood. Also, if an AED — an automated external defibrillator — is available, it should be used as quickly as possible to try to re-start the heart with as little interruption to compressions as possible. AEDs come with instructions that sixth graders can understand and put into use, so a member of the public should never be afraid to attempt to use one if they are with someone who has had a cardiac arrest.

Q: What's the best way to learn more about the new guidelines?

A: I recommend that everyone take an AHA Basic Life Support class. If you work with children or infants you should take a course that focuses on pediatric BLS. You should also take a new BLS class if it's been more than two years since your last class; studies have shown that the retention for CPR training is only about a year for the old “ABC” sequence and about two years for the new “CAB” sequence. You never know when someone might need your skills to save their life so it's important to make sure the steps are fresh in your mind. □

Where can I find more information? <http://guidelines.ecc.org>

Have Our Physicians Visit You

If you would like to schedule a meeting with any of our physicians or have them to your hospital for grand rounds or other educational sessions, **please contact Physician Liaison Jennifer Roberts at 617-636-1398 or jroberts2@tuftsmedicalcenter.org**

Physicians' Referral Guide

For a copy of our most recent Physicians' Referral Guide, with a complete listing of all our physicians, their specialties, and contact information, **call Jennifer Roberts at 617-636-1398 or email jroberts2@tuftsmedicalcenter.org**

Refer a Patient for Inpatient Care

Use our simple one call service to admit a patient any time – 24 hours a day, 7 days a week – at **877-OK-TUFTS**

Working Together Is Good Medicine is for physicians who are interested in learning more about referring their patients to Tufts Medical Center. We value your partnership with us and are committed to doing all we can to make it easy for you to refer your patients to us. It is our mission to ensure that they, and you, have a positive experience while benefiting from some of the finest care and cutting-edge research available in New England.

Working Together Is Good Medicine is published by Tufts Medical Center. For more information, **contact the Office of Public Affairs and Communications at Tufts Medical Center, 617-636-0200 or goodmedicine@tuftsmedicalcenter.org**

Tufts Medical Center is the principal teaching hospital for Tufts University School of Medicine

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