

# Synopsis of Grant Commitments 2016/2017

## Thunder Bay Regional Health Sciences Foundation

### **2016-002** Vascular Access Ultrasound Monitor for Renal Program (Wrigley, Skillen, \$5,135.99)

**Equipment** that enables gold standard patient care during dialysis in the region

With increased vascular surgical services in Thunder Bay, dialysis patients can have an AV fistula at the wrist. This reduces the risk of infection and is easier for the patient than a central line catheter. However, this fistula needs to be monitored using ultrasound, previously unavailable at the Renal Program's regional satellite sites. Now, dialysis patients in the region will have the same gold standard of care.

### **2016-003** Bladder Scanner for Regional Stroke Unit (Taylor, \$12,995)

**Equipment** that improves patient care during incontinence diagnosis in stroke patients

Between 40% and 60% of patients experience urinary incontinence at some point after a stroke. Once diagnosed, there are different care procedures that can help the patient. Previously, catheterization was used to diagnose patients, but this method can be uncomfortable for patients and can lead to infection. This new ultrasound equipment will allow staff in the Regional Stroke Unit to assess patients faster in a non-invasive way that is more comfortable and helps preserve dignity.

### **2016-004** Electroconvulsive Therapy Unit for Acute Mental Health Services (Voros, Fogolin, \$16,495)

**Equipment** for treating patients with acute mental health disorders

Electroconvulsive therapy (ECT) remains the standard of care for many with acute mental health disorders. For some, it is a treatment of last resort. There can be significant improvements in patients who do not have any other treatment options. For this reason, Acute Mental Health Services is expanding ECT services. This new unit will help psychiatrists provide better care to more patients.

### **2016-005** Flow Cytometry Analyzer (Kisselgoff, McKnight, Welbourne, Carr, Trevisanutto, \$110,000)

**Equipment** that analyzes blood and tissue samples for fast diagnosis lymphoma and leukemia

Flow cytometry is a relatively new diagnosis method for lymphoma and leukemia that reduces the wait time for patients from testing to results to treatment. For some patients, faster treatment can be the difference between life and death. However, certain tests need to be sent out of Thunder Bay. This not only increases the wait time, there is the possibility that the sample will not reach the lab and be tested within the 24-hour window before the sample degrades. That means often-painful procedures to get new samples such as bone marrow needles have to be redone. This new equipment will allow those tests to be done right here in Thunder Bay, providing faster, better care for patients.



**2016-006 Analyzer - Transfusion Medicine** (Kisselgoff, McKnight, Welbourne, Carr, Sharun, \$100,000)

**Equipment** to ensure proper cross-matching of blood for transfusions

Over 2,500 patients at the Thunder Bay Regional Health Sciences Centre receive a blood transfusion each year. Cross-matching units of blood with the patient's blood type and other factors are vital to ensuring safe transfusions. This analyzer will update current capabilities and will improve service for patients in almost every department including the Emergency Department, Maternal Newborn, and Surgical. It will also meet the needs of our future Cardiovascular Surgery Program.

**2016-008 Knee Arthroscopy Instruments for Regional Orthopaedic Program** (Erickson, \$36,665.95)

**Equipment** for knee surgeries

Each year, orthopaedic surgeons at the Thunder Bay Regional Health Sciences Centre perform over 500 knee arthroscopies. This procedure is used to treat and diagnose patients knee injury due to trauma (for example, a sports injury), normal wear and tear due to ageing, and other conditions. The highly specialized instruments used for these procedures break down over time and require replacing.

**2016-009 Ankle Scope for Regional Orthopaedic Program** (Erickson, \$6,866.76)

**Equipment** to enable minimally invasive ankle surgery

With the addition of Dr. Tina Le François to the orthopaedic surgeon group, the Regional Orthopaedic Program can now offer minimally invasive ankle surgery for faster recovery and rehabilitation. This new scope replaces a "loaner" scope, which would have resulted in an interruption in service upon its return.

**2016-011 Sinus Surgery Instruments for the Operating Room** (Erickson, \$29, 823.33)

**Equipment** for sinus surgeries

Over 50 sinus surgeries are performed at the Thunder Bay Regional Health Sciences Centre every year. New equipment acquired in 2013 provided surgeons with image-guided navigation for pinpoint precision. These new instruments will upgrade current equipment and allow surgeons to use the image-guided system to its fullest potential for safer procedures and faster recoveries on average.

**2016-012 Anaesthetic and Medication Infusion Pump for the Operating Room** (Erickson, \$4,034.10)

**Equipment** to administer anaesthetic and other medications at a constant rate

During surgery, patients undergo a general anaesthetic. In a growing number of cases, it is beneficial to administer that anaesthetic at a constant rate over time. However, with only two pumps available, cases are increasingly being prioritized. This new B Braun Infusion Device will expand OR capabilities so that more patients will benefit. Further, this multi-use pump can also be used for other applications including administering pain medications for the Chronic Pain Management Clinic.



**2016-015 Bariatric Colposcopy Chair for Ambulatory Care** (MacDonald, \$19,027)

**Equipment** for safely holding patients with a larger body mass index during examinations

Colposcopy (a procedure to visually examine the cervix, vagina, and vulva for signs of disease) can be difficult with patients who have a higher body mass index. The current colposcopy chair is ageing and no longer works as required. This new chair will replace and upgrade the current chair, improving access for bariatric patients and improving safety for all patients and staff.

**2016-016 Intracranial Pressure Monitor for ICU** (Beck, \$10,249)

**Equipment** for monitoring pressure in a patient’s skull after head trauma or other medical condition

After a head injury or other medical condition such as disease, stroke, or brain tumour, there is a risk of increased pressure inside the skull. This pressure presses against the brain, brain stem, and/or spinal cord, which can lead to brain damage, paralysis, and death. An ICP monitor alerts staff if pressure is building so that emergency treatment can be provided. This new unit will expand ICU’s capabilities.

**2016-019 Pacemaker Pulse Generator for ICU** (Winslow, \$7,410)

**Equipment** to provide emergency heart support for patients waiting for a pacemaker

A pulse generator, also known as a “pacemaker”, assists injured hearts by generating a small jolt of electricity to get the heart to beat. This temporary unit provides the same function externally for the patient until a permanent pacemaker can be surgically implanted.

**2016-020 Laryngoscope for the Emergency Department** (Longridge, \$16,910)

**Equipment** to help ED staff insert a tube into the airway to assist breathing

In emergency situations, ED staff sometimes have to intubate (insert a breathing tube) into the lungs. This equipment makes it easier for staff by allowing them to see down the windpipe so that they can visually guide the breathing tube. This allows for faster and safer intubation for patients with less internal bruising.

**2016-023 Fetal Telemetry Monitor for Labour and Delivery** (Moorhouse, \$37,000)

**Equipment** to monitor baby’s vital signs during labour

Every woman who gives birth at the Thunder Bay Regional Health Sciences Centre has a fetal monitor attached to her at some point during labour to ensure everything is alright with the baby. This new monitor is an upgrade from previous, ageing monitors since it connects wirelessly, allowing mother to walk and even relax in a bath during labour. This reduces stress and greatly increases comfort for mother while increasing safety for baby.



**2016-024 Bili Blanket for NICU** (Purdon, \$12,031.26)

**Equipment** to reduce bilirubin levels in sick newborns while being held by parents

Bilirubin is a compound in the blood that is normally disposed of by the liver. However, sometimes the liver in newborns does not start functioning for a few days, resulting in rising levels of bilirubin. This can lead to jaundice and can become extremely serious if left untreated. Traditionally, treatment required isolating the newborn in an incubator with special light treatment (phototherapy) that helps break down the bilirubin. However, this meant that the newborn could not be held by mother or father during the important bonding time. A bili blanket provides the same effects of phototherapy while allowing parents to hold, soothe, and rock their newborns, improving quality of life for new parents and babies.

**2016-025 Chemo Hood for the Regional Cancer Centre** (Emery, \$20,000)

**Equipment** for safely preparing chemotherapy doses

Each year, the Regional Cancer Centre prepares 11,000 doses of chemotherapy for its patients. Preparation is extremely hazardous and requires special gloves, gowns, and masks. A specialized hood, similar to the range hood in a kitchen, helps protect staff during preparation and helps keep conditions sterile for the safety of the patient.

**2016-031 Nipple Tattooing for Regional Cancer Centre** (McConnell, Azad, \$10,000)

**Equipment** for tattooing breast reconstructions

For many women with breast cancer who undergo full mastectomies, breast reconstruction helps improve self-confidence and quality of life. Nipple tattooing is the final step in the process. Dr. Sanjay Azad at the Regional Cancer Centre is trained in this procedure, but does not have the equipment to do it. Patients either have to leave home or settle for an incomplete breast reconstruction. This equipment will allow Dr. Azad to complete this procedure for all patients, right here in Thunder Bay.

**2016-027 Power Exam Table for Regional Cancer Centre's Outpatient Clinic** (Roberts, \$6,133)

**Equipment** to enable less mobile patients to more easily get onto an exam table

Elderly and less mobile cancer patients who come to the Regional Cancer Centre's Outpatient Clinic often have a hard time getting onto the older, higher exam tables. This new power exam table lowers to allow the patient to easily go from standing to sitting position before lying down, reducing patient stress and increasing patient comfort and safety.

**2016-028 Triple-Channel Chemotherapy Pumps for the Regional Cancer Centre** (Roberts, \$16,700)

**Equipment** for providing chemotherapy to patients

The chemotherapy program was using loaned IV pumps for some of its patients, and with the growing number of cancer patients, new pumps are needed. This grant provides for two dedicated triple-channel IV pumps, designed specifically for chemotherapy.



**2016-029 Large-Bore CT Scanner for the Regional Cancer Centre (McGhee, Docherty, \$100,000)**

**Equipment** for providing CT imaging, specifically for radiation treatment planning

Brachytherapy radiation treatment is sometimes called “internal radiation therapy” because the radioactive source is placed near the tumour through tubes inserted in the body. Traditionally, patients receive a CT scan to pinpoint the tumour and insert the tubes before they are moved to the shielded treatment room. However, the tubes can sometimes shift during transport, which in turn can affect the outcome of the treatment. This new large-bore scanner has a large enough hole that patients can be scanned in treatment position and then treated in the same shielded room. It will improve treatment results, increase safety, and increase patient comfort. It will also better-accommodate larger patients.

**2016-030 Inpatient Bed (Skillen, \$15,054)**

**Equipment** for inpatients

This bed replaces ageing beds and upgrades current capabilities with features such as “CPR position” with one button, notification of bed status change such as brake status, and the ability for the bed height to lower to 10.75 inches from the floor to make it easier for patients with mobility issues to get into and out of bed.

**2016-032 Infusion Pump for the Women and Children’s Program (Persichino, \$13,392)**

**Equipment** for intravenous (IV) injection of fluids, medications, etc.

This new IV replaces and upgrades ageing equipment.

**2016-033 Vital Signs Monitors (Thomson, \$45,714)**

**Equipment** for monitoring patient vital signs (heart rate, oxygen levels, etc.)

These new monitors replace and upgrade ageing equipment throughout the Health Sciences Centre. The new models allow patient information to go directly to their electronic medical record, reducing the risk of data misinformation and in turn increasing patient safety.

**2016-035 Workout Equipment for Rehabilitation Program (Baysarowich, \$24,910.85)**

**Equipment** for patients recovering from cardiac event, stroke, and other conditions

The Rehabilitation and Healthy Lifestyle Program is an education and exercise program tailored to patients to help them recover from an event or manage a chronic disease. Ageing workout equipment is threatening to reduce access to these vital services, which would not only reduce access to the equipment, but would reduce the long-term outcomes for patients due to delay. This equipment (two treadmills and an elliptical machine) upgrades current equipment and will ensure continued access to rehab services.



## Regional Grants

### Vitals Signs Monitor and IV Pump – Fort Frances (Manty, \$14,677.41)

#### **Equipment** for the chemotherapy program

La Verendrye Hospital in Fort Frances provides closer-to-home cancer care for its residents including chemotherapy. A new vital signs monitor and a triple-channel IV pump designed specifically for chemotherapy use will update current equipment to ensure continued patient care.

### Vitals Signs Monitor – Atikokan (Lavallee, \$3,366.95)

#### **Equipment** for the chemotherapy program

Monitoring vital signs before and during treatment is an important part of safe chemotherapy care. This new monitor dedicated to cancer care at the Atikokan General Hospital reduces wait time sometimes needed to find a shared monitor, and reduces the risk of transferring infection from other hospital areas.

### Blanket Warmer – Hearst (Morin, \$5,305)

#### **Equipment** for the chemotherapy program

Patient comfort during long chemotherapy treatments is very important, and getting cold is a common problem. This specialized equipment for the chemotherapy program at Hôpital Notre-Dame Hospital will ensure patients will always have a warm blanket when they need it.

### IV Pump – Terrace Bay (Anderson, \$8,350)

#### **Equipment** for the chemotherapy program

This new triple-channel IV pump provides the chemotherapy program in Terrace Bay with a specialized – and dedicated – IV pump to ensure timely chemotherapy and to reduce the risk of transferring infection from other areas of the hospital to already-weakened cancer patients.

### Vital Signs Monitor and Chemotherapy Chair – Marathon (Gobeil, \$4,742.67)

#### **Equipment** for the chemotherapy program

Patient comfort and safety are always important during chemotherapy. This new chair for the chemotherapy program in Marathon will ensure patients are comfortable during long treatments. A new dedicated vital signs monitor will help staff examine patients before and during chemotherapy.



## Additional Grants

### Endovascular Aneurysm Repair (EVAR) Equipment (\$554,000\*)

**Equipment** to repair abdominal aortic aneurysm

An abdominal aortic aneurysm (AAA) is a serious condition in which the aorta, a main blood vessel that supplies blood to the abdomen and legs, “balloons” and can eventually rupture. EVAR is a minimally invasive procedure with faster recovery times and safer for those who are not well enough for open surgery. It is one of the steps towards a full Cardiovascular Surgical Program, providing life-saving – and life-changing – services to thousands of people with cardiovascular disease in Northwestern Ontario.

*\*Funds committed, but still seeking community support*

### Cyclotron (\$1,000,000)

**Equipment** for producing radioactive isotopes for diagnostic imaging and research

The Exceptional Cancer Care campaign finished on a strong note by raising the final \$1 million to get the cyclotron operational. It now produces fluorine-18 for research and calibration purposes, and will produce FDG for patient use pending Health Canada approval.

### Family CARE (Care Advancements Recommended by Employees) Grants (\$30,000)

**Equipment** and other program enhancements identified by staff

Each year, the program provides up to \$60,000 to fund staff-generated projects with preference going to those projects that demonstrate the greatest patient need and benefit. These funds – \$30,000 contributed by the Volunteer Association and \$30,000 by the Health Sciences Foundation – come directly from our generous donors, many of whom designate their donations directly to the Family CARE Grant program.

### COPE 2017 (\$3,000)

**Program** speaker series for medical professionals

The Community Oncology Professional Education (COPE) is an annual professional education workshop for healthcare professionals.

### Research Projects (\$192,842.52)

**Research**

Funds directed specifically to revolutionary research at the Thunder Bay Regional Research Health Institute (TBRHRI). Current projects underway include advanced lung imaging, stroke rehabilitation, cervical cancer treatment, positron-emission mammography (PEM), high-intensity focused ultrasound (HIFU), development of new probes for nuclear imaging, and many others.



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