



Thunder Bay Regional
Health Sciences
Foundation

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Synopsis of Grant Commitments 2021/2022

Thunder Bay Regional Health Sciences Foundation

2021-001 Nursing Station Desk Lift Renovation – Forensic Mental Health (Davidson, \$5,254.50)

Facility Improvement to raise nursing station for better views, improving patient safety

The Forensic Mental Health unit provides care to people with severe and persistent mental health issues who have come in contact with the criminal justice system. The nursing station on the unit is enclosed for safety reasons. However, the current height of the desk makes it difficult for nurses at the station to monitor patients in the unit when working on the computers to complete charts and other work. By raising the desk level, nurses will have a better view of the unit to provide better care and improve patient safety.

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2021-002 New Staff Entrance for Forensic Mental Health (Davidson, \$24,480.36)

Facility Improvement to improve patient, staff, and public safety

Currently, staff and patients enter the secure unit using one single secured entrance. However, in the event of a Code White (a patient has become aggressive or assaultive), it is safer for the staff to enter the unit through its own secure entrance way into the staff area instead of directly into the patient area. This will give staff and security time and space to consider the safest options before de-escalating the situation.

2021-003 Portable Medical Lifts x 2 (Perry, \$25,599.94)

Equipment to assist with patient transfers and positioning for patient and staff safety

During hospitalization, it is best practice for patients to change positions at regular intervals to prevent common injuries such as pressure sores and blood clots. Some patients require help changing position, which can often lead to staff injury. Mechanical lift-assist devices are safer for both staff and patients. These two new devices will replace ageing equipment.

2021-004 Giraffe Blue Spot Lite Phototherapy System – NICU (Somera, \$8,394.36)

Equipment to prevent more dangerous forms of jaundice in newborns

Jaundice is common in newborns, especially in pre-term babies, and usually disappears on its own. However in some cases, it can lead to a build-up of bilirubin, a more dangerous condition that can cause seizures, brain damage, and other permanent injury. Phototherapy – the use of light on the baby's skin – can prevent this dangerous condition by effectively eliminating bilirubin.



2021-005 Multi-purpose Echocardiography Machine x 2 – Cardiovascular Surgery Program (Sharp, \$500,000)

Equipment upgrade and replacement ultrasound diagnostic tool

Echocardiograms use ultrasound waves to image certain areas of the body including the heart to diagnose conditions, for treatment planning, and for treatment monitoring. Today's new technology is lighter, easier to use, and more portable than ever. It is also the type of technology needed for our growing Cardiovascular Surgery Program to ensure the best quality images possible. These multi-purpose units can be used for cardiovascular, cancer, Emergency Department, NICU, and other patients throughout the Hospital without transferring the patient – the portable unit comes to them.

2021-006 Cancer Care Capital Upgrades – Regional Cancer Care (Docherty, \$252,709)

Equipment to upgrade to current technology and improve patient comfort

These upgrades to radiation therapy will ensure our cancer patients continue to receive cutting-edge cancer care. Capital upgrades include: two new linear accelerator (linac) control systems – one for each linac, data migration hardware (servers and switches), workstation upgrades, three deep breath hold control systems to assist patients during treatment, a treatment immobilization device to reduce patient movement on the treatment table, and a warming blanket for patient comfort.

2021-007 Bariatric Stretcher Chair - ICU (Beck, \$12,198.77)

Equipment to help with transfer of patients over 350 pounds

There are risks to lifting and moving patients over 350 pounds – risks to the patient and staff. This specially designed chair minimizes risks to improve patient and staff safety. The heavy-duty chair has an infinite number of tilt and recline positions from fully sitting to a flat stretcher with powered positioning controls.

2021-008 Microbiology Plate Streakers x 2 (Carr, \$250,000)

Equipment to identify pathogens and diagnose disease

The microbiology lab uses devices called plate streakers to identify pathogens such as bacteria or yeast from patient samples to diagnose a range of diseases. These two streakers – one automatic and one semi-automatic – will replace and upgrade ageing units that are past end of life and at failure risk. Failure of one or both units would lead to delays in diagnoses affecting patient care, flow, and management.

2021-009 Point of Care Testing (POCT) Equipment (Carr, \$41,775)

Equipment for rapid bedside testing

Point-of-care testing or POCT is a type of rapid testing “at the bedside” that helps doctors diagnose disease faster. Not only does this improve patient care and convenience, it also



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improves patient flow in high-volume areas including the Emergency Department. Equipment includes two blood analyzers and one urinalysis device.

2021-010 Automated Medication Dispensing Units x 2 – Pharmacy (Desramaux, \$100,000)

Equipment to improve medication speed and safety

Automated dispensing cabinets are proven to improve medication speed and safety – including at our Hospital. Rather than manually fill out prescriptions and travel to the pharmacy to fill them, prescriptions can be reviewed and approved electronically. Then, the secure cabinet automatically dispenses the right medication and dose to authorized healthcare professionals on that unit. This greatly increases speed and reduces the risk of medication errors, improving both patient safety and comfort. With this grant, all inpatient units at the Hospital will now have automated dispensing cabinets.

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2021-011 MRI-Compatible Virtual Reality Goggles – Paediatric Outpatient (Halverson, \$68,733.49)

Equipment for young patient comfort and improved safety

Children coming to the Hospital for tests and procedures may feel scared and overwhelmed. Staff try to provide distractions including games. But these distractions are limited; MRI procedures do not allow for metal inside the room since the imaging device is a large magnet. These MRI-compatible Virtual Reality goggles can be used to calm children by immersing them in scenery or a game. This reduces the need for medications and the possible side effects that come with them.

2021-012 Capital Equipment – Labour & Delivery Maternal Newborn (Edwards, \$120,000)

Equipment for infant care in Labour & Delivery

Labour & Delivery requires equipment replacement and upgrades for safe delivery for mother and child. This equipment includes two infant warmers, a delivery cart for instruments, an operating table for emergency surgical interventions during labour, a microscope to confirm whether or not mother's water broke, and two bili blankets and a phototherapy light to reduce jaundice in newborns.

2021-013 High-Definition Video Camera Head for OR - Urology (Kelly, \$21,000)

Equipment for better diagnosis of urological conditions

High-definition cameras have become the Gold Standard of urological procedures. They help during diagnosis and treatment of a variety of conditions including cancers of the kidney, ureter, bladder, and prostate, as well as kidney stones and prostate enlargement. This camera head replaces a damaged unit. A loaner camera head will be used in the meantime to reduce diagnosis and treatment delays.



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2021-014 X-Ray Replacement – Fracture Clinic (C. Willson, Skillen, \$380,000)

Equipment to X-ray bones for breaks

The ageing X-ray unit in the Fracture Clinic is original to the Hospital's opening in 2004 and is in need of replacement. This new unit also upgrades the previous technology by providing higher resolution images using a lower dose of radiation. The installation of this unit represents the last of the X-ray upgrades recommended by Diagnostic Imaging's Five-Year Plan.

2021-015 3T Clinical MRI Scanner – Diagnostic Imaging (S. Willson, \$300,000)

Equipment to replace and upgrade current 1.5T MRI unit

Magnetic resonance imaging or MRI is becoming a standard diagnostic tool for cardiac, breast, and prostate imaging along with other uses including orthopaedics. This new 3T unit will replace and upgrade the current 1.5T, providing sharper images of soft tissues in most situations. It is also faster which means more patients can be scanned per day.

2021-016 General Diagnostic Ultrasound – Diagnostic Imaging (S. Willson, \$100,000)

Equipment for diagnostic imaging

Ultrasound is used for diagnostic imaging in a variety of situations for inpatient, outpatient, and emergency patients. This new unit will replace an ageing unit purchased in 2006 which is experiencing failures leading to significant downtime. Replacing this unit now will avoid possible delays for the individual patient as well as overall patient flow. The new unit will also be an upgrade providing improved image quality.

2021-017 Phaco Handpiece x 2 – OR (Barrie, \$11,208)

Equipment for cataract surgery

The Phaco handpiece uses ultrasound to break up cataracts and remove debris from the eye in preparation for a new artificial lens. These two new units will help the Hospital's OR meet their heavy workload. Surgeons in the OR perform over 2,200 cataract surgeries per year.

2021-018 MIS Suite Equipment with Integration – OR (Barrie, \$200,000)

Equipment replacement for three minimally invasive surgery suites

Minimally invasive surgery (MIS) including laparoscopic surgery reduces recovery time and side-effect risk, providing better patient care and safety. Currently, surgeons perform 5,000 minimally invasive surgeries every year at our Hospital in one of three MIS suites. All three require replacement of ageing equipment including surgical booms, surgical lights, camera systems, and monitors. The new systems will include upgraded integration so that all equipment can be controlled from one central console.



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2021-019 Minimally Invasive Thoracic Surgery Equipment – Operating Room (Barrie, \$32,694)

Equipment to assist with minimally invasive thoracic surgery

A new thoracic surgeon at our Hospital brings the latest minimally invasive surgical techniques for procedures such as lung resection during cancer diagnosis. However, this requires specialized equipment. These clamps and holders will allow the surgeon to perform video-assisted thoracic surgery (VATS) without the need of an assistant to hold the equipment during surgery.

2021-020 Electrosurgical Cautery Units x 2 – Endoscopy (Barrie, \$101,890)

Equipment for cutting and cauterizing during endoscopy

Cautery units are key pieces of equipment used during endoscopy to remove polyps, take a tissue sample for biopsy, and cauterize wounds to reduce bleeding. These two new units will replace ageing equipment.

2021-021 Ascent Trainer – Adult Mental Health (Macey, \$7,815.80)

Equipment to improve physical and mental health

Research shows that physical exercise improves mental health including reducing depression, stress, and anger. However, there are limited options for people admitted to the Adult Mental Health unit who often cannot leave to go outside for exercise for even short periods of time. This new elliptical-like trainer will allow inpatients to get more exercise along with all the benefits that brings.

2021-027 Thunder Bay Breast Cancer Support Group (\$5,000)

Program to support breast cancer patients and survivors

The Thunder Bay Breast Cancer Support Group provides support through monthly meetings and other events to patients diagnosed with breast cancer throughout treatment and survivorship.

2021-028 Large-Volume Infusion Pumps – Hospital-wide (Docherty, Edwards, \$100,000)

Equipment to deliver medication and/or fluids via IV

This standard equipment is used throughout the Hospital in almost all clinical areas to deliver medications and/or fluids via IV. The current fleet of 600 have been discontinued and will no longer be supported by the manufacturer past 2023. The Hospital plans to replace them with 665 new units. These units also represent an upgrade with safety features such as advanced dose error reduction and infusion limits.



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Regional Grants

2021-022 Central Water Purification System – Fort Frances – Renal Program (Hoard-Mann, \$100,000)

Equipment to replace ageing purification system

Dialysis requires a reliable supply of clean water, which entails purification to ensure it is safe for patients. This new purification system replaces an ageing unit at the La Verendrye Hospital – Riverside Health Care in Fort Frances.

2021-023 Chemotherapy IV Infusion Pump – Terrace Bay – Regional Cancer Care (Knox, \$5,416)

Equipment replacement and upgrade for chemotherapy infusion

Regional Cancer Care supports several outpatient chemotherapy programs throughout Northwestern Ontario for closer-to-home care. The program at North of Superior Healthcare Group – McCausland Site in Terrace Bay needs to replace ageing chemotherapy IV infusion pumps. This new pump is an upgrade in a number of ways including built-in error prevention features, wireless monitoring, and customization features for pharmacists. The pump will improve patient safety as well as program efficiency.

2021-024 Colonoscopy Upgrades – Marathon and Area – Regional Cancer Care (Gobeil, \$43,784.46)

Equipment to ensure reliable colonoscopies in Marathon and surrounding area

Timely colonoscopy screening for cancer saves lives. The surgeons of the North of Superior Healthcare Group – Wilson Memorial Site in Marathon provide colonoscopies within the town and up to three hours away in the surrounding area. Current equipment is ageing and requires replacement – especially important given the nature of travelling clinics. This replacement and upgrade colonoscope and monitor will ensure continued timely access to colonoscopies to patients in and around Marathon.

2021-025 CADD Infusion Pump – Kenora – Regional Cancer Care (Melillo, \$6,616.72)

Equipment to provide automated pain medications to palliative patients

Often for palliative patients, oral pain and other medications may not be possible. The Continuous Ambulatory Delivery Device or CADD infusion pump provides easy infusion of medications. This unit includes safety features including dosage monitoring and pre-programmed infusion rates. It is also relatively small and therefore less intrusive, contributing to patient comfort and quality of life.

2021-026 Chemotherapy IV Infusion Pump x 2 – Dryden – Regional Cancer Care (West, \$10,832)

Equipment replacement and upgrade for chemotherapy infusion



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Northern
Cancer Fund



Northern
Cardiac Fund



Health Science
Discovery Fund

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