9/11 New York City: Canadians lend a hand

Andrew Travers, MD;* Kathryn Irwin, MD;* Andy Anton, MD;† Jim Christenson, MD;

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Le 11 septembre 2001, les auteurs participaient à une rencontre sur des essais cliniques à New York. De concert avec leurs collègues chercheurs, ils ont participé à l'opération de sauvetage pendant les 16 premières heures suivant le pire acte de terrorisme de l'histoire moderne. Le présent article résume leur expérience.

September 11 —Just another Autumn morning

In early September, we were in New York City for a meeting of the steering committee for the Public Access Defibrillation (PAD) Trial, a 24-city North American clinical trial examining outcomes related to cardiopulmonary resuscitation by bystanders and early use of automated external defibrillators. Tuesday, Sept. 11, was the last day of the meeting.

0830 to 1100: Disaster strikes

Our meeting was being held at the Brooklyn Marriott, just a block from the east entrance to the Brooklyn Bridge and a few kilometres from the Manhattan financial district. We started on schedule at 0830 and were completely oblivious to the crash of American Airlines Flight 11 into the north tower of the World Trade Center (WTC) at 0845 and the subsequent crash of United Airlines Flight 175 into the south tower at 0903.

However, at 0925 hotel officials asked us to evacuate the building, saying simply that 2 airplanes had crashed into the WTC. Over the next half hour, through conversations on the street and CNN updates, we started to grasp the enormity of the situation. Some meeting participants walked down to a promenade to witness the fires in the towers. Others retrieved passports from hotel rooms and made calls to their families. Soon, though, many of us reconvened in the hotel lobby, where TV monitors were tuned to news broadcasts. We were further shocked by the

crash of American Airlines Flight 77 into the Pentagon at 0943. At 1005 some watched the collapse of the south tower on the TV monitors, while others witnessed it live from the nearby promenade. In the minutes that followed we learned of the crash of United Airlines Flight 93 in Somerset County, Pennsylvania, at 1010, and saw the collapse of the north tower at 1028.

This rapid series of events brought on a huge array of feelings: shock, vulnerability, fear — a fear heightened by reports of other hijacked aircraft still in the air. Yet we also desired to use our knowledge and skills to help the victims of the disaster.

Instinctively, we gathered in the conference room, where we started to create informal teams, even though there was as yet no formal structure within which we could function. We knew that in a typical disaster response, relief is based on a series of "quick and dirty" assessments and that trained health care professionals would be required to make such assessments. Here, there were potentially tens of thousands of casualties. Our group consisted of fewer than a hundred people, hoping to assist in the enormous medical response that was anticipated. Fortunately, Dr. Lynne Richardson, PAD principal investigator for NYC, was available to provide both clinical and administrative links to the official disaster response.

1100: Team 1, Brooklyn Bridge

The Brooklyn Bridge Team was soon helping to direct am-

*Division of Emergency Medicine, University of Alberta, Edmonton, AB; †Calgary Emergency Medical Services, Calgary, AB; ‡Department of Emergency Medicine, St. Paul Hospital, Vancouver, BC

bulatory patients to appropriate care. One of the authors (J.C.) and several other PAD members worked with personnel from NYC Emergency Medical Services (EMS) and the New York Police Department (NYPD) at the base of the Brooklyn Bridge. By this time, thousands of people were streaming across the bridge, the first available exit from lower Manhattan. The triage team directed these "walking wounded," who had a variety of inhalational and soft-tissue injuries, to ambulances parked nearby or to the Brooklyn Marriott, where the second PAD team was situated.

1120: Team 2, Brooklyn Marriott

The Marriott team set about providing simple medical therapy, shelter and nutrition and organizing orderly deployment of patients to city hospitals. We anticipated that any work we could do with low-acuity patients at the hotel would lessen the burden on local hospitals. With the assistance of the Marriott staff and about 30 PAD volunteers, the hotel was converted into a multitiered treatment area. On the street in the front of the hotel, water and towels were offered to the dust-covered people walking past. Phones were cleared for public use, and rooms were made available for anyone requiring a place to stay. Cots were set up in one conference room, where patients were examined and treated, and in adjacent rooms chairs, food and televisions were available – all so that people could rest, learn more about what was going on and try to link up with their families. We were pleased, if somewhat surprised, that despite the fact that we were "foreign" physicians, our American colleagues never questioned our qualifications. Canadian PAD project coordinators were able to negotiate with local pharmacies for free supplies of bandages, topical treatments for wounds and irrigation solutions. However, the only medications available were those obtained from our own toiletry bags (such as ventolin in metered dose inhalers). Ultimately, the Marriott served as a shelter for stranded New Yorkers, a treatment facility for the walking wounded and a blood donation centre.

1130: Teams 3 and 4, Hospital Outreach and Pace University

The Hospital Outreach Team assisted more formally in a medical setting. One of the authors (A.A.) and another Canadian (Dr. Karen Keats) were sent to the Long Island College Community Hospital, where they became "instant attending physicians," helping the existing emergency staff treat patients transported in from Ground Zero.

Later in the afternoon, 8 PAD members were taken to

Pace University in Manhattan to assist in a secondary triage hospital in the university's foyer. Artificial lights, generators and mountains of equipment were set up, an army of rescue workers was brought in, and dozens of ambulances were ready to transfer patients to hospitals for definitive care. But the anticipated influx of patients never materialized, and the setting felt eerily like a movie set rather than a real triage hospital.

1200: Team 5, Ground Zero

The Ground Zero Team was designated to provide medical support closer to the point where victims were being extricated and rescuers injured. A total of 22 PAD members (including Canadians A.T., K.I., Sarah Pennington, RN, of Vancouver, and Stephanie McDonald, EMT, of Edmonton) boarded a special bus laden with first-aid supplies for the trip into Manhattan. The bus, escorted by NYPD vehicles, made its way through a series of security checks to the northern aspect of Ground Zero.

Along the way, we negotiated a contract of safety with each other: no one was to be left alone at any time, work would be conducted by teams of 2 or 3 people, and we would focus on our role of providing medical care, not search and rescue. Together, we reviewed the principles of the tough work that is disaster triage and prepared simple masks from towels taken from the hotel. We were given Fire Department of New York (FDNY) shirts so that we would be recognized as participants in the response team, but we had no other protective gear. In fact, we never saw anyone in full NBC (nuclear, biological, chemical) protective gear, and we ourselves felt vulnerable trying to practise universal precautions with a limited supply of gloves and our makeshift masks. The silence of the streets, that white dust covering everything, and the sight of so many emergency vehicles destroyed by falling debris and ignited fuel added to our complete uncertainty of what was in store.

On arrival at Ground Zero, we were completely unprepared for its sights and sounds. The destruction was overwhelming, and we shared a sense of disbelief, even though we were now deeply involved. The inherent physical instability of the ruins precluded our team from setting up nearby, so we were redeployed to a large outdoor promenade a few blocks to the north. The PAD group organized the location, coordinating the arrival of supplies from Manhattan hospitals and preparing the site for treatment of patients. Although supplies were limited, we improvised to create a truly impressive triage and acute care area. About 20 ambulances with crews from local EMS agencies were parked nearby, ready to accept patients. Ten critical care

beds were fashioned from spine boards on portable tables. This resuscitation area was run by the PAD emergency physicians, while PAD cardiologists and other non-PAD physicians (plastic and orthopedic surgeons who arrived on foot) ran the ambulatory section, which consisted of 10 "stretchers" and 20 chairs. Collaboration among all these specialties was excellent.

Search and rescue teams were being organized in our area, but were held back because of the instability of 7 WTC, located in direct view a few blocks to the south. Late in the afternoon, the 47 stories of 7 WTC collapsed in a matter of a few seconds. Despite the chaos that followed, the staging area remained in place and the wait for primary survivors continued as we treated the secondary victims: the rescuers and the walking wounded.

2300: The heart of New York at Ground Zero

At Ground Zero, physicians, crisis and social workers, and representatives from a variety of faiths participated in the informal debriefings. Portable radios gave us news of the national and international responses to the attack, but hearing firsthand from the NYC EMS and FDNY of their fallen and missing comrades was far more immediate. Given what had happened and what we had experienced—the noise, the dust, the smoke, the sheer human effort of the response—the atmosphere was surreal. In our eyes, the most moving case was a young man wandering through our staging area, politely asking for assistance in locating his mother, who was still missing.

Many of us were privileged to witness the graciousness of New Yorkers amidst the turmoil. The food they brought to the upper perimeter of the staging area was added to food donated by local businesses and restaurants to create a remarkable outdoor nutrition area. Concerns about performing medical procedures at night, especially in all that dust and smoke, were remedied by celebrities, who arranged the necessary lighting. Cheers and applause accompanied every small accomplishment. At no time did anyone on the team feel panicked or ask "Why did this happen?" We weren't ignoring the larger context — rather, the priorities of the medical work focused our attention.

2400: The teams regroup

Eventually, search and rescue operations were discontinued for the night. A skeleton crew of local nurses was left to run the medical area, and the PAD group was escorted back to the Marriott. We had mixed feelings about leaving, but it was apparent that the local, state, national and international resources that were arriving were well equipped for the work required. We felt fortunate to share our bus out of Manhattan with an exhausted platoon of FDNY firefighters.

Back at the Marriott, the 5 PAD teams gathered informally to compare notes. At a professional level, we determined that the most common medical conditions seen that day included inhalational irritation and bronchospasm, corneal injuries, limb fractures, minor soft-tissue injuries and acute coronary syndrome, which occurred in a few exhausted rescuers. At a personal level, we were deeply frustrated that there had been no primary survivors for us to treat, and we hoped that people would soon be found alive in the rubble.

The return home

On Sept. 12, the PAD steering committee dispersed but kept in touch by email and by phone over the next several days. Airport closures, limited availability of car rentals and bomb threats meant that the trip home took up to 6 days. But despite the frustrations, setting foot on Canadian soil was incredibly uplifting and reassuring.

Lessons learned

We, the authors of this article, witnessed firsthand the results of the most devastating terrorist attack in modern history. Now, separated from Sept. 11 by time and from New York City by distance, we can recognize the lessons, both professional and personal, that we learned.

On a clinical level, the 5 PAD teams complemented the city's disaster response in its early phase. We examined patients, administered oxygen and ventolin, splinted fractures, and provided food, analgesics and wound care — but we believe that our biggest contribution was simply adding another piece to the mosaic of the NYC disaster response.

In our communities, we have been re-evaluating our disaster response systems, asking ourselves whether we would be prepared for a similar disaster. Resources aside, would we show the human spirit that was so evident in New York? Collectively, we believe that we would.

On a personal level, each of us felt privileged to witness the power of family, friends, community and colleagues during the attacks and in the weeks that followed. The profound impact of the events has led us all to introspection and a restructuring of our personal priorities.

Correspondence to: Dr. Andrew H. Travers, Division of Emergency Medicine, University of Alberta, 1G1 Walter Mckenzie Centre, 8440 – 112 St., Edmonton AB T6G 2B7; fax 780 407-3314, ahtravers@powersurfr.com