



The Children's Priority Equipment Project: Upgrade of IV Pumps
Presented to The Sian Bradwell fund
November 2023

la fondation
de l'hôpital
de montréal
pour enfants
the montreal
children's
hospital
foundation



The best technology to ensure the highest standard of care

As a tertiary care hospital, The Children's treats some of the sickest, most vulnerable patients in Quebec. When caring for them, the stakes are high! The smallest error can be costly, which is why we need the best technology available every step of the way.

Imagine this scenario: A preemie in the NICU is in urgent need of morphine, which must be administered intravenously using an IV pump. The nurse calculates the dosing at the bedside with precise calibration. Following pharmacy instructions according to the weight of the baby, she calculates the rate per hour and then programs it into the pump. The slightest mistake in the volume or in the order of a decimal point, whether under-dosing or overdosing, can be the cause of a major medication error.

In 2007, The Children's was the first hospital in Canada to adopt smart IV pumps that store every detail about medication or other solutions administered to patients. At the time, these were a game-changer for pediatric care. After many years of daily use, however, these pumps have exceeded their useful life expectancy.

This outdated technology provides no system to double-check that the medication given has a safe dosage or that the rate entered in the IV pump is within a safe range for the patient.

The current standard of care is to use the latest generation of smart pumps in conjunction with **a medication library adapted to the needs of each patient**, to enhance existing safety protocols.

The Children's current fleet of pumps is not sufficient to implement this important change. The only solution is a complete replacement of the fleet with 900 IV Wi-Fi compatible pumps. Government funding will cover the cost of 700 pumps, IT upgrades and training, but the Hospital needs funding for the balance of 200 required to complete the project. These new pumps will be equipped with the most up-to-date version of the infusion management software, offer wireless communication and allow for the creation of a medication library for the pediatric population.

IV pumps are used in all care units and treatment areas of the Hospital daily, with many patients requiring multiple pumps to administer life-saving nutrients and medications throughout the day.

The models requested by The Children's are already in use at the Glen site on the adult side, which ensures their compatibility with the MUHC's existing infrastructure and Wi-Fi.

This priority equipment project requires the purchase of 200 IV pumps at \$5,000 each, for a total cost of \$1 million.

We hope you will join us in this campaign to offer our young patients the best medical technology available.





With the increasing complexity of care administered to our patients, it is important The Children's equips itself with cutting edge of technology to ensure quality and safe care.

Wi-Fi compatible
Up to date with
increased efficiency.

Medicine is fast-evolving and requires nurses to stay up to date with best practices. With Wi-Fi compatible pumps, any change in protocol or new medication could be loaded onto all The Children's pumps at the same time, instead of having nurses load the drug library on them manually one by one. The nurses will simply be prompted by the pump to download the newest version.

Integrated drug library
For safe dosing limits.
Always.

The integrated drug library offers preset safety parameters and dosing limits for each medication; the dosing calculation at the bedside will be greatly facilitated, avoiding harming the patient. The pump will calculate a safe rate by using the patient's weight and the nurse will confirm it with her own calculations. If she chooses unsafe parameters (dose, rate, etc.), the pump will not allow her to give the medication and the nurse will need to check her treatment plan.



We hope to deploy the new fleet of pumps throughout The Children's and implement the drug library in all departments by summer 2024. To do so, the Hospital must acquire all 900 at the same time so that all the equipment is compatible.

Nurses will receive hands-on training to transition to these new practices. The creation of "super users" will allow knowledge transfer and support in the weeks following implementation.

Thank you for helping us offer the best care to all The Children's young patients

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