WILDERNESS ESSAY

Working in Canada’s Subarctic: Circumpolar Medicine

Much has been written in the medical literature regarding arctic and subarctic medical care, which mainly concerns well-equipped expeditions for scientific exploration or commercial concerns.¹ A medical practice in the Canadian North presents some unique medical challenges that differ from those encountered in other areas and may be regarded as another type of “wilderness medicine.”

Circumpolar medicine includes the effects of the northern latitudes on populations living in many countries, such as Russia, Finland, Norway, Greenland, and Canada, and the state of Alaska. These regions share the same environmental problems—extremely cold, dark winters and isolation—but have different sociopolitical situations. Indigenous people living in the North (American, Inuit, Sami, and Mongolian groups) differ in their ethnic backgrounds and economic status in their home countries. The Canadian Circumpolar Medical Society looks at Aboriginal circumpolar health and is part of the International Union for Circumpolar Health, which includes member organizations in the United States, Greenland, Nordic society, and the Siberian Branch of the Russian Academy of Medical Sciences. In addition to their published journal sent to members, they host a meeting in one of the International Union countries every 3 years.

Servicing communities permanently located in cold climates involves different strategies compared with those used for expeditions or enterprises that are set up temporarily.² Expeditions are usually well funded and have provisions imported for their full duration. Participants are also screened for fitness and compatibility in order to avoid foreseeable difficulties. In contrast, civilian populations consist of a large group of people of varying ages and with unique medical concerns. I have found that many of the indigenous people of Manitoba’s north are afflicted with the chronic diseases that affect other impoverished people, namely, diabetes, chronic renal failure, and tuberculosis. In accepting a position “up North,” practitioners should be knowledgeable in obstetrics, general practice, emergency medicine, pediatrics, geriatrics, and infectious diseases, among other disciplines. Situations often arise that necessitate evacuations to larger centers.

My experience working in Churchill, Manitoba, highlights some of these challenges. There are other Northern communities with even greater extremes of weather and smaller budgets, but Churchill is special for many reasons. It has a local population of 600 people and is a secondary referral center for another 8000 residents of Nunavut, who live in smaller communities on Hudson Bay. Northern medical problems and the logistics of dealing with remote medical events are part of a practice in Churchill.

Churchill is situated at the delta of the Churchill River where it empties into Hudson Bay. Historically, trading posts were established nearby during the fur trade, and there were conflicts between the English and French colonial powers. More recently, a military base was established but has long since been abandoned. Today, the port of Churchill is still used for trade when the ice clears from the Bay. Railways transport grain from southern Manitoba for shipping to eastern Canada.

As a physician working in the emergency department and town clinic, I meet interesting patients. Different waves of tourists arrive at different times from all over the world, and tourism remains an important industry. Churchill is best known as the polar bear capital of the world, for the town is situated along the migratory route of the bears. Bear sightings occur dangerously close to town. Despite colorful stories, no in-town mortalities have been recorded, though a bear attacked 1 woman in 2004. Encounters will continue as people encroach on the animal’s territory. For example, my receptionist, Shelly, had been out late one night, and on her walk home she noticed that one of the new “large white rocks” the town had recently erected seemed to be moving in her lane on the street. She realized it was a polar bear, but instead of quietly backing away she turned and ran. Despite breaking the rules of common “bear sense,” she escaped unharmed.

Besides observing bears, other tourist activities include bird watching beginning in the spring, botany, whale watching in July and August, and viewing the aurora borealis in the winter. The Churchill population may double or triple, with international visitors arriving in the summer and especially the fall. The permanent population consists of Caucasians of European descent and Cree and Dene people, with southerners coming for employment during the tourist seasons.