

MCH Trauma Program is ready



Remember to gear up this summer to stay safe. Above, three young boys show off their summer accessories, which include helmets, knee and elbow pads, and wrist guards.

With the warm weather, every year children and teenagers emerge from their winter hibernation. And as always, ready on the sidelines is the Montreal Children's Hospital (MCH) of the McGill University Health Centre (MUHC) Trauma Program, which goes into high gear to prepare for the escalation in the number of injuries sustained while playing in playgrounds, swimming pools, backyards, or while doing wheel sports or involved in motor vehicle accidents.

"Trauma is the leading cause of death and disability in the pediatric and adolescent population," says Debbie Friedman, who heads the MCH highly esteemed Trauma Program. "So we're talking about a high volume of patients with needs that can be very complex."

The MCH Trauma Program, which is being used as a model in many other hospitals and has also attracted international attention, has a dual designation as both a pediatric and adoles-

cent tertiary-care trauma centre, and a neurotrauma centre of expertise. This expertise includes medical, surgical, nursing, rehabilitation, and psychosocial trauma management for all types and severity of injuries.

The Program's team of specialists and services work together from the time the child arrives in the Emergency Department through to the stages of recovery to re-integration into school or transfer to an appropriate rehabilitation centre or other community resource. Every year the Children's ER treats roughly 14-thousand trauma patients, over 700 of whom require the intensive involvement of the Trauma Program.

According to Friedman, the Trauma Program tailors care so that it is age-appropriate, an effort that starts even before the patient arrives at the hospital.

"We work closely with the pre-hospital system to relay how important it is for children and adolescents to be brought to a children's trauma facility instead of a regional centre,"

says Friedman. "If the patient is stable we really believe taking an extra ten minutes to get them here could make all the difference later."

Even within the hospital there is care taken to consider the patient's age at all times, where many of the treatments, such as physiotherapy, occupational therapy, speech therapy, audiology, childlife, and psychology, are administered through activities that the child can relate to. The approach with an adolescent is very different than with a five-year-old.

At the MCH, treating a trauma case also means treating parents and siblings who may be psychologically traumatized or dealing with a whole range of emotions such as guilt, or anger over the cause of the accident.

"We are dealing with children, so they have their whole lives ahead of them," says Friedman. "Our job is to intervene in a timely fashion, with the highest level of expertise, to give them the best chance at living that life."

—Kate Johnson

MCH Burns Program provides innovative treatment

The Burns Program of the Montreal Children's Hospital (MCH) of the McGill University Health Centre (MUHC) Trauma Program is one that is innovative in its treatment of serious burn cases. One novel protocol includes state-of-the-art burn dressings that have allowed the program to halve the number of hospital admissions and follow many more patients on an outpatient basis.

"This is an approach that we feel is better for both the patients and their families," says Debbie Friedman, head of the MCH Trauma Program. "In many ways the coordination of this type of outpatient care requires a lot more work for us than having the child at the team's disposal when admitted. But we feel it is much better for the child and family, and that is what matters."

The Emergency Department sees over 200 burn trauma patients a year, which is about a burn patient every second day. The decision to admit the patient or to treat them on an ambulatory basis depends on the severity and location of the burn, the child's age and medical status, the psychosocial situation, the ability to ensure adequate pain control, and any associated injuries. It is a very progressive approach that has recently been misinterpreted by government as lack of patient volume, suggests Friedman.

"Many of the patients we are treating on an outpatient basis would previously have been admitted to the hospital and now they are not," she says. "This approach is also being used by other centres, such as the Alberta Children's Hospital, the B.C. Children's, The St. Louis Children's Burn Center and the Shriners' Hospital in Boston."

According to Friedman, central to this progressive approach is the use of modern burn dressings, which require less frequent changing and thereby, should result in fewer painful experiences for the patients.

"The older kinds of dressings had to be changed daily and sometimes even twice daily, which was extremely painful and traumatic for both the patients and the families," she says. "Because of this, patients were frequently drowsy due to medication used for pain control, which suppressed their appetite and slowed the healing process. In addition, the older dressings were much more bulky, which reduced the child's mobility and rehabilitation."

The modern dressings reduce the length of hospital stay for patients, once their medical needs have been stabilized, and negate the need for admission for many other patients. The health-care team can coordinate dressing changes, rehabilitation and physician follow-ups on an outpatient basis.

—K.J.

Neurotrauma Program—A jewel in the crown at the Montreal Children's Hospital

A jewel in the crown of the Montreal Children's Hospital (MCH) McGill University Health Centre (MUHC) Trauma Program is its highly acclaimed Neurotrauma Program, which was the first of its kind in Quebec.

"Neurotrauma is in many ways the most complex of all traumas because you're dealing with children who have brain injuries and/or spinal cord injuries," says Debbie Friedman, head of the MCH Trauma Program. "These can be life and death situations so you need the highest level of care. This is where timing, expertise and acute interventions make an enormous difference."

According to Friedman, when dealing with traumatic head injuries, one may be dealing with a child who will have life long deficits or with a child who looks fine on the outside but may have all kinds of cognitive, behavioral, and memory problems following a significant concussion.

"Helping a child who has sustained a head injury to reintegrate back into school and home life is very, very different from helping an adult reintegrate," says Friedman, who explains that a children's trauma centre can provide important pediatric and adolescent-centred expertise that differs from that provided at adult centres. "The situation is completely different—from the school environment, to the psychosocial environment, to the home environment."

Friedman is particularly proud of the Neurotrauma Program's approach to concussion evaluation, management and early rehabilitation.

"We have developed an extensive approach to the management of different types and severities of head injuries, which is something that not all hospitals have," she says. "We have an excellent screening and intervention process, an activity restriction and gradual return to sports plan, a Neurotrauma handbook that is geared towards parents, teachers, and professionals, and we provide guidance for school reintegration or referral to other appropriate trauma network resources."

The Trauma Program has also just launched a new pamphlet, which strongly encourages the use of helmets and other protective equipment for wheel sports. As Friedman puts it, "the best form of trauma treatment remains prevention."

—K.J.