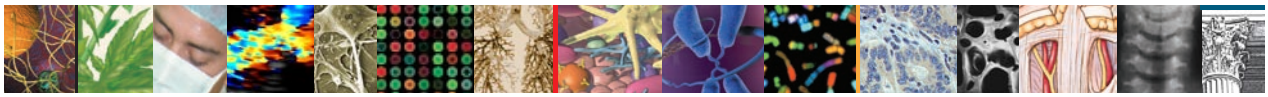

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Perspective

Surgeons' Dispatch from Cange, Haiti

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The roosters were curiously quiet. As daily aftershocks continued to rock Haiti, the usual chatter of animals in this rural clinic in Cange was replaced by the roar of cars and ambulances rushing in from Port-au-Prince. With most of the hospitals in the capital city devastated by the January 12 earthquake, the once-remote hospital that was set up to serve the rural poor had become a destination of choice for people injured in the capital.

Thanks to the work of Boston-based Partners in Health (PIH) and its Haitian sister organization, Zanmi Lasante (ZL), medical care in Haiti has improved over the past 25 years. The Cange free clinic, which is 58 km from Port-au-Prince, opened in the mid-1980s, originally focused on AIDS but has since evolved into a comprehensive hospital complex, which is now linked to a network of 10 hospitals and clinics in the region. An operating room was added in 1996, and surgeons from around the world began working with Haitian surgeons to develop surgical care, piggybacking on the existing medical care infrastructure.[1-3]

This infrastructure, which remained largely intact after the earthquake, allowed surgical teams to respond immediately, while operating rooms in Port-au-Prince were incapacitated. As of January 25, a total of 220 patients who had been injured in the earthquake had checked into the Cange hospital. The hospital continues to receive additional patients each day despite its remote location. The local chapel and school have been converted into inpatient wards, but the hospital still bulges with patients sleeping in walkways, in hallways, and on patios. Additional surgical staff members were rapidly mobilized. We arrived on January 16 as part of a team that included three surgeons (one orthopedic and two plastic) to support the two general surgeons (one Haitian and one American) and local staff who were on site at the time of the quake.

It took us several days to realize that what works for trauma in the United States also works in Haiti. A system of triage, rounding, protocols, and sign-out gradually emerged from the chaos. Most of the patients who managed to get to Cange needed acute surgical care for crush injuries, fractured limbs, compartment syndromes, and massive wounds. In three operating rooms, visiting U.S. surgeons worked closely with Haitian colleagues and performed 122 operations in the first 9 days, including amputations, fasciotomies, external fixation of frac-

tures, wound closures and débridements, and exploratory laparotomies. Additional stations for laceration repair, wound care, and casting under ketamine sedation were set up in the chapel.

But surgical teams are only the first phase of lifesaving interventions. We began to treat some patients for deep venous thrombosis in the days after their surgery, and some patients died of what seemed likely to be pulmonary emboli, prompting us to initiate heparin prophylaxis using standard protocols.[4] Later in the week, patients began having renal failure from rhabdomyolysis, so we opened dialysis centers. By the end of the week, the team had developed a rhythm.

Over the past 25 years, PIH and ZL have developed a system of "accompaniment" and currently employ more than 2000 accompagnateurs, or community health workers, hired because of their understanding of local people and communities. Accompagnateurs are trained to administer medications, monitor patients for complications or adverse reactions to medications, answer questions about medical conditions, and help patients seek medical care.[5] These workers will need to be trained in diagnosing and monitoring complications of surgery and in administering basic wound care, and PIH and ZL will have to make a long-term commitment to "accompanying" patients who received injuries necessitating surgery. Patients who have undergone amputations must be taught to care for themselves independently so that, with support, they can remain active members of their community.

There will be no quick fix for the enormous number of injuries inflicted by this disaster. Months and probably years of ongoing surgical care will be necessary to prevent death and minimize disability. For the first few weeks, health care providers will have to focus on acute care — amputations, débridements, and fracture reductions. Wound care and wound closure will follow. The fitting of prostheses and rehabilitation will go on for years to come. Meanwhile, though the earthquake has dramatically changed the landscape in Haiti, day-to-day surgical needs that are unrelated to the earthquake will continue to require attention. In addition to the trauma cases in Cange, routine cases continue to be slipped into the surgical schedule — lymph-node biopsies for Hodgkin's disease, incarcerated hernias, tumor excisions.

If there is a silver lining in this event, it is that surgical care in Haiti will never be the same. Hundreds of nurses, surgeons, and anesthesiologists have been introduced to a country in need. Although medical care providers may have blazed the trails of global health, surgeons are following. Haiti will not be forgotten.

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