



Boston MedFlight Spring 2011

Welcome to Boston MedFlight News, where this issue we take a look behind the scenes of our critical care transport service for the communities of Massachusetts and New England. Let your colleagues know that Boston MedFlight News is available as a free subscription – it’s the best way to keep track of news in our organization and the industry.

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Suzanne K. Wedel, MD
Chief Executive Officer/Medical Director



Members of the Boston MedFlight team who participated in the transport of Adam Harte: (from left to right) Communications Specialist **Steve Lanieri**, Boston MedFlight pilot **Dave Masson**, Critical Care Transport Paramedic **Gil Lewis**, Critical Care Transport Nurse **Tammi Wallace-Wood**.

CONTENT

Anatomy of a patient transport 1

Patient story: Adam Harte 3

How to give to Boston MedFlight 4

Boston MedFlight training days help share industry knowledge 5

Boston MedFlight awards and celebrations 6

Anatomy of a patient transport

On Saturday morning, September 26, 2009, 12-year-old Adam Harte set off down a steep hill with his friends and his skateboard, but without his helmet. An hour later, Adam lay badly injured in the emergency room at Southern New Hampshire Medical Center, his skull fractured and his condition critical. Adam's story is told elsewhere in this issue, but here we show how that morning looked from our point of view. We hope it gives you a sense of the system that has successfully transported more than 45,000 critically ill or injured patients for more than 25 years.



9:45 am

Emergency room doctors at Southern New Hampshire Medical Center (SNHMC) begin assessing Adam as he's unloaded from the ambulance. This may be a severe head injury. The

attending physician orders an availability check on Boston MedFlight. Are they flying today, if SNHMC needs them?



9:55 am

Steve Lanieri, Communications Specialist, answers the nurse's call to the Boston MedFlight Communications Center, the logistics hub for all air medical transport around Boston. Steve replies that a New Hampshire air medical program may be able to respond faster; he promises to call and check which service can respond fastest if they're needed.



9:57 am

The Dartmouth-Hitchcock Advanced Response Team (DHART) based in Lebanon and Manchester, New Hampshire is usually a good choice, but due to fog at their location their helicopter is currently unavailable. It's agreed that Boston MedFlight should consider the mission if SNHMC requests this transport in the next half-hour.

Continued...



10:00 am

The attending physician at SNHMC orders the transport: Adam's brain may be bleeding; he needs neuro speciality care now. Steve at Boston MedFlight accepts the mission, verifies Adam's age, weight, name and airway status, but then stops the nurse there -- he needs to get the helicopter into the air. "Operations to Med2, can you accept an undesignated from Southern New Hampshire to Boston?"



10:02 am

Today Dave Masson is piloting Med2 - the Sikorsky 76C++ - and studies the weather for all legs of the transport before he replies: "Med2 to base, we'll accept that at :02, sir." His decision is patient-blind: pilots aren't told the patient's age or other details that could influence their decision about whether it's safe to fly. This morning the forecast looks good, and the pilot and medical crew prepare for takeoff. Steve finishes gathering information from SNHMC and gives the ETA: "They should be with you in 15 minutes."



10:05 am

At the receiving hospital in Boston, an Emergency Department doctor answers the phone and takes details of Adam's condition from Steve: skateboarder, head injury, 12 years old, drugs administered. "Is the patient stable? Do you have any vitals?" Steve says more details will be given directly by the sending physician and gives the ETA: "About 50 minutes, five-oh." The Communications Center will call the receiving hospital two more times, at 25 minutes and 13 minutes pre-arrival, to update the ER and ensure security is ready to escort the patient inside.



10:11 am

As Med2 lifts off from Bedford, the SNHMC emergency room team intubates Adam and speaks with his parents -- Adam needs speciality care; a helicopter is on its way to fly him to Boston.

The Sikorsky S76 is already speeding towards New Hampshire at 175mph when the medical team's pagers buzz: Critical Care Transport Nurse Tammi Wallace-Wood and Critical Care Transport

Paramedic Gil Lewis are given the first details of their patient: 12-year-old, skateboarding accident, head injury, saline administered, will be intubated. Tammi and Gil mentally review the standard head injury protocol they will follow, and they say little as they fly.



10:22 am

Med 2 touches down on the roof of a parking garage near SNHMC -- Boston MedFlight has designated thousands of these safe landing zones across New England -- and the pilot radios back to the Communications Center.



10:35 am

The attending physician is glad to see the familiar blue suits of the Boston MedFlight team: he delivers a full report on Adam's status and medications. Gil and Tammi commence their head injury protocol and meet Adam's parents; mother Kelli is about to take her first helicopter ride. "You'll be fine," says Gil. "Don't look out the window, just stay focused on Adam; we'll seat you where you can hold his hand."

Tammi continues preparing Adam for transport according to their protocol; it's vital to maintain Adam's sedation, pain relief, and mean arterial pressure, and prevent him from having a seizure. Tammi speaks with Kelli and with Adam's father Joe, who is very distressed. Gil offers Joe a map and driving directions to the Boston hospital, but the hospital has already given him this information. Everyone is mindful of the strain on Adam's family.



10:59 am

The medical crew settles Adam into the aircraft and ensures that his mother is secure. Kelli squeezes Adam's hand and listens to Gil's instructions: "If anything goes wrong with Adam during the flight, you need to let us do whatever it takes to turn that situation around," he says. Kelli nods and watches Adam's face: he doesn't move throughout the flight.



11:15 am

In Boston, Med2 touches down on the roof of the receiving hospital. Pilot Dave Masson radios the

Communications Center to confirm his remaining fuel and his intervals: Bedford to New Hampshire took 11 minutes, New Hampshire to Boston was 17 minutes. The medical team rapidly unloads Adam from the helicopter while Dave escorts Kelli safely away: security has opened the doors and Dave will see Kelli to the ER.



11:19 am

The Emergency Department team is ready. Adam is loaded onto a bed and Tammi gives a full report on the accident, current diagnosis, pre-intubation vital signs and medications to the listening nurses, doctors and surgical team. Adam is in the best place for his current condition: soon he'll be prepped for surgery and a simple procedure will relieve the pressure created by his brain bleed.



+ 24 hours

Boston MedFlight's follow-up call to the Boston hospital confirms Adam is recovering well.



+ 48 hours

In the hospital, Adam looks up from his videogame to see two people he doesn't recognize. His father Joe knows them instantly and jumps up to shake their hands: Tammi and Gil have just dropped off another patient at the hospital and wanted to say hello to Adam. Joe is beaming as he poses for a picture with his son and the medical team from Boston MedFlight.

"I remember how good it was to see Adam," Tammi says later. "We could see his father was delighted too for the chance to speak with us and talk about what happened. What makes most of the transports memorable is when we get to see the family again. We like the happy endings!"

Gil agrees. "I was impressed when I saw Adam," he recalls. "He was going to be leaving the hospital and going to rehab within the week. The system itself worked - Adam's was an unfortunate accident but the system is designed to help people like that. Every time I see someone like Adam get discharged home, it's the best part of my day. It's great getting up in the morning knowing I may make a difference in someone's life and doing this job."

Patient story: Adam Harte



The Harte family

Saturday, September 26, 2009 began as a regular day for Adam Harte. He started his morning off doing one of his favorite things: skateboarding with his cousins. He had stayed over at their house in Merrimack, New Hampshire, the night before and was looking forward to skating on some new streets.

Unfortunately, Adam had not brought his helmet with him and was not in the habit of wearing it unless he went to a skate park. He was a good skateboarder and thought that it really wasn't "cool" to wear it just street-skating.

Adam and his cousins skated to a street with a large hill. Looking back, Adam says he knew that it was too steep, but he wanted to show his cousins what a good skateboarder he was. That's all he remembers

from that day. As Adam skated down the hill, the high speed caused his board to go into a speed wobble. Adam couldn't maintain his balance and tumbled to the ground, hitting his head on the pavement. His cousins knew he was in trouble right away and called 911. Then they called Adam's aunt and uncle, who arrived within minutes. Adam was taken by ambulance to Southern New Hampshire Medical Center in Nashua.

An emergency in New Hampshire

When Adam's parents arrived at the emergency room from their home in Littleton, Massachusetts, Adam had already been placed on a ventilator. "Nothing prepares you for the sight of seeing your child unconscious in an emergency room while doctors squeeze a bag to help him breathe," says his mother, Kelli Harte. They were told that Adam had suffered a head injury and that Boston MedFlight had already been called to take him to Boston. Although the extent of Adam's injuries

was not known at the time, he needed to be seen by a pediatric neurologist as soon as possible.

"The thing I remember about the Boston MedFlight crew was how calm they were," says Kelli. "I had asked the staff at the hospital if I was able to go along in the helicopter and was told that that was probably not possible due to capacity. [But] when the pilot arrived he told me that they had brought the big helicopter and that I was able to accompany them. The Boston MedFlight crew was solely focused on Adam's care while I prayed that he had just received a concussion."

Brain bleed revealed

At the Boston hospital, the extent of Adam's injuries was discovered: He had fractured his skull in several places and, as a result, he had an epidural hematoma, which was causing pressure to build in his brain. Adam received immediate surgery to have a piece of his skull removed in order to repair the bleed, and to give his brain room to swell without causing additional damage.

Adam had also broken his clavicle, bruised his lung and had a laceration to his liver, which healed on its own. He spent 12 days in the hospital's pediatric intensive care unit and 21 days at Spaulding Rehabilitation Hospital recovering from his injuries. In December, eleven weeks after his accident, Adam had surgery to replace the piece of bone that was removed from his skull and was finally able to take off the helmet that had been protecting his brain all those weeks. He was able to go back to school in February 2010.

Fully recovered, and helmet-aware

Adam is now a healthy and happy 14-year-old, doing all the things regular teenagers do. Although he can never play contact sports, he has gone back to skateboarding, snowboarding and doing all of the things he loves -- with a helmet. The Harte family now has a saying: "If you don't wear a helmet when you do sports, you get to wear a helmet ALL of the time." Kelli says they try to spread the word that helmets are vitally important and that it is cool to wear one.

"The crew of Boston MedFlight not only saved Adam's life by getting him the care he needed quickly but, more importantly, they saved his quality of life. We can't thank them enough," says Kelli.



How to give to Boston MedFlight

The Boston MedFlight team in action
(Image courtesy of Rich Holcroft)

Every day, our non-profit organization makes a difference in the lives of those who require critical care air and ground transport, connecting them to the life-saving resources that they need. Charitable gifts of all sizes provide Boston MedFlight with the additional resources necessary to continue our focus on excellence in patient care, training and safety. Below are some of the many ways you can give to Boston MedFlight.

Give by mail, phone or online

Checks can be mailed to our Bedford, MA headquarters:

Development Department
Boston MedFlight
Hanscom Air Force Base
Robins St., Hangar 1727
Bedford, MA 01730

Or, call Boston MedFlight during normal business hours to make or discuss a contribution. Call 781-863-2213 and ask for the Development Office.

Alternatively, you can make a credit card donation online by visiting our homepage and clicking the 'Make A Donation' button.

Tribute and memorial gifts

A meaningful way to honor the memory of a friend or loved one is to make a memorial gift in their name. To do so, please provide the name of the person being memorialized when making your donation. If you'd like us to send a notification of your kindness to the bereaved, please provide a name and address and we'll be happy to send a note to them. (The amount of your gift is kept private and we will not solicit the recipient of the note.)

Tribute gifts are a wonderful way to celebrate a special event, holiday or milestone, or to honor a health care provider or member of the Boston MedFlight crew. As with memorial gifts, please provide the honoree's name and address so that we can send a note to announce your gift.

Matching gifts

With a matching gift from your employer, you can sometimes double or even triple your gift! Many employers sponsor matching gift programs and will match charitable contributions made by their employees. Check with your company's human resources or payroll department to see whether it offers a matching gift program.

Gifts of stock

Donating stock is a smart way to give, and is much easier than you might think. Stock gifts often offer several advantages over cash, including reduced or eliminated capital gains tax on stocks that have increased in value. Please call our office at (781)863-2213 and ask for the Development Department to receive stock transfer information.

In-kind gifts

A gift-in-kind receipt can be issued for any tangible gift to Boston MedFlight. For example, if you donated a specific item for an event auction, you would attach an invoice showing its value and you would then receive a tax receipt for that amount.

Host a fundraising event for Boston MedFlight

You and your friends or family can plan and host an event of your own to benefit Boston MedFlight. To get more information about this option, just give us a call.

Bequests and other planned gifts

A gift through your will or other planned gift will not only benefit Boston MedFlight, but will also support your estate tax or financial goals. It is also a reflective process that takes time, careful thought and, above all, provides meaningful outcomes. We invite you to participate in this process and welcome the opportunity to share in your thoughtful journey.

For more information on any of the above, contact our Development Office at (781) 863-2213.

About Us

Boston MedFlight (BMF) is a CAMTS accredited Critical Care Transport service. BMF's mission is to extend the tertiary care services of the major Boston hospitals to the citizens of Massachusetts and New England. The service is available 24 hours a day, seven days a week. As a non-profit organization, BMF transports patients regardless of their ability to pay. BMF is financially supported in part by a consortium of Boston hospitals including Beth Israel Deaconess Medical Center, Boston Medical Center, Brigham and Women's Hospital, Children's Hospital Boston, Massachusetts General Hospital, and Tufts Medical Center. Since 1985, Boston MedFlight has played an integral role as part of the Massachusetts EMS system and the community hospitals of New England. Copyright © 2011, Boston MedFlight. All Rights Reserved

Visit us on the web at:

www.bostonmedflight.org



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Boston MedFlight training days help share industry knowledge

At Boston MedFlight we constantly keep current our knowledge and skills in neonatal, pediatric and adult critical care, so that we can continue to perform well in all circumstances. However, we know that we do not work in a vacuum. Quality patient care is all about teamwork and collaboration between the different parts of the care system.

“Our unique practice and interactions with such a diverse array of health care providers give us great opportunities to be a resource for other providers in the region and for the six hospitals which form our consortium,” says Michael Frakes, Director of Education and Performance at Boston MedFlight.

Structured learning

To that end, our Educational Outreach Program brings structure to how we share skills and knowledge with other health care professionals.

One key element of this program is the Fundamentals of Critical Care Support (FCCS) course. Several times a year we invite other health care providers to come to our headquarters at the Hanscom Air Force Base for two days of training in the essential early management principles of critical care. More recently, we've added the Pediatric FCCS course to our training schedule.

The FCCS course offers an approach to the initial management of critically ill patients for those not formally trained in critical care, such as nurses and nurse practitioners, non-ICU physicians, physician's assistants, paramedics and respiratory therapists. The training offers vital knowledge about the extended care of critically ill patients, as well as the management of sudden patient deterioration. In addition, it assists care-givers in identifying and responding to significant changes

in unstable patients and in being able to prioritize their needs.

Expert instruction

The course was designed by the Society for Critical Care Medicine, a national committee of leading multispecialty critical care educators. Course instructors are primarily Boston MedFlight clinical team members, but can also include critical care and emergency physicians and pediatric intensivists from the Boston-area hospitals.

“Each instructor has several years of clinical experience in their respective fields and many of the Boston MedFlight instructors have taught courses locally, nationally and at institutions of higher learning,” says Mary Arredondo, Education Coordinator. “All are actively involved in state and nationally recognized critical care and EMS professional associations.”

The two-day FCCS course combines interactive lecture presentations with hands-on scenario-based skill stations, where attendees get to experience supervised practice sessions. The course concludes with a written test of participants' knowledge.

“Attendees usually leave the course with a better understanding of the needs of the critically ill patient and a broader spectrum of considerations when treating this population,” says Arredondo. “They are also able to better assimilate their general knowledge of patient care and apply it to the critically ill or injured patient.”

Upcoming courses

More than 130 people attended our courses in 2010. You can read some of their thoughts below. This year we are offering FCCS courses in March, July and December, and Pediatric FCCS courses in February and November. To find out more, download a brochure at Bostonmedflight.org/outreach.

Quotes from some of our course participants in 2010:

“The course has definitely increased my knowledge and understanding.”

“Great class, well presented and relates to my profession and will surely enhance my practice.”

“A lot of great information that will help and is applicable to my daily work.”

“In depth and pertinent core clinical information.”

Boston MedFlight awards and celebrations

The Boston MedFlight team celebrated a number of milestones, awards and appointments in recent months. We are proud to recognize these achievements here, and the role played by the whole team in supporting the pursuit of individual excellence.

Boston MedFlight Chief Executive Officer and Medical Director Suzanne Wedel, MD, was recently awarded the Mark E. Weinstein Award, in recognition of an outstanding contribution to the Region IV EMS System. Also, Dr. Wedel was recently appointed to the Board of Directors of

CAMTS (Commission on Accreditation of Medical Transport Systems).

Below are details of more awards and appointments at Boston MedFlight in recent months.



Captain **Seth Zamenksi** and Captain **Lynda Colarossi** recently received Era Safety Awards for their skilled handling of in-flight emergencies. Both pilots experienced engine malfunctions requiring single engine recoveries. Era recognized their superior skill and decision-making in these critical situations.

Boston MedFlight Communications Technician **Justin Brown** was recently appointed to the National Board of Communication Specialists.



Michael Frakes, Critical Care Transport Nurse and Director of Education, Training & Performance Improvement at Boston MedFlight, has been appointed President of the ASTNA (Air & Surface Transport Nurses Association).



Bob Palmer, Critical Care Transport Specialist, recently celebrated 25 years of service at Boston MedFlight. The team presented Bob with a model of the Sikorsky S76C++ to mark the occasion.