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#### THE HOSPITAL FOR SICK CHILDREN

Canada's largest centre dedicated to improving children's health Focus on child and family-centred care



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#### BLOOD AND MARROW TRANSPLANT AND CELLULAR THERAPY PROGRAM

The provincial center for paediatric Bone Marrow Transplant (BMT)/Cellular Therapy (CT):

- · Perform an average of 105 transplants annually (close to half of all paediatric transplants in Canada)
- · 100% of paediatric bone marrow transplants for children in Ontario •
- Provide care for children requiring BMT across the Atlantic Provinces and specialty services for children across Canada
- · Approximately 120 cellular therapy infusions per year

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## **INPATIENT UNIT**

Children receive treatment for leukemia, lymphoma, aplastic anemia, sickle cell disease, and other diseases

Patients with very compromised immune systems

Require isolation to their rooms for weeks to months at a time



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### BACKGROUND

Renovation to the unit is long overdue and is critical:

- · The technology is outdated,
- · The rooms are small,
- The rehabilitative process is slow as patients are unable to get sufficient exercise with the limited space of their rooms,
- There are no bathrooms or showers in the rooms; only option is commodes and bed baths.

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# BACKGROUND

End stage will include:

- · The addition of washrooms to all patient bedrooms,
- The pressurization of patient rooms and corridors to allow patients to leave their rooms,
- The incorporation of parent sleeping/living areas into fully renovated patient rooms,
  And the upgrade of finishes to current standards/best practices.
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### **CONSTRUCTION/RENOVATION RISK**

Risk of disturbing and dispersing fungal elements, which can lead to serious infection and even death

Patients who have undergone bone marrow transplants and oncology patients receiving chemotherapy are at greatest risk



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#### **CONSTRUCTION/RENOVATION RISK**

With such a high-risk population, and the extensive demolition and renovation over a lengthy period, would ideally happen in an unoccupied unit

To ensure continuity of transplant services, the decision was made to proceed in an occupied unit, over three phases



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## INFECTION CONTROL RISK ASSESSMENT

All construction and renovation projects in healthcare settings require appropriate infection and prevention measures to minimize the risk of acquiring a construction-related infection and keep the safety of our patients, families and staff on the forefront.

Infection Prevention and Control (IPAC) has been involved from the very early stages of planning

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### INFECTION CONTROL RISK ASSESSMENT

The Infection Control Risk Assessment (ICRA) determined the requirement for the most extensive and stringent preventative measures To ensure compliance with these measures, IPAC provided additional recommendations and worked in collaboration with the clinical team to execute them

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### **ADDITIONAL MEASURES**

The creation of an electronic site audit tool that could be accessed on any mobile device To increase auditing coverage, IPAC provided an education session to a variety of unit staff Focused on the risks and key issues to be aware of

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## ADDITIONAL MEASURES

A number of security guards:

- Were trained in the two-day Canadian Standards Association (CSA) course,
  Met with IPAC and the Project Manager to review the site once hoarding was erected,
- Were stationed at the site during working hours to monitor for breaches,

Would report any breaches to the PMs

Once in the final two phases an external hoist will be used for the transport of materials and personnel to avoid any movement through the unit

## RESULTS

The audit tool with a simple checklist has provided a quick and easy way to identify and report breaches

It helps ensure consistency and reliability in the data and can be analyzed as needed



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## RESULTS

A review of the completed audits showed that those performed by IPAC and unit staff were most reliable and consistent

Focus on increasing and continuing to utilize those audits

As we move into the second phase of the project, we will be able to analyze the use of the hoist

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## **LESSONS LEARNED**

Renovation in such a high-risk area can require additional measures to help mitigate risk

Active engagement of unit staff, equipped with the proper knowledge and tools, leads to an increased number of eyes on the site which:

Allows for early detection and reporting of breachesEnables issues are addressed in a timely manner

Staff are eager to be involved in keeping their patients and families safe

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THANK YOU



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