



Postgraduate Medical Education
UNIVERSITY OF TORONTO

2026 Postgraduate Medical Education

GLOBAL HEALTH RESIDENT RESEARCH SHOWCASE

*An opportunity to share global health research during
postgraduate training*

THURSDAY, JANUARY 29, 2026

6:00 PM - 9:00 PM via ZOOM

WORLD

PROGRAM

6:00pm Opening comment by Dr. Barry Pakes
On Current Challenges in Global Health Research
Moderated by Dr. John Miro Thoracic/Lung Oncology Fellow

6:05pm Abstract 1. A case of concurrent dengue and Plasmodium vivax malaria
in a returned traveler to India: Case report
Dr. Kumudhavalli Kavanoor Sridhar, Medical Microbiology, PGY4

6:15pm Abstract 2. Ethnic disparities in hospitalization after first-episode psychosis among
children and youth in southern Israel
Dr. Hader Sadeh, Youth Psychiatry, Fellow, CAMH

6:25pm Abstract 3. Lifetime Cost-Utility of Endoscopic Versus Open Microdiscectomy for Lumbar Disc
Herniation: A Canadian Healthcare Payer Evaluation
Dr. Jasleen Saini, Neurosurgery, PGY4

6:35pm Abstract 4. Recurrent Pyogenic Cholangitis Unveiling Latent Clonorchiasis in a Filipino Migrant to
Canada: Implications for Diagnosis and Management
Dr. Jamal Tarrabain, Public Health and Preventive Medicine, PGY2

6:45pm Abstract 5. Assessing the environmental impact of cardiovascular surgeries: a systematic review
Dr. Mark Velasco, Cardiovascular Anesthesia & Critical Care, Fellow, Toronto General

6:55pm Abstract 6. A Blind Spot in Global Health: How Economic Disparity Drives a Misalignment
Between Ophthalmology Research and Disease Burden
Dr. Michael Balas, Ophthalmology, PGY2, University of Toronto

7:05pm Abstract 7. Immigrant Status and Work Productivity Loss in Inflammatory Bowel Disease:
A Prospective Cohort Study
Dr. Dropen Tenzin Sheka, Internal Medicine, PGY1

7:15pm Abstract 8. The Prevalence of Presbyopia Among Social Safety Net Beneficiaries in Rural
Bangladesh: Findings from the Transforming Households with Refraction and Innovative Financial
Technology (THRIFT) Trial Dr. Fahmeeda Murtaza, Ophthalmology, PGY3, Kensington Eye Institute,
University of Toronto

7:25pm Abstract 9. Multiple Myeloma Drug Access in Low- and Middle-Income Countries (LMICs)
Dr. Danyal Ladha, Hematology, Fellow, Princess Margaret Hospital

PROGRAM

7:35pm **BREAK**

7:45pm Abstract 10. A novel method of simulation-based training of minimally invasive surgical skills in a low-resource setting: harnessing AI and self-assessment
Dr. Chris Vizona, Advanced Pelvic Surgery, Fellow, Mount Sinai

7:55pm Abstract 11. The SickKids-Ukraine Pediatric Fellowship Program:
A Model of Bidirectional Learning in Global Pediatric Neurosurgery
Dr. Marinelle Castro, Pediatric Neurosurgery, Fellow, SickKids

8:05pm Abstract 12. Amubarvimab-Romlusevimab as a therapeutic modality for patients with SARS-CoV-2: a meta-analysis
Dr. Toni Li, Emergency Medicine, PGY3

8:15pm Abstract 13. Sex differences in ischemic stroke outcomes among young adults in Ontario.
Dr. Hibo Rijal, Internal Medicine, University of Toronto

8:30pm Abstract 14. Mapping Gastrointestinal Endoscopy Training Initiatives in Low and Middle-Income Countries: A Scoping Review
Dr. Khadija Haris, General Surgery, PGY3

8:40pm **DISCUSSION AND CLOSING REMARKS**

9:00pm **END**

ABSTRACTS

1. A case of concurrent dengue and Plasmodium vivax malaria in a returned traveler to India: Case report

Author 1. Kumudhavalli Kavanoor Sridhar, Medical Microbiology, PGY4

Author 2. Fahad Buskandar, Infectious disease, ID staff

Author 3. Manreet Dhaliwal, Infectious disease, Transplant ID Fellow

Author 4. Gordane V. Calloo, University of Toronto

Author 5. Andrea K. Boggild, MM, ID, tropical disease unit TGH

Background

Dengue and malaria are common vector-borne diseases and are associated with high morbidity and mortality. Co-infection of malaria and dengue is underestimated due to the parsimonious approach to testing once the diagnosis of either is made. We present a case of dengue and Plasmodium vivax co-infection in a returned traveler from an endemic region.

Case Summary

A 27-year-old man of Indian origin from Southern Ontario took a 2-week trip India to visit his friends and relatives (VFR) and developed fatigue, myalgia, headache and generalized weakness 10 days following his return. He presented to the emergency department (ED), when his symptoms worsened with fever and chills and his complete blood count was notable for mild anemia with moderate lymphopenia of 0.3109/L and profound thrombocytopenia of 66 109/L. The initial work up by rapid diagnostic test for malaria demonstrated non-falciparum malaria and thin smear showed a parasitemia level of 0.7%. Along with infectious investigations including blood cultures and serologic testing for dengue virus, he was started on Atovaquone/proguanil 1000/400mg daily for 3 days. While seen in follow-up 5 days after discharge for ED, his malaria was identified as *P. vivax*. As such, he was started on primaquine phosphate 30-mg PO daily for 14 days as radical cure. His dengue serologic test reported reactive for IgM and IgG ELISA, confirming the diagnosis of malaria and dengue co-infection. He was clinically stable without bleeding manifestations and repeat parasitemia was 0% with resolution of deep thrombocytopenia.

Conclusion

Dengue and malaria concurrent infection might be commoner than previously estimated. Patient presenting with either infection acquired from an endemic area for both along with low parasitemia level, moderate to severe thrombocytopenia and leukopenia and bleeding manifestations might clues for concurrent infection.

ABSTRACTS

2. Ethnic disparities in hospitalization after first-episode psychosis among children and youth in southern Israel

Author 1. Hader Sadeh, Youth Psychiatry, Fellow, CAMH

Background

First-episode psychosis (FEP) during childhood and adolescence is a critical stage with lasting clinical and social implications. Ethnic and socioeconomic disparities can shape help-seeking behaviors, treatment pathways, and outcomes. Southern Israel, home to both Jewish and Bedouin populations, offers a unique opportunity to examine how ethnicity influences early psychosis presentation and care.

Methods

We conducted a retrospective cohort study of children and adolescents aged 18 years and under diagnosed with FEP at Soroka University Medical Center between 2008 and 2023. Demographic, clinical, and treatment characteristics were compared between Jewish and Bedouin patients. Multivariable logistic regression and machine-learning models (XGBoost with SHAP interpretation) were used to identify predictors of psychiatric hospitalization, adjusting for demographic and clinical covariates.

Results

Of 363 identified cases, 238 met inclusion criteria (123 Jewish, 115 Bedouin). Symptom profiles and overall severity did not differ significantly between groups. Bedouin youth experienced longer durations of untreated psychosis were more likely to seek traditional healing. Despite comparable severity and risk profiles, hospitalization was markedly less frequent among Bedouin youth (15.6% vs 53.2%; $p < 0.001$). Bedouin ethnicity remained independently associated with lower odds of hospitalization (adjusted OR 0.17, 95% CI 0.08–0.40). In the XGBoost model, ethnicity was the strongest predictor of hospitalization, outweighing clinical severity and risk symptoms.

Conclusion

Ethnicity was the dominant determinant of psychiatric hospitalization following FEP, surpassing the effects of clinical and risk variables across both statistical and machine-learning analyses. Cultural and structural factors appear to strongly influence hospitalization decisions. Culturally responsive, equity-focused strategies are needed to reduce disparities and improve timely access to care.

ABSTRACTS

3. Lifetime Cost-Utility of Endoscopic Versus Open Microdiscectomy for Lumbar Disc Herniation: A Canadian Healthcare Payer Evaluation

Author 1. Jasleen Saini, Neurosurgery, PGY4

Author 2. Paul Tieu, Faculty of Medicine, Medical Student

Author 3. Christopher Noel, Otolaryngology - Head and Neck Surgery, Staff

Author 4. Christopher Witiw, Neurosurgery, Staff

Background

Lumbar disc herniation is a major global cause of disability, and microdiscectomy remains a widely performed procedure. Endoscopic microdiscectomy (EM) is increasingly adopted due to its minimally invasive design, yet its long-term economic value in publicly funded systems remains uncertain. Evaluating cost-effectiveness within a Canadian context is essential for informing practice and policy.

Objective

To compare the lifetime cost-utility of EM versus open microdiscectomy (OM) for symptomatic lumbar disc herniation from a Canadian healthcare payer perspective.

Methods

A three-state Markov model (Responder, Non-responder, Death) was developed with annual cycles over a lifetime horizon. Transition probabilities were informed by randomized controlled trials and systematic reviews. Costs reflected a Canadian public payer perspective, including surgical, complication, and follow-up care. Utilities were assigned using responder-based estimates. Deterministic and probabilistic sensitivity analyses assessed uncertainty. Outcomes included incremental cost-effectiveness ratios (ICERs) and net monetary benefit (NMB) at a willingness-to-pay threshold of \$50,000/QALY.

Results

EM produced slightly higher lifetime QALYs (+0.042) at a marginal additional cost (+\$18), resulting in an ICER of \$434/QALY and positive incremental NMB. However, results were highly sensitive to small changes in failure/recovery probabilities and EM's index cost. Probabilistic sensitivity analysis showed substantial overlap between strategies, with EM preferred in 55.2% of simulations.

Conclusion

EM and OM yield nearly identical long-term health and economic outcomes, with no clear cost-utility advantage once uncertainty is incorporated. Within Canada's single-payer system, procedure selection may rely more on local cost structures, surgeon expertise, and patient preferences than on differences in long-term economic value.

ABSTRACTS

4. Recurrent Pyogenic Cholangitis Unveiling Latent Clonorchiasis in a Filipino Migrant to Canada: Implications for Diagnosis and Management

Author 1. Jamal Tarrabain, Public Health and Preventive Medicine, PGY2

Author 2. Keshini Abeyewardene, Family Medicine, PGY2

Author 3. Greg Hawley, Family Medicine, Tropical Disease, Fellow

Author 4. Andrea Boggild, Infectious Diseases, Tropical Disease, Staff

Background

Clonorchiasis, caused by *Clonorchis sinensis*, is endemic to East Asia but increasingly encountered in non-endemic regions through global migration. Chronic infection can result in recurrent pyogenic cholangitis (RPC) and other hepatobiliary complications, posing diagnostic challenges outside endemic settings.

Objectives

To describe a case of suspected clonorchiasis presenting as RPC in a migrant patient in Canada and to highlight key diagnostic and management considerations when stool testing is negative.

Methods

Clinical presentation, laboratory findings, imaging, and management were reviewed for a 39-year-old Filipino woman with cholestatic liver enzyme elevation and recurrent right upper quadrant pain. Diagnostic evaluation included stool ova and parasite (O&P) testing, serologic workup, and abdominal imaging. Empirical praziquantel therapy was administered.

Results

Despite negative stool O&P results, imaging demonstrated features consistent with RPC. The patient received praziquantel 1800 mg three times daily for two days, resulting in symptomatic improvement and biochemical stabilization. Imaging follow-up was planned to assess resolution.

Conclusions

Clonorchiasis in non-endemic settings may be difficult to confirm due to low O&P sensitivity and non-specific symptoms. Epidemiologic context and imaging can raise suspicion even when stool tests are negative. Early empirical treatment may prevent progressive hepatobiliary injury and reduce long-term malignancy risk. Clinicians should consider clonorchiasis in migrants presenting with unexplained cholestasis or RPC.

ABSTRACTS

5. Assessing the environmental impact of cardiovascular surgeries: a systematic review

Author 1. Mark Velasco, Cardiovascular Anesthesia & Critical Care, Fellow, Toronto General

Background

Climate change is a major health threat, with hospital and healthcare as key contributors. Cardiovascular surgery is highly resource-intensive, producing significant emissions, waste, and energy use. Yet, its footprint remains insufficiently characterized. Understanding these drivers is essential to guide mitigation strategies and inform evidence-based policy for sustainable surgical care.

Methods

A systematic literature review was conducted in accordance with PRISMA guidelines to examine the environmental impact of cardiovascular surgery. Peer-reviewed sources published from 2013 onward were eligible for inclusion and were restricted to English-language publications. The search covered PubMed, Scopus, GreenFILE, Web of Science, and Embase, supplemented by targeted grey-literature searches. All retrieved articles were critically appraised, and a standardized data-extraction form was developed to ensure consistent recording of study characteristics and key outcomes.

Results

Ten studies met inclusion criteria. Cardiovascular surgeries consistently exhibited significant carbon footprints, ranging from 124 to 11,482kg CO₂e/case. Materials such as single-use disposable equipment were the largest contributor (60-89%), followed by HVAC systems (5-27.5%), and anesthetic agents (1-6%). Effective sustainability interventions such as reusable surgical textiles, anesthetic gas reduction programs, HVAC optimization, and medication relocation were typically low-cost, had institutional support, and integrated seamlessly into workflows. Barriers included disposable-dependent supply chains, restrictive waste policies, and lack of procedural-level carbon accounting.

Conclusion

Cardiovascular surgery is a major source of hospital-associated greenhouse gas emissions, yet research remains limited and outcomes inconsistent. Given cardiac surgery's procedural complexity and material intensity, it represents a strategic benchmark for hospital decarbonization. Applying circular economy principles "Reduce, Reuse, Recycle, Rethink" combined with rigorous infection-control standards, sterilization protocols, and robust patient-safety measures offers a practical framework for reducing emissions, improving resource efficiency, and aligning surgical practice with climate-health targets.

ABSTRACTS

6. A Blind Spot in Global Health: How Economic Disparity Drives a Misalignment Between Ophthalmology Research and Disease Burden

Author 1. Michael Balas, Ophthalmology, PGY2, University of Toronto

Background

Ophthalmic conditions causing the greatest disability are concentrated in low- and middle-income countries (LMICs), yet the global research agenda may be shaped by economic capacity rather than need.

Objectives

To evaluate whether ophthalmology research output aligns with disease burden for five causes of vision impairment and to quantify the association between economic factors and research activity.

Methods

Cross-sectional analysis (2011–2021) combining Scopus publications, country-level DALYs (Global Burden of Disease), and economic indicators (World Bank GDP per capita and income group) for AMD, cataract, glaucoma, refractive disorders, and trachoma. Outcomes were publication volume and citation-weighted impact. Multivariable regression evaluated predictors with analyses stratified by income group.

Results

Among 76,936 publications from 204 countries/territories, refractive disorders and cataract accounted for 90.1% of global DALYs but 53.0% of publications, whereas glaucoma and AMD comprised 9.0% of DALYs yet 45.8% of publications. HICs experienced 11.8% of the burden but produced 67.2% of publications and 74.2% of impact. In adjusted models, disease burden most strongly predicted research volume, while economic capacity most strongly predicted research impact.

Conclusions

Global ophthalmology research output is not proportionate to disease burden and is closely linked to economic capacity. Findings support context-specific priorities: discovery-oriented work in HICs and, in LMICs, implementation research and capacity-building to scale proven eye-care interventions.

ABSTRACTS

7. Immigrant Status and Work Productivity Loss in Inflammatory Bowel Disease: A Prospective Cohort Study

Author 1. Dropen Tenzin Sheka, Internal Medicine, PGY1

Author 2. Derrick Chong, Dermatology, PGY1

Author 3. Parul Tandon, Gastroenterology, Staff

Background

Inflammatory bowel disease (IBD) commonly affects individuals during peak working years. Immigrants may face structural and occupational barriers that exacerbate work impairment, but the impact of immigration status on work productivity loss in IBD remains poorly defined.

Methods

We analyzed prospectively collected data from adult patients with IBD who completed the Work Productivity and Activity Impairment questionnaire. Immigration status was the primary exposure. The primary outcome was composite work productivity loss derived from absenteeism and presenteeism. Group comparisons used chi-square and Mann–Whitney U tests. Multivariable linear regression examined adjusted associations between immigration status and productivity loss, controlling for demographic, clinical, inflammatory, and psychosocial factors. Weekly productivity losses were monetized using contemporary Ontario wage estimates.

Results

Among 244 patients with IBD, immigrants (n=82) experienced significantly greater composite work productivity loss than non-immigrants (median 36.0% vs. 15.0%, $p=0.004$). Immigrants reported higher absenteeism and presenteeism despite similar inflammatory markers and psychosocial scores. Immigration status remained independently associated with greater productivity loss after multivariable adjustment ($\beta=0.433$ SD, $p=0.004$). Among employed patients, immigrants lost more weekly work hours (17.9 vs. 8.5 hours/week), translating to an additional \$345 in weekly lost productivity ($> \$17,000$ annually).

Conclusions

Immigrant patients with IBD experience substantially greater work productivity loss independent of disease activity and mental health burden. Immigration status represents a key social determinant of work-related disability in IBD, with significant economic implications.

ABSTRACTS

8. The Prevalence of Presbyopia Among Social Safety Net Beneficiaries in Rural Bangladesh: Findings from the Transforming Households with Refraction and Innovative Financial Technology (THRIFT) Trial

Author 1. Fahmeeda Murtaza, Ophthalmology, PGY3, Kensington Eye Institute, University of Toronto

Background

Uncorrected presbyopia is a major cause of near-vision impairment, limiting engagement in near-vision tasks. In low-resource settings, this disproportionately affects older individuals who are increasingly reliant on emerging technologies for daily living and financial autonomy.

Objectives

To determine the prevalence of presbyopia among older social safety net recipients in Bangladesh who utilize Mobile Financial Services (MFS).

Methods

This cross-sectional study analyzed data from the screening and recruitment phases of the THRIFT RCT conducted in two sub-districts of Kurigram, Bangladesh. Recipients of the Old Age Allowance (OAA) and Widow Allowance (WA) who have presbyopia and pass a smartphone-based test of numeracy, cognition, and dexterity were selected. Of 13,944 beneficiaries screened, 953 participants met all eligibility criteria and were included in the final analysis.

Results

The overall prevalence of presbyopia was 62.6%. WA recipients were 20% more likely to have presbyopia than OAA recipients. 97.3% of recipients had access to a personal mobile phone, but only 23% owned glasses. Prevalence appeared to decrease with advancing age, peaking at 74.7% in the 45–54 age group. This trend was attributable to the study exclusion criteria that disqualified individuals with other age-related impairments, such as cataracts.

Conclusion

Uncorrected presbyopia presents a substantial barrier to digital and financial inclusion among smartphone-capable, low-income safety net beneficiaries. Interventions delivering accessible, affordable near-vision correction should be integrated into MFS programs. The selection bias inherent in the RCT eligibility criteria suggests the true population-level prevalence is likely higher.

ABSTRACTS

9. Multiple Myeloma Drug Access in Low- and Middle-Income Countries (LMICs)

Author 1. Danyal Ladha, Hematology, Fellow, Princess Margaret Hospital

Background

Multiple myeloma (MM) is a hematologic malignancy characterized by proliferation of malignant plasma cells. Despite advances in MM therapeutic options globally, many low- and middle-income countries (LMICs) have limited access to novel therapies, resulting in disproportionately higher rates of morbidity and mortality compared to developed countries. This scoping review aims to determine the current state of access to novel therapies for MM in LMICs.

Methods

The literature search was conducted on the MEDLINE database. Articles were deemed eligible for inclusion if they included patients with MM and discussed therapeutics and outcomes in LMICs. Articles were excluded if they were written in a language other than English or if they focused on other hematologic malignancies (e.g. lymphoma, leukemia). There was no exclusion on the type of article or study. The screening process was conducted using COVidence. One independent reviewer screened the titles and abstracts and then extracted data from all articles as detailed in the Appendices.

Results

15 articles were initially identified; following screening, 7 articles were included in the final analysis. Authors of the included articles represented 20 different countries. The articles highlighted many barriers to drug access including healthcare system limitations, economic barriers, a shortage of hematologists, and lack of adequate infrastructure for diagnostic testing and specialized treatment such as autologous stem cell transplant.

Conclusion

This scoping review highlights significant disparities in access to novel therapies for multiple myeloma in LMICs. A concerted global effort is required to improve drug access for this vulnerable patient population.

ABSTRACTS

10. A novel method of simulation-based training of minimally invasive surgical skills in a low-resource setting: harnessing AI and self-assessment

Author 1. Chris Vizena, Advanced Pelvic Surgery, Fellow, Mount Sinai

Author 2. L Sedabadi, Lecturer, Department of OBGYN, University of Botswana

Author 3. S Mohan, OBGYN, PGY4, Beth Israel Deaconess Medical Center

Author 4. S Hanson, Global Health Program in OBGYN Director, University of Botswana

Background/Introduction

Residency programs in low-income countries face barriers to implementing a minimally invasive surgical curriculum for their trainees.

Objectives

The primary objective of this prospective cohort study was to evaluate the effectiveness of an online laparoscopic simulation-based education platform that utilizes artificial intelligence and peer-review for the development of surgical skills in trainees in a resource-limited setting.

Methods

This study was performed at the University of Botswana's Ob/Gyn residency program at Princess Marina Hospital. Participants were Ob/Gyn residents, who were unfamiliar with minimally invasive surgery. Participants completed open-access online modules on a minimally invasive approach to salpingectomy developed by the Surgical Education Learners Forum (SELF). These included videos, self-assessments, and practice using homemade models from simple elements. Participants uploaded videos of their performance in their homemade box trainer, which were evaluated via peer assessment and AI. Clinical translation of skills was assessed by their ability to perform real cases, under the supervision of faculty.

Results

To date, 6 of the 16 participants (38%) achieved clinical competence in a laparoscopic surgery as determined by the residency program director. In the 11 months since clinical cases began, 40 have been completed including cystectomies, diagnostic laparoscopies, salpingectomies, and hysterectomies. None of the cases have been converted to open, to date. There were no significant adverse events in any of the cases.

Conclusions

This program may be an effective way to develop laparoscopic skills for trainees new to MIGS. Translation into clinical practice needs further study for optimal application in minimally invasive surgical education.

ABSTRACTS

11. The SickKids-Ukraine Pediatric Fellowship Program: A Model of Bidirectional Learning in Global Pediatric Neurosurgery

Author 1. Marinelle Castro, Pediatric Neurosurgery, Fellow, SickKids

Author 2. Eisha Christian MD/Pediatric Neurosurgery/Faculty and Staff

Author 3. James T. Rutka MD, PhD/Pediatric Neurosurgery/Faculty and Staff

Background

Global health education increasingly emphasizes bidirectional learning, a reciprocal exchange that strengthens health systems and promotes equity. Pediatric neurosurgery, requiring multidisciplinary care and context-sensitive decisions, benefits from such models. In Ukraine, systemic challenges and ongoing military conflict create a pressing need for collaborative capacity-building. The SickKids- Ukraine Pediatric Fellowship Program aids Ukrainian pediatric neurosurgeons and fosters knowledge exchange with a Canadian medical center.

Objective

To describe the SickKids-Ukraine Pediatric Fellowship Program as a model of bidirectional learning, highlighting educational impact, reciprocal benefits, and implementation challenges.

Methods

Program activities from 2012 to 2025 were reviewed, encompassing fellow placements in Toronto, advisory visits by Canadian surgeons to Ukraine, and virtual case discussions. Using program reports and participant/faculty insights, we analyzed skill acquisition, knowledge sharing, collaborative learning, and implementation challenges from both Canadian and Ukrainian perspectives.

Results

The program links SickKids with seven Ukrainian cities, allowing clinicians to learn from Toronto experts and share skills locally. Canadian neurosurgeons advise on surgeries and consultations, while local surgeons disseminate knowledge. Shared case discussions foster adaptation to limited resource settings and better understanding of different health systems. Main challenges are travel to and within a warzone, restricted hands-on care, language barriers, resource constraints, and the stressors associated with working in conflict-ridden regions. Ongoing engagement includes virtual forums and broader multidisciplinary collaboration which, to date, have been very successful and meaningful to all parties.

Conclusion

The SickKids-Ukraine Pediatric Fellowship Program illustrates bidirectional learning in global pediatric neurosurgery. By fostering professional growth, cultural exchange, and sustainable collaboration - even amid conflict - such partnerships provide a practical framework for equitable global health education.

ABSTRACTS

12. Amubarvimab-Romlusevimab as a therapeutic modality for patients with SARS-CoV-2: a meta-analysis

Author 1. Toni Li, Emergency Medicine, PGY3

Author 2. Yushu Wang, Cardiology, Staff

Author 3. Nathan Balzer, Emergency Medicine, Staff

Author 4. Guangyu Ao, Nephrology, Staff

Background

The COVID-19 pandemic presented significant challenges to healthcare systems globally, with emergency departments playing a pivotal role in managing the frontline influx of patients. While the World Health Organization (WHO) indicated that COVID-19 no longer met the definition of a public health emergency of international concern, it remains an established and ongoing health issue. The continued emergence of new variants and the phenomenon of post-COVID-19 condition (commonly referred to as long COVID) have a disproportionate burden on under-resourced healthcare systems and marginalized populations, highlighting an ongoing need for innovative and accessible treatment modalities. Amubarvimab-romlusevimab (BR11-196/198), a combination of two neutralizing monoclonal antibodies, has emerged as a promising therapeutic option by demonstrating early antiviral activity against SARS-CoV-2.

Objectives

While there have been case reports describing the mortality and morbidity benefits of amubarvimab-romlusevimab in the treatment of COVID-19, there has been no meta-analysis exploring its therapeutic potential. We present here the first meta-analysis in the literature that evaluates the efficacy and safety of amubarvimab-romlusevimab in the treatment of COVID-19.

Methods

A systematic search of PubMed/MEDLINE, Embase, Cochrane Library, Scopus, Web of Science, and ClinicalTrials.gov was performed from January 1, 2020 to January 1, 2025 for studies comparing outcomes between amubarvimab-romlusevimab treatment and no amubarvimab-romlusevimab treatment in COVID-19 patients. Mortality and disease severity were extracted for meta-analysis. Seven studies involving 1,752 patients were included. A P value of <0.05 was considered statistically significant.

Results

There was no significant difference in mortality (OR=0.90, 95%CI: 0.45-1.79, P=0.76) or disease severity (OR=1.13, 95%CI: 0.82-1.55, P=0.47) between groups.

Conclusions

Amubarvimab-romlusevimab does not improve mortality or morbidity in hospitalized COVID-19 patients compared to no amubarvimab-romlusevimab treatment. Further research is needed with varying therapeutic modalities in different COVID-19 populations.

ABSTRACTS

13. Sex differences in ischemic stroke outcomes among young adults in Ontario.

Author 1. Hibo Rijal, Internal Medicine, UofT, Toronto

Author 2. Moira Kapral, Department of Medicine, UofT, Toronto

Author 3. Jiming Fang, ICES, Toronto

Author 4. Aleksandra Pikula, Department of Neurology, UofT, Toronto

Background

Stroke is a leading cause of death and disability in Canada, with rising incidence among young adults. However, sex differences in stroke recurrence and outcomes in this population remain incompletely understood.

Objectives

We used Institute for Clinical Evaluative Sciences (ICES) data to compare clinical outcomes [myocardial infarction (MI), transient ischemic attack (TIA), recurrent stroke, or death] between young women and men with acute ischemic stroke.

Methods

Using population-based administrative databases, we identified adults aged ≤ 50 years hospitalized with ischemic stroke in Ontario, Canada (2011–2014), matched to community-dwelling controls without prior stroke. Outcomes including MI, TIA, recurrent stroke, death, and composite outcomes were assessed through December 31, 2022. Multivariable Cox proportional hazards models examined associations of age (18–44 vs 45–50 years) and sex; competing-risk models accounted for death.

Results

The study included 2,247 adults with ischemic stroke (43.1% women; mean age 42.3 ± 7.3) and matched controls. Regardless of age or sex, ischemic stroke significantly increased risk of recurrent stroke [HR 24.9], TIA [HR 25.02], MI [HR 3.75], death [HR 1.17], and composite outcomes. Within the ischemic stroke cohort, adults aged 45–50 years had higher risks of vascular events than those aged 18–44 years. Male sex was associated with higher risk of MI [HR 1.5]. Men aged 45–50 years were more likely than women to experience composite endpoints [HR 1.3].

Conclusion

Young adults with ischemic stroke face markedly elevated long-term risks of vascular events compared with matched controls. Older age and male sex confer additional risk, warranting age- and sex-specific secondary prevention strategies.

ABSTRACTS

14. Mapping Gastrointestinal Endoscopy Training Initiatives in Low and Middle-Income Countries: A Scoping Review

Author 1. Khadija Haris, PGY3, General Surgery, University of Toronto

Author 2. Anisa Nazir, PGY1, General Surgery, University of Toronto

Author 3. Michelle Song, Medical Student, University of Toronto

Author 4. Deborah Shinybola, Medical Student Royal College of Surgeons in Ireland

Author 5. Usmaan Hameed, Surgical Oncologist, North York General Hospital

Background

Gastrointestinal endoscopy is a core skill for diagnosing and treating conditions such as gastrointestinal bleeding, malignancy, and obstructive pathology and is an essential component of surgical and acute care systems. However, access to safe, high-quality endoscopy services remains limited in low- and middle-income countries (LMICs). Strengthening capacity through workforce training is central to global surgery, yet scope of published endoscopy training initiatives in LMICs remains poorly defined.

Objective

To conduct a scoping review mapping the literature on GI endoscopy education and training initiatives in LMIC settings.

Methods

We conducted a scoping review using JBI methodology and PRISMA-ScR reporting. A systematic search of MEDLINE, EMBASE, Scopus, and Web of Science was performed for studies published between January 2000 and November 2025. Eligible studies described education, training, or competency development in GI endoscopy (e.g., upper endoscopy, colonoscopy, ERCP) within LMICs. Two reviewers independently screened titles and abstracts; full-text review is ongoing.

Results

Of 364 records identified, 293 were screened after removal of 71 duplicates; 197 were excluded, leaving 96 for full-text review. 61 full-text articles were reviewed across reviewers, with 19 studies provisionally meeting inclusion criteria. Studies were largely descriptive, focusing on capacity, workforce limitations, and training needs. Outcomes were limited to service availability, trainee exposure, and perceived competency, with few assessing objective metrics or long-term outcomes.

Conclusions

Preliminary findings suggest that published efforts to strengthen GI endoscopy capacity in LMICs are increasing but remain largely descriptive, with limited evaluation of competency outcomes or long-term impact. These findings highlight important gaps in the evidence base, including limited use of rigorous assessment approaches and minimal focus on sustainability.

WITH THANKS TO.....

**Postgraduate Medical Education
Global Health Research Showcase Committee**

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Dr. John Michael Miro, Thoracic/Lung Oncology Fellow
Dr. Kavanoor Sridhar, Kumudhavalli, Medical Microbiology Resident
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Special Recognition to.....

Dr. Meredith Giuliani, Associate Dean, Postgraduate Medical Education
Dr. Patricia Houston, Vice Dean, Medical Education,
Temerty Faculty of Medicine and
Postgraduate Medical Education Community
Temerty Faculty of Medicine, University of Toronto

