ACTION AT GRH

Pediatric **Second** resuscitation simulation

How simulation curriculum is being implemented within a community hospital setting page 5 Spotlight on research with McMaster University Waterloo Region Campus

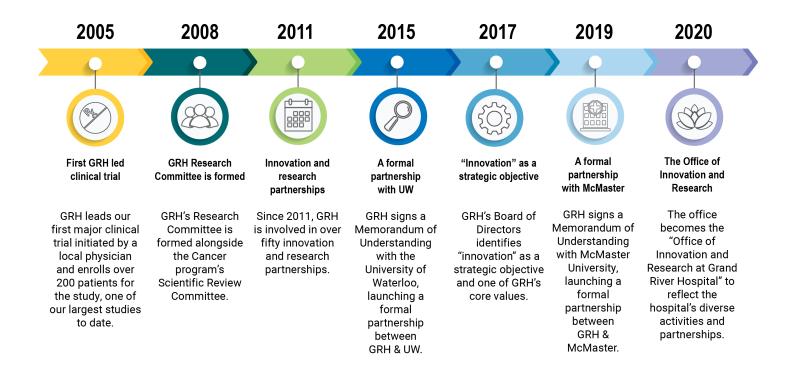
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Donor milk for lower risk neonates in the NICU page 8

Pictured: Dr. Fox (left), GRH pediatric physician, conducts a demonstration in the simulation lab at GRH.

BRINGING TOGETHER INNOVATION AND EXCEPTIONAL CARE Winter 2021 The Office of Innovation and Research (OIR) at Grand River Hospital brings clinicians and research and industry partners together to explore new ways of improving patient care

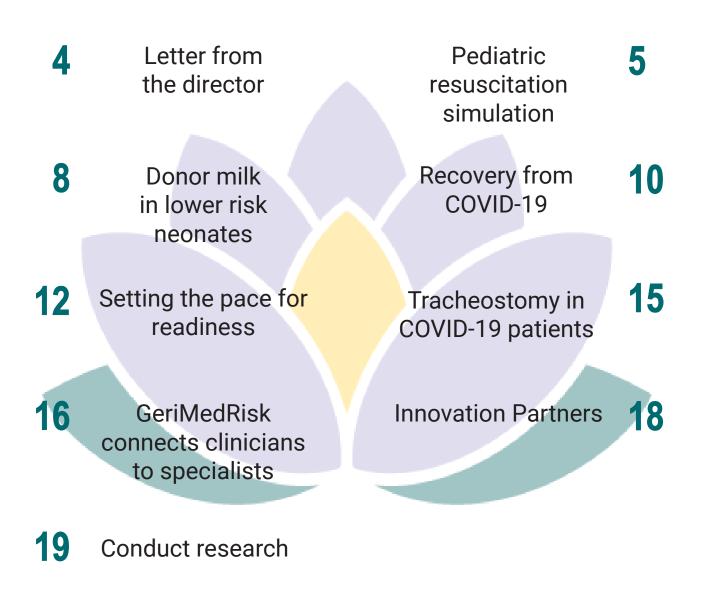
We coordinate all innovation and research activities at Grand River Hospital, one of the largest and busiest community hospitals in Ontario, with 665 beds, over 3700 staff, approximately 700 physicians, dentists, midwives and nurse practitioners, and 1,000 volunteers. OIR supports and participates in multi-disciplinary clinician-based applied research in each of GRH's 15 clinical programs and service areas. Through partnerships with institutions across the Waterloo-Wellington region, such as the University of Waterloo and McMaster University Michael G. DeGroote School of Medicine, OIR provides researchers and clinicians with the opportunity to work together on groundbreaking studies that advance exceptional care at GRH.



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ØGRHresearch in OIR-GRH

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Letter from the Director



rand River Hospital is surrounded by a number of outstanding educational institutions and is proud to partner with each of them in different ways. The McMaster University

Michael G. DeGroote School of Medicine Waterloo Regional Campus is no exception to those long standing partnerships. GRH has been providing opportunities for McMaster learners to complete clerkship and residencies within our institution since the campus opened in 2007. Advances in that partnership included the establishment of student facilities, including meeting and study rooms, and on-call sleep rooms in 2015 and the creation of the Clinical Teaching Unit in 2017, a specialized multidisciplinary unit designed to provide care to patients and to help educate the next generation of health professionals. The simulation lab, a specialized location for learners to practice and enhance their skills, also opened in 2019. In addition, our every growing partnership with McMaster University continued with the Office of Innovation & Research creating a formalized partnership to expand engagement in the area of research for both clinician graduates from McMaster as well as student learners.

While GRH has a long legacy of research conducted in partnership with McMaster, our new formalized partnership solidifies the desire of our two organizations to seamlessly advance both exceptional care and exceptional education for the next generation of learners. We aim to increase the productivity of research that aligns with the hospitals priority areas, and provide increased opportunities for student learners to engage in research opportunities in tangible and meaningful ways.

This issue of ACTION highlights just a few of the current research studies being conducted by McMaster graduates and learners, spanning from the care of our tiniest of patients to our most vulnerable older adults. We're so pleased with the passion that McMaster clinicians and learners brings to our healthcare environment and look forward to the reporting on the advancement of knowledge and education that comes from the conduct of research.



Carla

Carla Girolametto Director, Innovation, Research, and Clinical Trials

Pediatric resuscitation simulation curriculum within a community hospital setting



imulation has been shown to be a valuable tool in training, bridging the gap between theoretical knowledge and clinical management, providing an opportunity to acquire new skills in a safe environment.

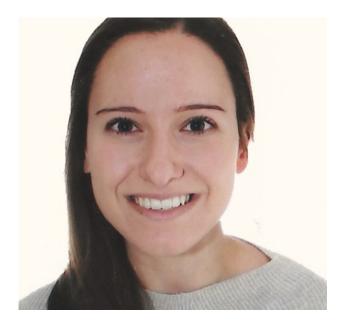
aiding in teamwork skill development and developing systemic approaches to otherwise infrequently encountered medical emergencies.

With this understanding, Grand River Hospital, in partnership with McMaster University Micheal G. DeGroote School of Medicine, implemented a simulation laboratory at the KW campus in early 2019. The lab includes a simulation room, an observation room, and a debrief room and provides dedicated space and equipment for medical learners to practice and enhance their skills.

Resuscitation of critically ill patients is considered a core competency of a physician, however, literature shows that frontline care providers, including senior medical students and junior resident doctors, often lack adequate confidence and competence to provide effective resuscitation. There is often even less confidence in pediatric resuscitation in general care providers given its uniqueness and relative infrequency in which community care setting providers are required to use these skills.

With this knowledge, Dr. Diana De Santis, a second-year pediatric resident in a fouryear residency program who spends half her clinical time at Grand River Hospital and the other half at Hamilton Health Sciences, is undertaking a study to evaluate the effectiveness of simulation training on medical student's knowledge and confidence in pediatric resuscitation.

A major challenge in medical education is the ability and need to apply large amounts of theoretical knowledge to the management of patients, especially those that are acutely ill in the case of resuscitation. This need also requires a systematic approach to a problem, and the ability to work well within a team.



Dr. Diana De Santis Pediatric Resident

Simulation has been consistently shown to help bridge the gap between each of these areas. Benefits include but are not limited to providing the opportunities to apply theoretical knowledge to practice and acquire new skills in a safe environment, as well as aiding in teamwork skill development and developing a systemic approach to otherwise infrequently encountered medical emergencies.

Specifically, it has been shown to be superior to other forms of practical learning such simple use as of mannequins as used during other forms of life support training. Simulation training is also supported by medical learning theory in that it addresses the concepts of "knowing", "knowing how", "showing how" and "doing". The pediatric resuscitation simulation training that occurs for medical learners at GRH includes a threehour theory component and a three-hour hands-on simulation component.

In order to address the objectives of the research, pre-and post-test questionnaires will be administered to McMaster's Waterloo Regional Campus learners who are currently within the clerkship level of training (clerkship learners have completed their classroom education and are undertaking their first opportunities within a clinical setting) to evaluate self-reported reactions to conducting practice techniques. The survey tools ask learners to self-evaluate their level of comfort and knowledge of treatment, equipment and clinical application.

Once learners have participated in the simulation training, the test is readministered to determine the level of improvement in those same areas. Over the course of a year and a half, it is hoped that approximately 60 clerkship learners will participate in the research project. Currently, McMaster medical school students completing their clerkship

Pictured Below, Dr. Fox (left) performs a pediatric demonstration in the simulation lab at GRH.



The GRH/McMaster simulation lab at the KW campus opened in early 2019. The sim lab is offering simulation training in pediatrics and emergency medicine,
but is equipped to offer simulation experience for adult, pediatric, and neonatal simulations



rotations are provided curriculum based simulation training in pediatrics, anesthesia, emergency medicine and internal medicine.

Dr. De Santis has a passion for community based pediatric consulting and medical education and hopes to keep her career in a community setting similar to Grand River Hospital. In a message to her colleagues, she stressed to "stay focused on things that you are passionate about. Research is a commitment of time and effort. Be involved in areas where you think you can provide impact based on your area of expertise and [make] a positive impact to the research community."

While data is still being collected and analysis is still required, it is believed that this study will show a positive outcome of simulation training in our community medical student population, which would then support the continued inclusion of this curriculum into medical training and allow simulation training programs to be expanded to include other areas of medicine at McMaster's Waterloo campus. Finally, on a larger scale, the study team hopes to be able to advocate for similar training for medical schools across the country, so that all junior doctors have increased confidence and competence in the critical skills of resuscitation.

Dr. De Santis completed her medical training at McMaster's Waterloo Regional Campus. It was here that she met and began working with Dr. Mallory Fox, a GRH physician specializing in pediatrics, assistant clinical professor for the pediatricsprogramatMcMasterUniversity, medical lead for the simulation training program at GRH, and a fellow Waterloo campus graduate. Dr. De Santis is also the Resident education resource person for Pediatric Simulation at the Hamilton McMaster campus, working directly with the physician lead to develop simulation scenarios for pediatric residents.

McMaster's Waterloo Regional Campus is a unique setting for medical education, with the majority of medical training taking place in the community as opposed to tertiary care centres. Studies have shown that the decision to practice rural and community medicine is associated with having completed medical training in a community regional campus

Supplementing donor milk in

Partnerships between hospitals and academic institutions often bring benefits to both organizations, as well as teachers and learners.

At Grand River Hospital (GRH), these arrangements also bring the opportunity to facilitate research locally, to benefit patients in our own communities and shape the way that care is provided today, and in the future.

Dr. Tasha Stoltz, a third year physician-intraining from McMaster University spends half of her time at GRH, and the other half at McMaster Children's Hospital, learning to care for young patients.

"Each resident or physician-in-training completes a research project," she explains.

"This research idea came about in the hospital's Neonatal Intensive Care Unit, when we noticed that our most vulnerable patients weren't growing."

Dr. Stoltz worked with GRH registered dietitian Lynn Rogers, as well as consulting pediatrician Dr. Jodi Rosner, also an Assistant Professor with McMaster University, as a research guide to complete a retrospective patient chart review. Donor breastmilk has been shown to protect against necrotizing enterocolitis (NEC), a devastating disease that carries high morbidity and mortality for neonates. Some experts suggest that donor milk leads to slower growth but that infants have fewer feeding intolerances compared with infants who do not receive breastmilk.

"Donor breast milk has been shown to be advantageous, but many studies only consider the most premature and low birth weight babies," says Dr. Stoltz.

"We wanted to know if we would see those same benefits of donor milk in our relatively lower risk babies, especially since babies that do receive donor milk tend to be slower to grow and need additional supplementation to help them gain weight."

This is the first study conducted on the specific neonatal population at GRH, though donor breast milk has been used for supplementation in the hospital's NICU since October 2017.



lower risk neonates in the NICU

The review, which examines the differences of donor milk supplementation and nutrition via other means of supplementation, compares infants admitted to the NICU before the introduction of donor milk at GRH and after.

The study looks at outcomes within the infants' NICU admission, including rates of necrotizing enterocolitis (NEC), feeding intolerance, and growth suppression.

Data collection and final results are still being facilitated.

If it is revealed that donor milk is beneficial for decreased complications and growth of lower risk babies in the NICU, the study could have an impact on the planning and budgeting for donor milk, a cost incurred by Grand River Hospital.

The study team hopes it will act as a model to inspire donor milk as an option at more community hospitals.

"Research is so important at Grand River Hospital," explains Dr. Rosner.

"We accommodate the learning of many medical students and residents around the hospital and support them in their research learning to enable them to continue to innovate in their care, throughout their career.

Medicine doesn't stand still, it is always changing. We always need to be exploring new ways to provide the best care for our patients," Dr. Rosner continues.

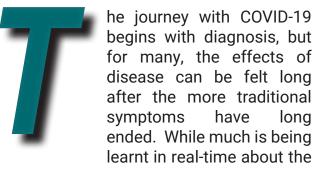
"Research, right here at home, allows us to interpret study results for our own community."

> "With Grand River Hospital already having an established donor milk program we felt it was a great opportunity to explore whether supplementing with donor breast milk over other means of supplementation can lead to better outcomes."

> > Dr. Tasha Stoltz, Physician-In-Training McMaster University



Recovery from COVID-19



COVID-19 disease, Dr. Marla Beauchamp, with McMaster University, is leading a team looking into the future at the longterm effects on those who have contracted COVID-19.

More than 100 patients over the age of 40 have been recruited to date and will be followed over the course of 1-year post-discharge from hospital to monitor their recovery from COVID-19. lt is known that older adults and those with chronic underlying health conditions are the most susceptible to COVID-19 and its complications. Although there has been a rapid and coordinated response to studying the effects of COVID-19 in the acute stages, little is known about recovery over the longer-term. Hospital stays often result in little time out of bed, leading to loss in muscle strength. Adding the additional complication of frailty while recovering from COVID-19 can rapidly lead to physical deconditioning.

Dr. Rebecca Kruisselbrink, Internal Medicine Specialist at both Grand River & St. Mary's General Hospitals, and co-investigator on the study, is leading recruitment locally. Participants will complete in

an assessment of their functional recovery at hospital admission, hospital discharge and 3-, 6-, 9-, and 12-months following their discharge from hospital. Using instruments tools that collect data on basic mobility, daily activities, and cognition, participants will self-report on a number of questions on a scale from 'unable to perform' to 'no difficulties'. Similarly, functional independence will be assessed to determine to what extent participates require support ranging from 'total assistance with helper' to 'complete independence with no helper'. Frailty, quality of life, anxiety and depression, fatigue, and pulmonary function, will also be monitored throughout the course of the study.

Often referred to as 'long-haulers', many patients experience ongoing, lingering symptoms following the conclusion of their initial infection with COVID-19. Some of these symptoms have been described as fatigue, breathlessness, sensitive skin, joint pain, numbness on lower limbs and

"Understanding the trajectory of functional recovery of older hospitalised patients with COVID-19 in the short- and long-term is critical to improving patient outcomes and informing health and rehabilitative interventions for survivors"

Dr. Marla Beauchamp

The long-term impacts

arms, and even hair loss. "The post-COVID illness is a real thing and we hope to be able to put descriptors and numbers to it so that better supports and recovery can be put into place," Dr. Kruisselbrink said.

One of the many things local healthcare clinicians identified about the fight against COVID-19 is the need to unify efforts and collaborate with each other to learn more about the virus and its effects on people. The Coronavirus Registry (COREG) - (pronounced as 'courage'), a case registry of patients who have been admitted to hospital with either suspected or confirmed cases of the novel coronavirus disease (COVID-19), was created to document information related to the course of the COVID-19 disease, the disease spread, and possible outcomes. The functional recovery study is an

extension of COREG. Of the patients that

will be followed after discharge from hospital, data regarding the course of their disease during the acute phase has already been collected as a part of COREG. Combining the primary data collection for the recovery study with the information from the COREG registry will allow the team to identify determinants of longterm outcomes for at-risk individuals.

In addition to Grand River and St. Mary's General Hospital participating in the study, participants are also being recruited from St. Joseph's Healthcare Hamilton and Hamilton Health Sciences-General site. Read about all of the research studies occurring with the COREG dataset by visiting www.coregontario.ca.

This research project was made possible by funding provided by the Canadian Institutes of Health Research.

Members of the study planning team meet via Zoom to discuss study implementation.

Left to Right:

Top Row: Carla Girolametto (GRH), Dr. Rebecca Kruisselbrink (GRH & SMGH), Lisa Wolfe (McMaster).

Second Row: Julie Reid (McMaster), Dr. Marla Beauchamp (McMaster), Hope Morrison (McMaster).

Third Row: Dr. Renata Kirkwood (McMaster), Dr. Terence Ho (McMaster), Catherine Young (GRH).

Bottom Row: Sophie Corriveau (McMaster)



Setting the pace for readiness



imulation activities can facilitate rapid organization learning and transformation when implementing new processes. Local investigators Drs. Natalie Needham-Nethercott and Rebecca Kruisselbrink,

along with Dr. Candice Griffin, 3rd year Internal Medicine resident, and registered nurses Diane Polski and Ashley Sayers, highlight this in a project that demonstrates how simulation exercises provide an effective vehicle to evaluate, adapt, and educate healthcare providers on the new Protected Code Blue protocols implemented during the first wave of the COVID-19 pandemic.

Community hospitals house the majority of adult critical care beds capable of invasive ventilatory support within Ontario and are essential in shouldering the burden of the COVID-19 pandemic. Innovative strategies were required to ensure hospitals were prepared for the challenges associated with caring for Covid-19 positive patients. As the first wave swept across the province, immediate and efficient adaptation of infection control measures and protocols were required to prevent possible exposure risks during treatment processes such as a Code Blue resuscitation. The Protected Code Blue response plan policy was introduced, which required a creative, novel solution to ensure widespread rapid uptake of the new policy, institution-wide.

A quality improvement initiative was launched at both Grand River and St. Mary's hospitals, using in situ simulation to facilitate rapid uptake of the new protocol. This was initially born out of a genuine concern for colleagues on the front line, and quickly exploded into a powerful movement that facilitated effective organizational change by promoting safety, stakeholder engagement, and education. From March to May, 2020 approximately 30 multidisciplinary simulations were facilitated using common code blue scenarios and high acuity low occurrence events were simulated. Simulations were conducted across multiple departments in the hospitals, including critical care, general medicine, medical imaging, coronary catheterization lab, renal dialysis, surgery, and labour and delivery. The key objective of the project was to identify and mitigate latent safety threats that may impact patient care or healthcare worker safety during the implementation of the new protocols.

Through rapid cycle simulations, latent safety threats pertaining to the Protected

Identifying Latent Safety Threats: Errors in design, organization, or training that may contribute to medical errors or impact patient and/or care provider safety



Pictured: The operating room team conducts a simulation exercise while other staff members observe

Code Blue protocol, the individual department environment, and team crisis resource management were identified, which resulted in real-time solutions developed and rapidly disseminated.

Identification of these latent safety threats were only possible through rapid cycling of simulations through as many departments as possible. Solutions to identified latent safety threats were often developed during debrief sessions following the simulations and roundtable discussions, and then rapidly disseminated via bulletins to all departments to solidify key learning objectives.

Post simulation surveys found that 73% of participants felt more confident in

safely donning and doffing PPE, 89% had greater understanding of roles and responsibilities, and 87% felt more comfortable in participating in a Protected Code Blue.

For over a decade, in situ simulation has been used as an effective training strategy in high acuity, low occurrence events encountered in emergency medicine and trauma. The team similarly found that it was an ideal modality to ensure institutionwide uptake of key Protected Code Blue processes, with the goal of minimizing exposure risk and maximizing safety for both staff and patients. It also engaged key stakeholders, such as frontline staff, to promote rapid organizational change. Simulation provided a platform that blurred hierarchical lines, enlisting insight and feedback from the entire multidisciplinary team at all levels, allowing for the evaluation and adaptation of the Protected Code Blue protocol to the needs of each department.

Community hospitals are increasingly being recognized as centres of excellence in patient care, and in the midst of one of the greatest global healthcare challenges, may establish themselves as pacesetters in disaster readiness. This quality improvement initiative is an example of innovation arising from community hospitals, using an effective training modality to not only educate staff, but to rapidly and efficiently facilitate organizational transformation. "It was a tremendous opportunity to learn about the power of in situ simulation in promoting safety and preparedness during a crisis, such as the COVID-19 pandemic", Dr. Griffin notes. The team believes that this strategy is beneficial for institutions at all levels as a vehicle to bolster disaster readiness for the next massive healthcare challenge.

The team has submitted their work for journal review, and have presented a virtual poster at the 2020 Society of Critical Care Medicine Congress.



Pictured:

Dr. Needham-Nethercott prepares to lead a team through a simulation exercise



Pictured: Dr. Candice Griffin, 3rd year Internal Medicine Resident and co-investigator on the projects

Tracheostomy in COVID-19 patients

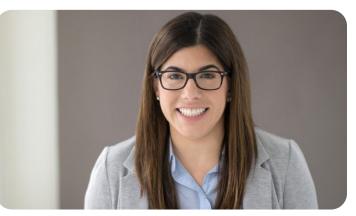
Grand River Hospital (GRH) will participate in a case review of Tracheostomy in Critically III Ventilated Patients with COVID-19. The purpose of the study is to examine the risks and benefits of conducting tracheostomy in this patient population. Dr. Rebecca Kruisselbrink, Joint Chief of Academic Affairs at GRH and St. Mary's General Hospital (SMGH), serves as the Local Responsible Investigator. Drs. Candice Griffin, third year resident, and Jaymee Shell, second year resident, both from McMaster University's Michael G. DeGroote School of Medicine Waterloo Region Campus, are Co-Investigators.

This retrospective case series describes a cohort of nine patients admitted to the ICU at either GRH or St. Mary's General Hospital (SMGH) that were treated for pneumonia or acute respiratory distress syndrome (ARDS) secondary to COVID-19 infection and underwent a bed-side tracheostomy.

Data collected on a number of patient characteristics as well as the clinical outcomes following the procedure. These outcomes are compared to those found in literature (pre-pandemic) to determine if there is a significant difference in the clinical outcomes between COVID-19 positive and COVID-19 negative patients treated with tracheostomy. These outcomes include improvement in airway security, patient comfort and oral hygiene, in keeping with standard of care.

Patient characteristics that will be analyzed include stage of disease and ventilator settings prior to the tracheostomy procedure as well as clinical course. This will contribute to the body of scientific literature for COVID-19. A descriptive analysis will be employed to present the data and outcomes of the procedures.

"Case studies, such as this, provide a wealth of new information for clinicians. Involving medical residents in this process not only enhances and reinforces their learning but helps provide an introduction to research inquiry by the next generation of clinicians" say Dr. Kruisselbrink. Dr. Shell notes that "the opportunity to partner with experienced clinicians in not only the practice of care but the exploration of research has been a wonderful experience as part of my medical education." The team has submitted their article for journal review and anticipate an upcoming publication



Pictured: Dr. Jaymee Shell, 2nd year Internal Medicine resident

A not-for-profit service connecting

Since April 2017, GeriMedRisk has supported doctors, nurse practitioners and pharmacists by addressing medication-related, physical or mental health concerns regarding their older adult patients. When expertise from one or more geriatric specialists may be needed, clinicians can call, fax or eConsult GeriMedRisk with their clinical question and receive a coordinated response from geriatric pharmacy, geriatric medicine, clinical pharmacology and/or geriatric psychiatry and educational materials within 5 business days.

Dr. Joanne Ho, a Grand River Hospital (GRH) and St. Mary's General Hospital (SMGH) geriatrician and clinical pharmacologist and Dr. Sophiya Benjamin, a geriatric psychiatrist at the GRH Freeport campus are the founders of the non-profit clinical and education service. The concept for GeriMedRisk began during Dr. Ho's clinical pharmacology residency training at the University of Toronto and Ontario Poison Center rotation where it became clear there was a need for a telemedicine interdisciplinary service that focused on the prevention of adverse drug events among older adults. Post clinical training, Dr. Ho began working at Grand River with Dr. Benjamin, and from there the GeriMedRisk model evolved to comprise geriatric psychiatry, clinical pharmacology, geriatric pharmacy and geriatric medicine.

A feasibility study among long- term care homes found that GeriMedRisk was able to provide coordinated interdisciplinary consults from geriatric psychiatry, pharmacy, clinical pharmacology and medicine within 5 business days of receiving all necessary clinical information. Subsequent program evaluation revealed a significant hospital diversion rate and in turn, this has decreased drug-related harm, hallway medicine, hospitalization, and health system costs. By using telemedicine, the model supports the growing number of older adults with medical complexity in Ontario while concurrent initiatives to train more geriatric specialists occur.

In three years, GeriMedRisk has grown to become a Ministry of Health funded service available across Ontario to support primary care clinicians, and continues to support longterm care homes and hospitals. GeriMedRisk has been able to prevent hospital visits, facilitate early discharge, and provide rapid geriatric interdisciplinary care to patients in the community, long- term care and acute care. At GRH, hospital pharmacists and physicians have been extremely supportive of GeriMedRisk, regularly attending its geriatric clinical pharmacology monthly educational rounds, and reaching out clinically to support patient transitions of care since 2017.

Partnering with GRH has allowed GeriMedRisk to collaborate with exceptional team members that are also committed to the GRH values of providing exceptional care and

clinicians to geriatric specialists

supporting better outcomes for patients. The Grand River Hospital pharmacy department, led by program director Vickie Murray, has been with GeriMedRisk from the very first call and throughout its growth to support the entire province. GRH pharmacists Dr. Jennifer Tung, Jack Bodkin, and Maha Ghannam are part of the GeriMedRisk clinical team and Danielle Yantha, Clinical Manager with the Specialized Mental Health Services program at the Freeport Campus joined GeriMedRisk in January 2020 to guide the expansion of GeriMedRisk across Ontario.

GeriMedRisk offers a range of training experiences to residents on various inpatient services at GRH and SMGH, as well as introduces them to its telemedicine consultation service where the medical residents contribute to clinical cases, and have the opportunity to learn and collaborate with an interdisciplinary team from pharmacy, clinical pharmacology, geriatric psychiatry and geriatric medicine.

Since 2017, 43 residents internal medicine, from geriatric medicine, psychiatry, geriatric psychiatry, clinical pharmacology, family medicine and emergency medicine, predominantly from McMaster Medical School, have trained with GeriMedRisk, with 22 residents in 2019-2020.

In 2019, GeriMedRisk welcomed Dr. Saumil Dholakia, as the inaugural fellow in the McMaster University geriatric clinical pharmacology and psychiatry clinical fellowship program.

From upper left to right: Dr. Joanne Ho, Jack Bodkin, Dr. Sophiya Benjamin; bottom left to right: Maha Ghannam, Danielle Yantha and Dr. Jennifer Tung



Innovation driven by partnership

All 15 of GRH's clinical programs and services participate in innovation and research activities. Since 2003, GRH has conducted over 80 clinical trials and over 190 research studies. Since 2011, GRH has participated in over 50 innovation and research partnerships. Innovation in health care is a major growth area for GRH covering a broad range including medtech, processes and systems, artificial intelligence, nanotechnology, and quantum physics. Community partnerships help improve the ways GRH delivers safe patient care.

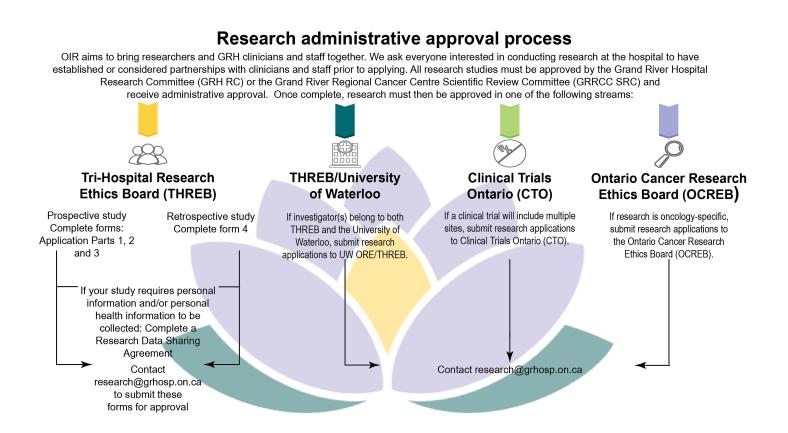
The Office of Innovation and Research is proud to partner with the following organizations to advance exceptional innovation and research and inform our continued efforts to improve how we deliver health care and the health of our community at Grand River Hospital.





Grand River Hospital is dedicated to improving care through innovation and research. The Office of Innovation and Research aims to bring researchers and GRH clinicians and staff together.

We believe that research: enables high performance programs, services, and systems; nurtures effective and collaborative relationships; and promotes best practice through innovation and collaboration. To this end, we take part in and lead a number of research projects to ensure that we remain at the forefront of best practice in care and service provisions. Our research priorities are: Cancer, Chronic Disease Management, Aging Well, Care of Older Adults, Innovation in Healthcare, Patient and Family Experience with Care.



Learn more and apply to do research at Grand River Hospital grhosp.on.ca/research

Contact: Sarah Laferriere, Administrative Officer

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