Experience
Expérience

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It was a dark and stormy night . . .

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During the restful time off over the holidays, I had forgotten I would be on call the weekend of Jan. 9. Reminded of my upcoming duties as the week started, I had thought the work would be a piece of cake. I would be covering the internal medicine consultation service without any simultaneous duties on the clinical teaching unit.

These naïve reflections came back to me on Friday morning, Jan. 9, as I struggled to my car. It was parked a block from my house so that it couldn’t be trapped by falling ice, tree branches and electrical wires, as so many others had been since the “ice storm of the century” started 4 days earlier. Some piece of cake.

I settled my overnight bag on the front seat and began the now familiar ritual of heating the car and hacking away at the night’s accumulation of ice. I then carefully negotiated the blacked-out intersections and made my way over the Champlain Bridge to Montreal’s South Shore.

Where would it end?

My hospital, the Charles LeMoyne in the Montreal suburb of Greenfield Park, had implemented emergency measures on the afternoon of Jan. 6 and this had meant accelerated discharges, cancellation of elective surgery and daily meetings of all department heads and managers. There seemed no end to the freezing rain that would last, on and off, for 5 days, and there was little optimism about restarting normal hospital activities before the following week. We seemed caught in a downward spiral. Where would it end?

On my desk the daily emergency bulletin greeted me with an ever lengthening list of problems, both internal and external. The emergency room was clogged with patients with fractures, carbon monoxide poisoning and exacerbation of COPD. The roads were increasingly unsafe and ambulance attendants were more and more reluctant to transfer patients from our crowded wards to Montreal. Many nearby towns were without electricity, there was little hope of a quick fix and the power supply to the hospital was fragile — we were being fed by the town’s emergency line. Staff fatigue was already a problem and shortages were certain because an end to the emergency was nowhere in sight.

By mid-morning on Jan. 9 ferocious lightning storms were adding to the already tense atmosphere. Thunder roared down the ventilation pipes to the very bowels of the hospital and a final onslaught of freezing rain brought what was left of our electrical system crashing down. By 2 pm all power was gone and we became dependent on two 30-year old generators.

The emergency committee set up in the “bunker” — in calmer times it was known as the director general’s office — and we learned that hydro pylons were crumbling like dominos along the South Shore. All this startling information was being passed to us during our daily briefing sessions. Another meeting was scheduled for the evening, and no one would be allowed to leave the hospital that night.

As I continued with my clinical duties, I realized that we were being stripped of our readily available and familiar tools. All lab tests were rationed, as were x-rays; CT scans were out of the question and doing an ECG in a
ward meant moving the patient’s bed close to an outlet that had generator-supplied electricity. The ultimate challenge was examining patients in their darkened rooms. How many stigmata of endocarditis could I find by flashlight in a patient with multiple positive blood cultures? I chuckled to myself. Would this be a fair question for the Royal College exams?

Whenever comfort was needed, it could be found in the ICU, CCU and Emergency Room, which remained brightly lit — final bastions against the encroaching blackness. In other parts of the hospital shelters were being set up for all the nursing, support and medical staff and their children, and for peritoneal dialysis patients who were no longer able to do their daily exchanges at home because of frigid fluids. We also made room for the hemodialysis patients who were becoming hyperkalemic and overloaded with fluid because of unsuitable diets in the region’s emergency shelters.

The evening briefing session was held in the flashlight-lit main conference room. The news was grim. Our director of professional services (DPS), whose particular interest in disaster management had served us so well, looked quite unsettled. He explained that the situation, both internally and externally, was unprecedented. The entire South Shore was in the dark — this area has about 500 000 residents — and another 2.5 million people were blacked out on the island of Montreal and in the north. It was not clear whether the hydro system was still disintegrating or had stabilized at this crippled level.

Utterly and completely alone

To make matters even worse, the DPS told us that all major highways leading to the hospital were closed as were all bridges. The only link to Montreal was through the Louis Hippolyte Lafontaine Tunnel, and this was unreachable because of the roads. We were utterly and completely alone.

The ease and speed with which our everyday world seemed to be unravelling was quite breathtaking. Unbelievably, this modern 450-bed general hospital, which is 1 of Quebec’s 4 trauma centres, was weaving on its feet, bracing for the next blow.

Fortunately, there were a few bits of good news. The generators seemed to be functioning well and even though our diesel supply would only last 20 hours, there was hope of jury-rigging some kind of pipeline from a long-forgotten 20 000-gallon tank of heating fuel to the generators. We also learned that, should the need arise, the army would probably be able to airlift some of our patients to Trois-Rivières or Quebec City come daybreak; a makeshift heliport was being readied in the parking lot. Finally, we were told that 2 ham-radio operators had been brought into the “bunker” so that even if the telephones went down we would not be out of touch with the outside world.

At the end of the meeting the DPS took me aside and emphasized that the disaster had reached a stage where a significant death toll was to be expected. Inside the hospital this meant we had to be prepared to triage the most vulnerable patients. The hospital’s limited resources would have to be saved for those who could be expected to survive.

For the first time I truly feared what the night would bring. Our intensivist had already extubated all patients for whom this was safe; the only ones still intubated were extremely ill with a poor prognosis. We worried that a multi-casualty calamity such as an apartment fire, road accident or mass poisoning would catapult us into some truly apocalyptic nightmare. Dreading a generator malfunction, we made certain all staff on call had a flashlight close at hand.

At the same time community shelters were running into shortages of their own. It became clear that if we were to avoid a landslide of patients in the ER the hospital would have to send medicines and supplies into the field, in particular inhalers for all compressor-dependent COPDers.

A most eerie sight

By 10 pm it seemed we could do little but wait, so I decided to venture out to my car to retrieve my overnight bag. I had left it behind that morning, still clinging to the faint hope that things would get better and that I would be going home for the night. A most eerie sight greeted me. The South Shore, which in normal times is brightly lit all the way to the ski slopes of Mount St-Bruno, was an ocean of inky blackness in which only a few car headlights bobbed.

Looking toward Montreal, the scene was even more
striking. The normal stubby forest of skyscrapers had been amputated, and all that was left was a sickly orange hue over a ghostly city. I quickly extricated my things from the ice-caked car and went back to the main building, narrowly escaping a large chunk of ice that fell from the ambulance garage. I retired to an army cot set up in a conference room and slept fitfully. I dreamed I was on a beach, about to be swept away by a tidal wave.

The next day dawned grey and brought a final spittle of ice; it appeared the storm’s fury was finally spent. The damage to Hydro-Québec seemed to have plateaued, but it was so severe there were no reasonable estimates of when power would be restored at the Charles LeMoyne. We knew it would not be restored in the surrounding area for days, but Hydro-Québec was trying to connect us through some new, circuitous cable. The roads were being cleared of debris but the bridges were still too dangerous to open. With the opening of the roads came a flood of ambulances — about 90 that day. The day-surgery area had been turned into a holding unit for the ER several days earlier, but by now it was becoming obvious that we would have to reopen one of the recently closed wards.

As the day wore on, we all became accustomed to the limitations of life with generators. Some of the stress eased a bit, although there were constant reminders that all was far from well. The water pressure started to fall as St-Lambert’s water pumps began to overheat. All of the evacuated houses had left a trickle of water dripping to prevent frozen pipes and this was proving to be a problem for the crippled system. At the hospital we filled containers and sinks with water, and hoped we would not need it. There was some concern about our ability to continue dialysing patients because of the dropping water pressure. At mid-day a fire truck and several army trucks showed up to de-ice the buildings, and all patients had to be moved away from the windows in case of a wayward ice bomb.

Sunday morning

After a night spent in the relative comfort of a real bed in an unheated room where I had been lulled by the steady hum of the generators, Sunday morning began with a call to my husband. He told me that a radio station had announced we had power. I jiggled the light switch in my room. No light. As I hung up the phone, one of the generator’s chokes on some bubbles in the diesel fuel, plunging part of the hospital into darkness. My colleague ran to the ICU while I dashed to the CCU. The previous night we had admitted a man who had a myocardial infarct. Thrombolysis had been successful, but the patient’s chest pains had resumed and he was receiving intravenous nitroglycerin. He was clearly the most unstable of the 10 patients in the CCU and required an urgent transfer. A woman who was 27 weeks’ pregnant and bleeding and contracting, as well as 2 young, intubated patients, would also have to go.

By this time Montreal was slowly beginning to recover, although many hospitals there were still relying on generators. The army stepped in with helicopters and ambulances, and our patients were evacuated MASH style. To add to the drama, the fire alarm went and its wail, along with the sound from the army choppers, frightened many into thinking that the entire hospital was being evacuated. We had much to worry about, but also much to be thankful for. This could have happened Friday night.

A colleague astutely suggested that we warn nursing stations to feed all diabetic patients first, and not to correct with a sliding scale any capillary sugar levels without knowing that a meal tray had actually arrived on the floor. Delivering food was quite a challenge, requiring a human chain in the stairwell to pass things up and down.

By noon our generator was fixed. We rejoiced and were grateful for power that had seemed so insufficient just a few hours ago. We learned that the army had finally managed to deliver a long-awaited third generator as a backup, and it would be hooked up by 8 pm. We rejoiced. This seemed downright luxurious!

Even though the bridges were slowly being reopened to traffic, I decided to spend my last night of call at the hospital. Returning to it over treacherous roads in the dead of night if there was an emergency would push my luck.

Finally, power

At 8 the next morning Hydro-Québec finally succeeded in restoring power to the Charles LeMoyne. It was clear that we would now shift to a different phase of this disaster. Power would remain out for days to weeks in the surrounding towns, and we would undoubtedly face a very long recovery period. Many challenges lay ahead.

As I drove home that Monday morning in the bright, cold sunshine, I reflected on all the stresses the weekend had brought. It had been particularly difficult to cope because everyone had been touched in a very personal way by the ice storm. Every staff member who had worked so hard in the hospital had at the same time been worried about what was happening to their loved ones.

It was particularly gratifying that out of a feeling of helplessness and fear came a wonderful sense of cooperation and common purpose. It had infected everyone from the kitchen staff to the doctors, nurses, residents and the great guys who set up the cots, and also the administrators, who kept us focused on the task at hand.

Everyone worked to keep our patients safe. The fact we succeeded is the thing most of us from the Charles LeMoyne will remember about Ice Storm ’98.