

LEST WE FORGET



Medical *Imaging*



MESSAGE
FROM THE CHAIR



Finally, Winter 2022 will be almost entirely back to normal. The University continues to plan for a safe return of in-person academic activities. Please check your emails regularly so you understand the most up to date COVID related rules, and stay informed of updated vaccination news.

The new vision for health care in Ontario aligns with the 'Quadruple Aim,' an internationally-recognized framework that designs and delivers an effective health care system. The framework can serve as a compass to guide the direction of the system for both patients and providers for the delivery of high-quality, efficient and patient-centred care. The four objectives of the Quadruple Aim framework are:

1. Improving the patient and caregiver experience;
2. Improving the health of populations;
3. Reducing the per capita cost of health care; and,
4. Improving the work life of providers

As we move into another winter with a still undefeated COVID pandemic we continue to strive for excellence in delivering quality radiology services. To do this we need to look at Quadruple Aim objective #4: the work life of providers. Recently we circulated an article on "physician wellness" by Shanafelt. I encourage everyone to read the article and to reflect on the messaging.

Shanafelt TD. Physician Well-being 2.0: Where Are We and Where Are We Going? Mayo Clin Proc. 2021 Oct;96(10):2682-2693. doi: 10.1016/j.mayocp.2021.06.005. PMID: 34607637.

Dr. Patlas has brought to my attention 3 important publications spearheaded by one of our McMaster radiology residents Dr. Nanxi Zha. Thank you Dr. Zha and Dr. Patlas for shining a light on these important issues.

Zha N, Neuheimer N, Patlas MN. Etiology of Burnout in Canadian Radiologists and Trainees. Can Assoc Radiol J. 2021 Feb;72(1):128-134. doi: 10.1177/0846537120904452. Epub 2020 Feb 28. Erratum in: Can Assoc Radiol J. 2021 Feb 5;:846537121996546. PMID: 32106709.

Zha N, Patlas MN, Neuheimer N, Duszak R Jr. Prevalence of Burnout Among Canadian Radiologists and Radiology Trainees. Can Assoc Radiol J. 2018 Nov;69(4):367-372. doi: 10.1016/j.carj.2018.05.005. Epub 2018 Sep 27. PMID: 30270152.

Zha N, Patlas MN, Duszak R Jr. Radiologist Burnout Is Not Just Isolated to the United States: Perspectives From Canada. J Am Coll Radiol. 2019 Jan;16(1):121-123. doi: 10.1016/j.jacr.2018.07.010. Epub 2018 Sep 17. PMID: 30236858.

Our Academic Department of Radiology Strategic Plan: *Knowledge Advancing Healthcare 2022-2025* is complete! The plan has been presented to, and has been well accepted by, the McMaster FHS Executive. Big thank you to everyone that participated in the strategic planning process. The plan was made to help define what we are as an academic department, what we stand for and where we want to go in the near future. I look forward to sharing more details through further engagement efforts with all of you.

Thank you and stay safe.

Julian Dobranowski

Knowledge Advancing Healthcare 2022-2025: STRATEGY at a GLANCE

OUR Vision

Together, advancing excellence in clinical care, research, and education to become global leaders in radiology.

OUR Mission

We will strengthen and support a culture that fosters excellence in patient care, research and education through discovery, collaboration, innovation, and technology development.

OUR Values

Collegiality: Seeking diversity in perspectives through respect for each other and our partners

Collaboration: Achieving common goals through shared purpose and respect

Equity, Diversity and Inclusion: Promoting a culture that embodies equity, diversity, and inclusion in all we do

Innovation: We will push boundaries and broaden our knowledge in the pursuit of high-quality clinical care, education, technology, and research

Excellence: We commit to delivering the highest quality of clinical care, education, and research every time and all the time

Global Impact: We will be bold in our efforts to provide world-class clinical care, education, and research



Strategic Priorities:

Over the next three years, the Department's activity will be driven by three core strategic priorities to fulfill our ambitious journey to further excellence in advanced medical imaging.



1

Patient Care/ Clinical Practice

Development and adoption of best clinical practices that advance diagnostic and therapeutic imaging to achieve optimal patient and health system outcomes.



2

Education

Promoting teaching and learning across the spectrum of undergraduate and postgraduate studies: embedding life-long learning as a pathway to clinical excellence and innovation.



3

Research

Application of acquired knowledge in the pursuit and development of new ideas through the systemic investigation of facts leading to a positive impact within the field of Radiology.

Building the Strategic Plan: OUR JOURNEY

We heard from our faculty, staff, students and partners in the broader health system through focus groups, engaging best in class, workshops and the Strategic Plan Advisory Group. Our consultation process allowed us to build ideas as a collective, to test and refine concepts to make sure our strategic plan captured what was most important to our people and to advance the Academic Mission.



– MARCH 2021 –

Mission and Values:

Harmonizing our mission and values across Faculty of Health Sciences and McMaster University



– APRIL 2021 –

Dreaming Big:

Engaging best in class around the globe



– MAY 2021 –

Engaging our People:

Engaging our people and partners in ideas for our future



– JUNE 2021 –

Advisory Group Creative:

Generating our vision, priorities and concepts aligned to what we heard from our people



– JUNE 2021 –

Refining our Focus:

Testing draft vision, mission and values and our strategic priorities



– JUNE 2021 –

Drafting the Plan:

Refining our strategic priorities and actionable ways to develop the roadmap for our future



– OCTOBER 2021 –

Strategic Plan launch!

Remembrance Day
LEST WE FORGET

2021 NOVEMBER

Monday	Tuesday	Wednesday	Thursday	Friday
01 CME “Macademia” Presentation 5:00-6:00pm Registration Required	02 6:00pm Visiting Professor EMERGENCY RADIOLOGY Dr. Scott Steenburg	03 7:30am & 12:00pm Visiting Professor EMERGENCY RADIOLOGY Dr. Scott Steenburg	04	05
08 Observed Holiday for Remembrance Day	09	10	11 5:30pm-6:30pm Regional Rounds Dr. Dominik Mertz & Dr. Faizan Amin	12
15	16	17	18	19
22 CME “Macademia” Presentation 5:00-6:00pm Registration Required	23	24	25	26
29	30			



UPDATE

Check out the links from the “MCMASTER UPDATE”!



MacCheck:

After the vaccination
mandate deadline:

Next steps for
students, faculty and
staff

[Back to Mac: What to expect in Winter 2022](#)

[COVID-19 testing centres: Closures & new hours](#)

[Analysis: How the puzzle of viral vector vaccines was solved, leading to today's COVID-19 shots](#)

[McMaster retains top-tier spot in Maclean's university rankings](#)

[McMaster joins Canada's Sustainable Development Solutions Network \(SDSN\)](#)

[Athletics Anti-Racism Advisory Group introduces education campaign](#)

[New study finds easy way to improve hospital soundscapes](#)

[Externs help hospitals with nurse shortage](#)

[Where you'll need to show your MacCheck clearance](#)

[COVID-19 Testing Centre on campus](#)

ACADEMIC UPDATE: Neuroradiology Program



Dr. Luciana Ribeiro
Neuroradiology PD
Associate Professor
Department of Radiology
McMaster University



Dr. Crystal Fong
Asst Neuroradiology PD
Associate Professor
Department of Radiology
McMaster University

We continue to build the academic structure of our program. We worked through the summer developing the first Neuroradiology update for community radiologists. This was presented on September 18, 2021 in conjunction with the Ontario Association of Radiology. Thanks to Dr. Mensinkai who has led this initiative, putting together a comprehensive and relevant set of topics in neuroradiology for our colleagues in the community. The conference was fully virtual and was a huge success with close to 150 attendees. We plan to continue with this initiative, trying to bridge the gap, to increase and improve the knowledge dissemination in neuroradiology across our community radiologists.

We have also been busy planning the third Diagnostic & Neuroradiology Interventional Education Day lead by Dr. Larrazabal. The conference is set to take place on February 18, 2022. Topics in Neurovascular and Neuro-oncology imaging were selected for this year. Dr. Larrazabal has also recruited the help of Dr. Fateme Salehi to lead the Neuro-oncology part of the conference. With the ongoing COVID-19 pandemic the conference will be held virtually again in 2022.

We continue with our two current 2nd year Neuroradiology residents. Dr. Khunsa Faiz is on her second year of training and has been quite busy with several research endeavors. She has recently published a paper in the Canadian Association of Radiology Journal on September 5, 2021, entitled: "Diagnostic errors in a emergency neuroradiology: can we do better?". Dr. Faiz is also working on three different manuscripts entitled "Nanotechnology applications in neuroimaging and treatment", "Role off artificial intelligence in brain tumours - a systematic review", and "MVNT-A Case Report".

Dr. Maheea Siddiqi is also quite busy with the start of her interventional neuroradiology elective second year. She been involved in several research projects bridging diagnostic and Neurointerventional imaging such as studying carotid stents in near occlusion.

As the summer comes to an end, we are excited preparing for our first workshop in Competency By Design for Neuroradiology across Canada led by the Royal College of Physicians and Surgeons of Canada. Our first workshop is happening in the next few days in November 3/4, 2021. We will update the group as the work progresses, as we continue to build the future of Neuroradiology training in Canada.

Dr. Crystal Fong our Associate PD and CBD lead presented in the citywide rounds in September 2021. The principles of CBD education model for all radiologists with the expected soon to be launched CBD model in Radiology. We also held a Neuroradiology retreat on September 16, 2021, where we discussed again the basic principles of CBD in preparation for our CBD workshops in Neuroradiology.

We also welcomed Dr. Mandeep Ghuman as the new site coordinator for St. Joseph's Healthcare Hamilton in September 2021 as Dr. Judith Coret-Simon has left us for retirement. We would like to thank Judith for so many years of contribution, helping us to build and develop the Neuroradiology program at McMaster University.

We are now in the process of selecting our future Neuroradiology trainees for the year of 2023. Currently we have one open spot for a fellowship position to start on July 1, 2023. We have received several prospective candidate submissions and we are in the process of reviewing and interviewing.

The Department of Radiology is in the process of updating their website including the Neuroradiology page. Dr. Crystal Fong has stepped in as a media web designer producing a great logo for the Neuroradiology program (as seen above).

Finally, on behalf of the Neuroradiology team, we would like to wish you a wonderful holiday season full of love, health and peace! See you in next year with more updates!

COMPETENCE BY DESIGN *Starting July 2022*

This month's update reviews "Key Concepts" that all faculty should understand. Please also take the time to review the exceptional Regional Rounds lecture on Demystifying CBME by Dr. Crystal Fong [HERE](#).

Feel free to contact me directly if you have any questions.



Dr. Yoan Kagoma
CBME Lead
(kagomay@hpsc.ca)



Competence
by Design

www.royalcollege.ca/cbd

Key concepts

Milestones

A milestone is the expected ability of a health care professional at a stage of expertise. CanMEDS milestones illustrate the expected progression of competence from novice to mastery associated with each enabling CanMEDS competency. Every discipline will have hundreds of milestones, but for practical reasons you will rely on the educational concept of EPAs as the basis for assessing your residents.

Milestones:

- Illustrate the developmental nature, features, and progression of the competencies
- Assist learners in monitoring their own developmental progress
- Allow individuals to monitor their progress
- Support the identification of learners whose progress is not following the typical development sequence to assist in early intervention
- Guide curriculum development

Entrustable Professional Activity (EPA)

An EPA is a key task of a discipline (i.e. specialty or subspecialty) that an individual can be trusted to perform without direct supervision in a given health care context, once sufficient competence has been demonstrated.⁶ EPAs are a common approach to CBME around the world.

EPAs are linked to a specific stage of the competence continuum. EPAs integrate multiple CanMEDS milestones from various CanMEDS Roles.

Some people think of an EPA as a basket or a bundle that holds numerous milestones. As residents progress through the stages of the continuum, the EPAs become progressively more complex reflecting the residents' achievement of more sophisticated milestones.

Each Specialty Committee creates EPAs that faculty and residents will use as a focus for teaching and learning the abilities that are essential for that stage of the residents' training. EPAs allow for authentic, work-based assessment that is targeted at the daily tasks of a physician.

As a supervisor, you will observe residents as they perform an EPA multiple times and each time you will coach the residents to improve their performance. You may initially refer to the milestones associated with an EPA to inform your feedback on specific elements of the task, but as you become familiar with the EPAs and milestones, you may find that you 'unpack' an EPA (i.e. look at all of the milestones) only to plan your teaching or to help a resident who is struggling to progress.⁷

Competence Committees

Competence Committees will review residents' progress at regularly scheduled meetings over the course of their training and they'll use the RCEPA assessments that you and your colleagues have completed to determine the residents' readiness for promotion to the next stage of the competence continuum.



WANT TO BE A TUTOR? McMaster PBL Tutoring

Are you interested in being a tutor for the Undergraduate Medical Program at McMaster? McMaster medical student pre-clerkship education is delivered primarily through Problem Based Learning (PBL), in which students learn key concepts through case based sessions led by a faculty tutor. Becoming involved in teaching at McMaster as a PBL tutor is a rewarding opportunity for our faculty and one that is highly encouraged by our department.

The curriculum at McMaster includes five Medical Foundation units (MF):

MF 1: Introduction to Medicine, Respiriology, Cardiology	(11 weeks)
MF 2: Renal, Hematology	(8 weeks)
MF 3: GI and Nutrition, Endocrinology, Reproduction	(12 weeks)
MF 4: MSK, Brain and Behavior	(12 weeks)
MF 5: Integration Foundation- Host Defense and Neoplasia, Complexity and Chronicity, Maternal and Child Health Risks and Aging Related Care	(12 weeks)



Dr. Meredith Lynch
JH Staff Rad - UGME Tutor

Tutor responsibilities

Attending training; tutoring weekly sessions with a group of 6-8 students to set ground rules; student roles; objectives and content; marking Concept Application Exercises; and, completing student evaluations at mid term and end of block.

Scheduling/Time Commitment

Sessions run twice a week for three hours, usually Monday and Thursday or Tuesday and Friday. You have the option to be a "Co-Tutor" which reduces the commitment to only once per week. Sessions can run as late as 9 pm, so evening sessions are also available. A few extra hours are required periodically for evaluations and meeting with students.

Tutor Training

PBL Tutor training is offered through McMaster Program for Faculty Development <https://www.macpfd.ca/> typically twice a year, January and June. The initial tutor training workshop is called "Tutorial MacEssentials". All faculty interested in tutoring must complete this training prior to being accepted as a tutor or co-tutor.

McMaster's Program for Faculty Development also offers more advanced tutor workshops in PBL, online teaching techniques and other topics. Some online resources for the Mac PBL program can be found here:

<https://www.macpfd.ca/pillars/inspired-teaching/inspt-problem-based-learning>

As part of tutor training, tutors are typically observed by an experienced tutor sometime in their first year and given feedback for improvement. Tutorial cases are available on MedPortal and include a tutor guide with basic explanation/refresher of the objectives and concepts that the students should cover.

Benefits of Tutoring

Feedback from our department members who have participated as a tutor or co-tutor highlights a rewarding teaching experience. There are advantages to working with eager undergraduate students who are excited to have a physician as a tutor and especially a radiologist. Many of the tutorials have some simple xrays, US or CT. The students immensely enjoy reviewing these and understanding how the imaging relates to the clinical problem or presentation. There is also learning for the tutor, with updating clinical knowledge.

Feedback from Dr. Meredith Lynch in our department (see contact information below):

"As a co-tutor for MF3 for the past two years I have found this to be a very rewarding and fun experience."

"Students often say they "want more radiology" as part of their training. A few have come to the departments for electives and expressed interest in a career in Radiology."

Each full time faculty member in our department is expected to contribute 400 hours of teaching and educational contributions annually. Involvement as a tutor is an excellent way to obtain a lot of hours, relative to some other activities in our department. It also provides funding to our academic department.

How to get involved

UGME usually sends emails out for tutors a few times a year. UGME Contact is Jen Bowen (bowen@mcmaster.ca)

Dr. Meredith Lynch can be contacted at lynchmer@hhsc.ca for any questions about her experience as a tutor.

MEDRADSCI 3Z06 - Undergraduate Research Projects

During the 2021 Spring and Summer terms, BMRSc students in the McMaster-Mohawk Medical Radiation Sciences Ultrasonography program undertook an elective research course (MedRadSci 3Z06). Under the guidance of supervisors at McMaster University, Mohawk College and affiliated hospitals, students undertook original research projects including ethics application, a 15-page literature review, data collection and statistical analysis, and preparation of a final written report and formal presentation.

The course culminated in a virtual Poster Day during which students formally presented their projects and answered questions from examiners, reflecting a high quality of research work and strong knowledge of their topics. Congratulations to all our students on their significant efforts and impressive achievements during the course! We also thank all our faculty for their support and welcome new supervisors to be involved in future years.

Sunita Nadella
Experiential Education Coordinator
School of Interdisciplinary Science

Megan Britto, MicroPure Imaging Technology in Thyroid Assessment

Supervisors: Dr. Nina Stein, MD Assoc. Prof. Radiology McMaster University and Karen Strike, MScPT, McMaster University Medical Centre

Anthea Chang, How has COVID-19 Changed Ultrasound Practice?

Supervisors: Marcia Smoke, MRT(T), RTT, ACT, MSc, Dr. Tom Farrell, Ph. D Prof. Radiology and SIS McMaster University, Emily Ho, MRT(T), RT(T) (ARRT), BMRSc, Juravinski Cancer Centre

Josephine Mai, An Investigation of Ultrasound Protocols for Pediatric Acute Appendicitis

Supervisors: Dr. Nina Stein, MD Assoc. Prof. Radiology McMaster University Dr. Yongdong Wang, MD Assoc. Prof. Radiology McMaster University; Robert Dima DMS PhD©

An Investigation of Ultrasound Protocols for Pediatric Acute Appendicitis: Detecting Common Mimics and Extra-Appendicular Findings

Josephine Mai¹, Robert Dima^{2,3} DMS PhD(c), Nina Stein^{1,3} MD, MSc, FRCPC, Yongdong Wang^{1,3} MD, Associate Professor
¹McMaster University, ²School of Health Sciences Western University, ³McMaster University Medical Centre

Introduction

Acute appendicitis (AA) is the most common surgical emergency among children presenting to the emergency department with abdominal pain¹. Ultrasonography is recommended as the initial modality of radiological investigation in the evaluation of suspected AA². The objective of this study was to evaluate the feasibility of substituting a conventional complete abdominopelvic ultrasound (C-US) with an abbreviated US protocol (A-US) without compromising the integrity of the diagnostic exam (figure 1).

Complete (C-US)
All solid abdominal organs, the retroperitoneum, bowel and pelvis

Abbreviated (A-US)
Images labeled R/L, appendix or cecum/terminal ileum

Figure 1. Structures included in the C-US versus the proposed A-US.

Results

In round one, Cohen's kappa (k) was calculated using Microsoft Excel to determine the level of inter-reader agreement across and within each of the three categories assessed: (1) appendix not seen, (2) seen and negative for appendicitis, or (3) seen and positive for appendicitis. Cohen's Kappa takes into account chance agreement, which is a weakness that percent agreement is criticized for³. A similar approach was taken for the second round of testing; however, cases were no longer grouped.

Round One	Figure 3: Summary table of calculations for category (1) (n = 30).	Figure 4: Summary table of calculations for category (1) (n = 3).
All Ineligible	Agreement: 27 By chance: 10 Kappa: 0.65 Lower CI: 0.4890 Upper CI: 1.0	(1) Appendix Not Seen Agreement: 2 By chance: 2.1111 Kappa: -0.0163 Lower CI: -0.3710 Upper CI: 0.3387
(1) Negative Appendicitis	Agreement: 7 By chance: 6.3333 Kappa: 0.25 Lower CI: -0.6667 Upper CI: 1.0	(2) Positive Appendicitis Agreement: 3 By chance: 1.5556 Kappa: 0.2341 Lower CI: -0.1685 Upper CI: 0.6168

Figure 7. Summary table of calculations for round two of testing (n = 10).

Round Two

Agreement: 8
By chance: 1.4
Kappa: 0.3023
Lower CI: -0.0508
Upper CI: 0.6554

Figure 8. Case in which Dr. Wang reported the presence of fatty liver while Dr. Stein stated no fatty liver was evident, a discrepancy that arose due to subjective judgement.

Figure 9. Mesenteric adenitis, later clarified by the radiologists to be excluded from extra-appendicular findings.⁴

Discussion

Round One
Close to perfect agreement (k = 0.85) was seen regarding how the radiologists sorted the exams by category (i.e. not seen, negative or positive appendicitis). However, according to figures 4, 5 and 6, the k values did not indicate levels beyond fair agreement within each category. The lowest level of agreement was seen with category (1) appendix not seen, in which radiologists were to then classify the exam based on whether extra-appendicular findings were not concerning, specific or non-specific. A clear definition was lacking for the classification of specific and non-specific extra-appendicular findings (eg. fatty liver, hepatomegaly, pelvicectasis, echogenic debris in bladder, echogenic porta tracts, etc.). Clarification of the various extra-appendicular findings are needed in the future to achieve harmonious institutional agreement. These barriers guided the development of a novel grading matrix, in which a series of yes/no questions would lead the rater to 1 of 24 unique ratings.

Round Two
It was hypothesized that a higher level of agreement could be achieved after modifications were made to the scale. The results indicated a slightly higher level of agreement, still within the range of fair agreement (0.21 to 0.40).⁴ Further clarification towards the classification of a definite extra-appendicular pathology may be required.

Limitations
Sample size: Increasing the number of subjects would maximize the statistical power.⁴ The kappa confidence intervals for small samples is likely to be quite wide, resulting in "no agreement" (k = 0) being within the CI.⁴

Varying sonographer experience: An inconsistency in the quality of images may have impacted the radiologists' ability to provide accurate interpretations, thereby skewing the level of agreement between readers.

Conclusion
Moving forward, additional calibration and adjustment to the decision tree matrix is necessary prior to its application to the grading of complete (C-US) and abbreviated (A-US) protocol exams to determine whether there is an acceptable amount of agreement. A minimum k value of 0.7, indicating substantial agreement, would be ideal. This knowledge will provide insight towards the feasibility of implementing an abbreviated protocol for the detection of pediatric acute appendicitis in the emergency department.

Acknowledgements
I would like to thank Dr. Wang and Dr. Stein for their guidance and support throughout the project. I would also like to extend my gratitude to Robert Dima.

References

1. Sandhu, K., Hanna, M., Bhat, L., & Scott, B. (2017). Ultrasound in the diagnosis of acute appendicitis: A meta-analysis. *Journal of Ultrasound in Medicine*, 36(10), 1917-1924.
2. McKinlay, M. J. (2012). *Immunology*. Elsevier Health Sciences.
3. Fleiss, J., & Cohen, J. (1961). The kappa statistic for reliability. *Biometrics*, 17(3), 354-361.
4. Steh, J., & Wright, C. (2005). The kappa statistic in reliability studies: Use, interpretation, and some alternatives. *Physical Therapy*, 85(2), 296-301.
5. Fleiss, J. L., Levin, M., & Paik, S. D. (1981). *Assessing agreement of qualitative data*. American Journal of Orthodontics, 79(1), 17-26.

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MEDRADSCI 3Z06 - Undergraduate Research Projects

Xi Yao Xu, Cortical Thickness of Axillary Lymph Nodes post COVID-19 Vaccination

Supervisors: Madison Berg MRT (DMS), BMRSc, Grand River Hospital Meaghan Jefferson BHSc, RDMS, RVT, CRGS, Mohawk-McMaster Institute for Applied Health Sciences and Regy Mathew PhD, RDMS, CRGS, Mohawk-McMaster Institute for Applied Health Sciences

The Cortical Thickness of Axillary Lymph Nodes Post COVID-19 Vaccination

Xi Yao Xu, Madison Berg MRT (DMS), BMRSc, Meaghan Jefferson BHSc, RDMS, RVT, CRGS,
Regy Mathew Ph.D., M.Sc., RDMS, CRGS
McMaster University, Hamilton, ON, Mohawk College, Hamilton, ON, Grand River Hospital, Kitchener, ON

Introduction

- Lymphadenopathy occurs when lymph nodes (LN) are abnormally enlarged
- LNs are considered enlarged when the cortex is ≥ 8 mm (Pinheiro et al., 2014)
- Lymphadenopathy is non-specific and can occur as a metabolic or immune response (Djalani et al., 2014)
- Moderna: 1.1% in vaccine recipients, 0.6% control group (ModernaTx, Inc., 2020)
- Pfizer-BioNTech: 0.8% vaccine group, 0.1% control group (Polack et al., 2020)
- AstraZeneca: 0.8% for both vaccine and control groups (AstraZeneca, 2021)

Methodology

- Waterloo Wellington Breast Centre patients
- Known vaccine history (i.e. date, type, injection site)
- Patients with or without known history of cancer
- Female patients only
- RShutin for Fisher's Exact test for odds ratio
- Excel for graphing distributions and trends

Results

	Vaccinated	Non-Vaccinated	Total
Increased Cortical Thickness	12	6	18
Normal Cortical Thickness	14	9	23
Total	26	15	41

Odds Ratio = 1.28, p-value = 0.764

Downward trend in follow up ipsilateral axillary LN cortical thickness measurements

Increase in ipsilateral axillary LN cortical thickness in follow up 28 days after vaccination

Discussion

- Lymphadenopathy is not specific and can be a result of metastasis, inflammation, or reactive hyperplasia (Djalani et al., 2014)
- Axillary LNs drain deltoid area thus increased cortical thickness is more prevalent ipsilateral to vaccine injection (Hiler et al., 2021)
- Becker et al. (2021) recommended postponing axillary LN imaging evaluations for at least 6 weeks after complete vaccination (Becker et al., 2021)
- Abnormally increased cortical thickness can persist beyond 6 weeks in vaccinated patients

Conclusion

- COVID-19 associated lymphadenopathy can mimic metastatic spread to axillary LNs
- Increased cortical thickness in ipsilateral axillary LN is expected, but contralateral is suspicious
- Vaccine associated lymphadenopathy is estimated to resolve 60 days post vaccination
- Further research should be done in the form of a longitudinal study to achieve more meaningful results

References

1. Djalani, M., et al. (2014) Lymphadenopathy: A Review of Causes and Management. *Journal of the American College of Radiology*, 11(10), 1001-1010.

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Jin Wen Zhang, Role of Contrast-Enhanced Ultrasound in Hepatobiliary and Bowel Applications

Supervisors: Drs. Stefanie Lee MD Assoc. Prof. Radiology McMaster University, Juravinski Hospital and Cancer Centre and Yoan Kagoma, MD Asst. Prof. Radiology McMaster University; Juravinski Hospital and Cancer Centre

Role of CEUS in Hepatobiliary and Bowel Applications A Retrospective Review

Jin Wen (Chloe) Zhang, Dr. Stefanie Lee MD, Dr. Yoan Kagoma MD
Juravinski Hospital and Cancer Centre, McMaster University and Mohawk College

Introduction

Contrast enhanced ultrasound (CEUS) is a relatively new advancement in diagnostic imaging using microbubble contrast (Definity and Luminity used mainly in Canada and Australia, SonoVue and Lumason used widely in Europe, China, United States) injected intravenously to improve visualization of microvascular perfusion on ultrasound (Zhang, et al., 2016).

Through incorporating the ideal properties of the contrast microbubbles (Morin et al., 2007) and the diagnostic abilities of ultrasound contrast, CEUS has gained popularity for its advantages such as being a dynamic real-time measurement, having low incidence of adverse reactions, being non-invasive, and cost-effective.

The purpose of this study is to investigate the role of contrast enhanced ultrasound in hepatobiliary and bowel application. Through a summary of the diagnostic CEUS practices at Juravinski Hospital and Cancer Centre (JHCC), we are looking for certain patterns and limitations that can be compared to findings in the literature and also provide starting points for further investigations.

Methods

- retrospective within board
- McMaster: IRB# 2020-0108 (ethics approval from JHCC)
- retrospective Chart review Approved from JHCC Literature review
- 25 articles summarizing current trends and limitations Data Collection
- retrospective analysis on CEUS procedures documented at JHCC
- Data collected from 35 cases from 50 patients
- Cases completed between Mar 1st, 2017 to June 30th, 2020
- Access to data through Meditech under a secured environment
- Data de-identified using a master key linking personal identifiers to master key
- Analysis
- Data figures generated using Microsoft Excel

Results

Figure 1. Representative image demonstrating focal perfusion pattern (white arrows) in solid liver.

Figure 2. Pie chart displaying percentages of cases for each type of indication for liver CEUS.

Figure 3. Bar graph displaying number of cases per type of indication for liver CEUS over another modality.

Figure 4. Bar graph displaying findings and outcomes for CEUS cases.

Figure 5. Pie chart displaying percentages of cases for each type of indication for bowel CEUS.

Figure 6. Bar graph displaying findings and outcomes for bowel CEUS cases.

Discussion

Liver

- Confirms diagnoses for malignant and benign lesions
- Assess post-obliteration sites
- Screen or rule out pathologies
- Option for patients with renal failure or have previously undergone iodine loading exams
- Findings mostly consistent with further evaluations such as biopsy, gallbladder
- Resolve inconclusive cases from conventional ultrasound
- Assess vascularity of lesion contents
- Provide clues on malignant or inflammatory features
- Limited analysis due to very few cases
- Assess disease activity and complications in patients with inflammatory bowel disease (Crohn's disease)
- Confirms disease activity in asymptomatic patient

Bowel

- Certain grayscale limitations are still found in CEUS
- Large bowel additional imaging causes in many patients
- Assist with solving diagnoses and treatment guidance
- Most findings and limitations consistent with literature

Conclusion

Through analyzing the indications, findings, patient outcomes and management, general patterns are summarized and compared to the findings in the literature. Some major advantages observed include the value being non-invasive, an additional imaging tool for previously inconclusive cases, as well as having good diagnostic abilities in certain pathologies over other modalities. In many cases, the patient's outcomes were improved by avoiding having additional imaging exams and having the CEUS findings guide their treatment plan. However, with some inconclusive and inconclusive cases still observed, certain limitations in this study are also recognized and that the findings would need further investigation before conclusions are made. Nevertheless, the summary shows promising outcomes in CEUS applications in this study and provides directions for future research.

References

1. Zhang, J.W., et al. (2016) Contrast-Enhanced Ultrasound in the Diagnosis of Liver Lesions. *Journal of Ultrasound Medicine*, 35(12), 2101-2106.

2. Morin, R.N., et al. (2007) Contrast-Enhanced Ultrasound: A Review of Current Applications. *Journal of Ultrasound Medicine*, 26(12), 2101-2106.

3. Polack, F.P., et al. (2020) Safety and Efficacy of the Bivalent mRNA COVID-19 Vaccine. *New England Journal of Medicine*, 383(13), 1271-1281.



VISITING PROFESSOR SERIES via ZOOM

EMERGENCY RADIOLOGY

TUESDAY, NOVEMBER 2nd & WEDNESDAY, NOVEMBER 3rd, 2021



Dr. Scott D. Steenburg

Associate Professor of Radiology
Department of Radiology and Imaging Sciences
Indiana University School of Medicine
Indiana University - Purdue University at Indianapolis
IU Health Methodist Hospital

Tuesday, November 2nd, 2021 - 6:00 pm

"Blunt and Penetrating Bowel and Mesenteric Injuries"

Wednesday, November 3rd, 2021 - 7:30 am

"CTA of Peripheral Vascular Injuries"

Wednesday, November 3rd, 2021 - 12:00 pm

"Post-Operative Complications in the ER"



Thank you to Dr. Jim Raptis for his Visiting Professor Abdominal Imaging Presentations on Tuesday, October 5th and Wednesday, October 6th. Dr. Raptis covered topics on "Pulmonary Arteriovenous Malformations and Mimics", "Radiographic Evaluation of Central Venous Catheters" and "Coronary Artery Anomalies and Abnormalities beyond Arteriosclerotic Disease".

SAVE THE DATES 2021-2022

Tuesday, January 11th & Wednesday, January 12th 2022 - Dr. Frank Scholz - Abdominal

Tuesday, February 1st & Wednesday, February 2nd 2022 - Dr. Thanh Binh Nguyen - Neuro

Tuesday, March 1st & Wednesday, March 2nd 2022 - Dr. Mindy Horrow - Ob/Gyn

Tuesday, April 5th & Wednesday, April 6th 2022 - Dr. Daniel B Kopans - Breast

Tuesday, May 3rd & Wednesday, May 4th 2022 - Dr. James D Fraser - Cardiac

Tuesday, June 7th & Wednesday, June 8th 2022 - W Peter Cockshott Memorial Lecture, Dr. Mark Cresswell - MSK

Tuesday, June 28th & Wednesday, June 29th 2022 - Hooker Award Lecture, Professor Steve Halligan

Unless otherwise noted, the times for the series are as follows:

Tuesday presentations 6:00 pm - Wednesday presentations, 7:30 am and 12:00 pm



PEDIATRIC RADIOLOGY

Visiting Professor - October 6th & 7th 2021

2020 and 2021 have had significant impact on the way in which we have been able to deliver our Pediatric Imaging Anniversary educational sessions. This year we were proud to host a lecture series from world experts in Pediatric imaging on topics ranging from Neuro (Dr. K. Koral), Fetal (Dr. E. Miller, Dr. S. Blaser), Cardiac (Dr. M Seed, Dr. B. Saini) and MSK (Dr. M. Breen)- with even more scheduled in the coming months! It was great to see such a good turnout from our residents, fellows and colleagues at these sessions and we received great feedback from our guest lecturers on the quality of interactions they had with our residents! Special thanks goes to Dr. Ali Yikilmaz and Dr. Nina Stein for their continued championing of educational activities within the department and Ms. Rita DiTullio for her admin support throughout the events!

- Dr. John Donnellan, Interim Site Chief, Diagnostic Imaging, McMaster Children's Hospital

Cerebellar Anatomy: Lobes

Anterior Lobe: Anterior to the primary fissure
 Posterior Lobe: Posterior to the primary fissure
 Primary fissure: 21 weeks GA

Blake Pouch Cyst

PF normal or enlarged.
 4th ventricle is open and wide
 Vermis normal/rotated
 Hydrocephalus

Dr. Elka Miller and Dr. Susan Blaser, CHEO
The Hospital for Sick Children
"FETAL MRI"

Dr. Mike Seed and Dr. Brahmdeep Saini
The Hospital for Sick Children
"FETAL CARDIOVASCULAR MRI"

MRI assessment of maternal, fetal and placental cardiovascular physiology

Brahmdeep Saini, B.Eng, PhD
 06 Oct 2021
 Supervisor: Dr. Mike Seed
 Institute of Medical Science, University of Toronto
 Heart Centre, The Hospital for Sick Children

Leave Me Alone!
 Developmental Variants and Benign Pediatric Musculoskeletal Lesions

Dr. Micheál Breen
 MBBChBAO (Hons) BMedSc MRCP FFRCSI DABR FFSEM
 Pediatric Radiologist, Boston Children's Hospital
 Associate Professor of Radiology, NYU

Dr. Micheál Breen
Boston Children's Hospital
"PEDIATRIC MSK RADIOLOGY"

Dr. Korgun Koral
Children's Health & University of Texas Southwestern Medical Center
"CASE-BASED REVIEW OF PEDIATRIC NEURORADIOLOGY"

McMaster University RADIOLOGY HEALTH SCIENCES
 10/6/2021
Case Based Pediatric Brain
KORGÜN KORAL, MD, MBA
 UTSouthwestern Radiology
 children'shealth



Diagnostic Imaging Regional Rounds

Please join us for November's Regional Professor Rounds

Thursday, November 11th
5:30 pm - 6:30 pm

"Covid 19 Epidemiology; Predictions for Winter and Vaccine Status & ECMO as a Therapy in Severe Covid 19"

FEATURING:

Dr. Dominik Mertz and
Dr. Faizan Amin

[CLICK HERE TO REGISTER](#)

COVID 19 Epidemiology; Predictions for Winter and Vaccine Status
ECMO as a Therapy in Severe COVID-19



Dr. Dominik Mertz
Associate Professor,
Division Director Infectious Disease,
Department of Medicine, McMaster Medical
Director,
Infection Prevention & Control, HHS



Dr. Faizan Amin
Assistant Professor
Cardiology & Critical Care
Advanced Heart Failure, Transplantation &
Mechanical Circulatory Support
Medical Director, Extracorporeal Life
Support (ECLS) Program

Objectives

1. Understand the current COVID epidemiology
2. Being able to comment on COVID predictions/models for the winter and beyond
3. Being up-to-date on current vaccine uptake and rules
4. Review the use of ECMO as a form of life support in patients with severe COVID-19
5. Introduce the Extracorporeal Life Support (ECLS) Program at Hamilton Health Sciences

Diagnostic Imaging Regional Professor Rounds
November 11, 2021 | 5:30 p.m. McMaster

Thank You to Dr. Michelle Ghert and Dr. Naveen Parasu

Thanks to Drs. Parasu and Ghert for "terrific session" in the October edition of Regional Rounds! It was a "great review of imaging of soft tissue tumours and pearls for everyday practice" with "extremely relevant and clear take home points tailored for the audience". "The hybrid structure of the meeting with an orthopedic surgeon and radiologist was really great for a topic which can be difficult for non-msk rads. Also very helpful to have the surgical perspective to know how reports are used for decision making." The rounds counted with excellent multidisciplinary audience who formulated appropriate questions and stayed until end.

Thanks to Regional Rounds team: Evan, Tyler, Tori and Dr. Dobranowski for their support and contribution!

- Dr. Ramiro Larrazabal

A Radiologist's Systematic Approach: Diagnosis and Management of Common Soft Tissue & Bone Tumors from an Orthopedic Oncology Perspective



Dr. Michelle Ghert
Professor,
Department of Surgery,
Division of Orthopedic Surgery
Faculty of Health Sciences
McMaster University



Dr. Naveen Parasu
Associate Professor,
Department of Radiology,
McMaster University
Staff Radiologist, Juravinski
HHS

Objectives

1. What do radiologists recommend while reporting fatty and non-fatty soft tissue tumors?
2. When do radiologists ideally refer tumors to an orthopedic surgeon?
3. How may radiologists reduce overcalling benign bone and soft tissue tumors?

Diagnostic Imaging Regional Professor Rounds
October 14, 2021 | 5:30 p.m. McMaster

SAVE THE DATE

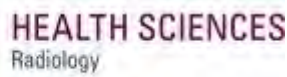
Join us for the next Regional Rounds - **Thursday, December 16th - 5:30-6:30pm**

Featuring Dr. Ali Yikilmaz, Dr. Arun Mensinkai and Dr. Nina Stein with a focus on Interesting Cases



Radiology Rounds by Site 2021

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
NEW! ALL SITES		1700 Peer Learning Education Rounds (2nd Tuesday/month)			
JURAVINSKI HOSPITAL AND CANCER CENTRE	1200 Rad/Path Breast Rounds (@ BAC) 1230 GI DST Rounds (Zoom) 1400 GIUP Rounds (JCC) 1600 Gyne/Onc Rounds (Zoom)	0815 MSK ROUNDS (Zoom) 1200 Resident Rounds (Zoom)	0800 Resident Rounds 0800 Multidisciplinary Breast Rounds DST (3-88-JCC) *Resumes Sept 13th*	0700 Hepatobiliary Rounds (Zoom) 0900 CNS Tumor Board 1000 Neuro Onc Rounds (Fellows) 1200 Resident Rounds (Zoom) 1310 Sarcoma Rounds (Zoom)	0800 Resident Rounds (all rounds in DI Conference Rm) 1100 Head/Neck Rounds JCC 1200 Interesting Case Rounds (Zoom)
HAMILTON GENERAL HOSPITAL	1200 Radiology Teaching Rounds	0700 Spine Rounds 0800 Regional Cardiology Rounds (David Braley Centre, General Campus, Auditorium) 0815 MSK Tumor Rounds (DI Classroom) 1200 Radiology Teaching Rounds 1200 Stroke & Neurovascular Rounds (DI Classroom, Rm 2-158) 1600 Trauma Rounds (Theatre Auditorium) M&M Rounds 1st Tues. of month	0730 Vascular Rounds (5N Teaching Room) 0800 Arrhythmia Rounds (Theatre Auditorium) 1230 M&M Rounds (DI Classroom) set once a month	0800 Stroke Rounds (David Braley Centre, General Campus, Auditorium) 0800 CNS Tumor Rounds (DI Classroom) once a month 0815 MSK Trauma Rounds (Zoom) 1130 Neuro Academic Half-Day Rounds 1230 Interesting Case Rounds	0800 Neuroscience Rounds (David Braley Centre, General Campus, Auditorium) 1200 Radiology Teaching Rounds
MCMASTER UNIVERSITY MEDICAL CENTRE	Pediatric Hot Seat Resident Rounds (scheduled mth to mth) 0800 Pediatric Tumor Board (Every 2nd week – 3F) 1200 Pediatric Neuroradiology Rounds (Room 3N50)	1200 Adult Hot Seat Resident Rounds 1200 PVA Vascular Rounds (1st Tues. of the month) 1300 Neuro-oncology Rounds (3F) 1300 Rheumatology (2nd Tues. of each month)	0800 Adult GI Rounds (Room 2S32) 1200 CPEP-Seizure Rounds (2nd Wed of the month)	0800 Surg/Rad/Path (SRP) Rounds (3rd Thursday of each month—Room 2S32) 0900 Respiratory Rounds (2nd Thursday of each month) 1200 Adult Hot Seat Resident Rounds	1200 GI Ped Rounds (Room 2S32—Every other Friday) **NOTE: Pediatric Resident Rounds are scheduled on a month by month basis - day/time is not always the same**
ST. JOSEPH'S HEALTHCARE HAMILTON <small>(All rounds in DI Conference Room TO102 unless otherwise specified)</small>	0730 Angio Access for Transplant Rounds (feasible Mon. bimonthly) 1200 Ultrasound Rounds (feasible Monday of each month) 1300-1400 Resident Rounds 1630-1730 Thyroid MCC Rounds (2nd Monday of each month) 1630-1730 Head & Neck MCC Rounds (4th Monday of each month)	0800-0900 Vascular Difficult Access Rounds (1st Tuesday of each month) 1200-1300 Interesting Case Rounds (1st, 3rd & 4th Tuesday of every month) ON PAUSE 1200-1300 QA Rounds (2nd Tues. of mth) ON PAUSE 1300-1400 Resident Rounds 1630-1730 Genitourinary MCC Rounds (1st and 3rd Tuesday of every month)	1200-1300 MSK Radiology Rheumatology Rounds (every Wednesday) 1300-1400 Resident Rounds	0730-0800 Colorectal Rounds 0800-0900 Breast Pathology Rounds 1200-1300 MRI Rounds (1st Thursday of every month) 1300-1400 Resident Rounds	1200-1300 Lung MCC Rounds 1300-1400 Resident Rounds



PEER LEARNING EDUCATION ROUNDS (All Sites)

Updated Schedule

The Peer Learning Education Rounds will occur the second Tuesday of every month from 5:00 pm - 6:00 pm now starting in October 2021 with the exception of July and August. Each radiology subspecialty will be the focus twice during the year and **you are expected to make every effort to attend the sessions that apply to your subspecialty**. All are welcome to attend every session.

Please refer to the table below for meeting dates and subspecialties for the 2021-2022 academic year. Details for these rounds will be updated with the specialty for each month.

DATE	SPECIALTY
Tuesday, November 9 th , 2021	MSK
Tuesday, December 14 th , 2021	X-RAY (General/Non-MSK)
Tuesday, January 11 th , 2022	ULTRASOUND (General/Non-MSK)
Tuesday, February 8 th , 2022	BODY – Cross-Sectional, Chest & Abdo (CT/MR)
Tuesday, March 8 th , 2022	NEURO
Tuesday, April 12 th , 2022	MSK
Tuesday, May 10 th , 2022	X-RAY (General/Non-MSK)
Tuesday, June 14 th , 2022	ULTRASOUND (General/Non-MSK)



ANNOUNCEMENTS

NEW MANAGER, INTERVENTIONAL RADIOLOGY, HHS

Natalie Smigielski, Interventional Radiology Manager, Perioperative Services



Natalie Smigielski
New IR Manager
HHS

On behalf of Marcy Saxe-Braithwaite, Director of Perioperative Services, and Sarah Jane Adams, Director of Diagnostic Services, we are pleased to announce that Natalie Smigielski has started her new position with the Peri-operative Services Team as of Monday, October 18th, 2021, as the Clinical Manager for Interventional Radiology for Hamilton Health Sciences.

Natalie's office will be located at the Juravinski Hospital site and she is being supported by admin assistant, Lisa Yanaky.

"Natalie comes to us from Ontario Health – Trillium Gift of Life Network where she has spent the 13 years working in such roles as Tissue Recovery Coordinator, Hospital Development Coordinator, Clinical Specialist and most recently, the Manager for the Provincial Resource Centre – Tissue Program. Natalie will bring with her, experience in Program Development, strategic planning and extensive background in research and organizational leadership to the IR role at HHS.

We look forward to working with Natalie as she continues to forge strong working relationship with our colleagues in Diagnostic Services and the Interventional Radiology stream of the Peri-operative portfolio. Natalie will work collaboratively with Dr. S. Nair to provide the best care possible for our pediatric and adult populations."

Please join us in welcoming Natalie to the DS and Peri-Op Teams at HHS!



*"We would like to extend a big thank you to the Diagnostic Services Managers who provided excellent leadership and support for the IR program for the past few months – **Lyndsay Kowalyk at HGH, Jeanine Risk at JH and Eric Ricker at MUMC...** We are very grateful for your willingness to take on the additional work to provide seamless management for Periop, DI and IR."*

- Marcy Saxe-Braithwaite, Director of Perioperative Services, & Sarah Jane Adams, Director of Diagnostic Services

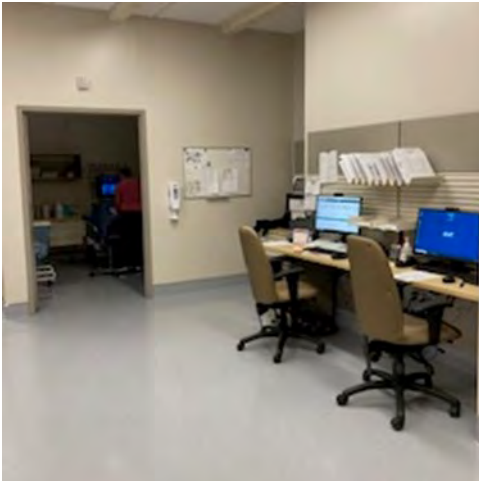


PEDIATRIC RADIOLOGY Update



Dr. John Donnellan
Interim Site Chief, DI, MCH

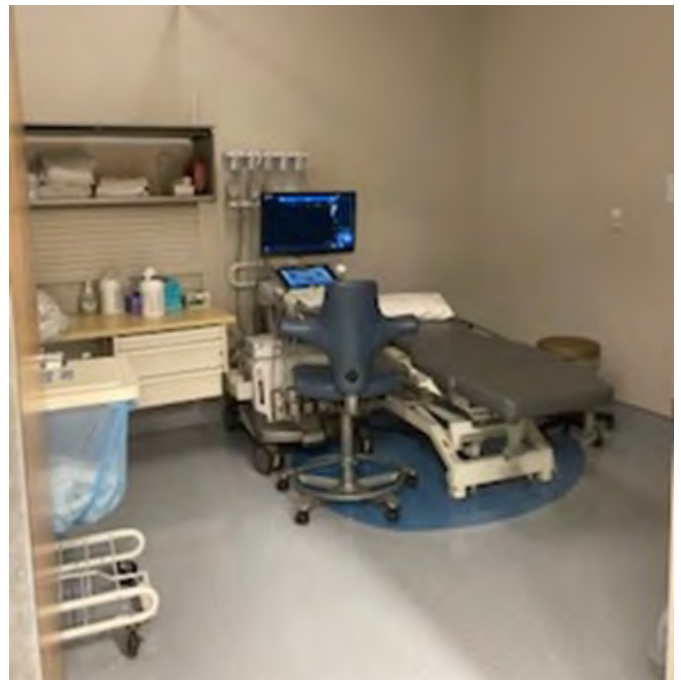
It has been a busy time at the Pediatric Radiology Department at McMaster Children’s Hospital! Since the last newsletter, we have seen the creation of a brand new Pediatric Ultrasound area— complete with new ultrasound units, scanning rooms, workstations and dedicated patient washrooms. It is a fantastic development in the growth of the Pediatric imaging service and it paves the way for construction to begin on the new MRI being installed on Level 2!



The new area, complete with new ultrasound equipment allows for expansion of pediatric scanning capabilities with the addition of Elastography imaging as well as contrast–enhanced ultrasound (CEUS)— both of which were not available at MCH previously. Training will be ongoing with a core group of sonographers to learn how to perform Elastography. Work is ongoing to develop our policies and protocols to make most use of these new technologies – particularly for our Hepatobiliary, Cystic Fibrosis and Urology patients initially but rolling out in quick succession to all those who need the additional information that these techniques can provide. The addition of the third scan room will also allow the pediatric ultrasound wait times to reduce in line with the continued growth and expansion of pediatric services across MCH as a whole.

Lunch & Learn for Ultrasound and MRI

We had a number of very successful and well attended lunch and learn sessions for our techs and physicians since our last newsletter, with Bracco presenting to our MRI department on Contrast Media— as part of our ongoing pilot to test new pediatric contrast media for our MRI department— and Canon presenting to our sonographers on the uses of Elastography in the pediatric setting.



Dairy Queen – Miracle Treat Day – Tuesday, October 26th

Thank you to all the Pediatric Radiologists for sponsoring this year’s Blizzard Treat Day! Staff appreciated the delicious treat on a rainy day.



2nd Annual Ontario Association of Medical Radiation Sciences Virtual Musculoskeletal Ultrasound Education Day

On Saturday October 16th, Hamilton General Hospital ultrasound technologists Sarah Allred and Lisa Billone organized, hosted, and presented at the Ontario Association of Medical Radiation Sciences Virtual Musculoskeletal Ultrasound Education Day. Now in its second year, the goal of this unique conference is to educate sonographers and radiologists on the fundamentals as well as the finer details of MSK ultrasound and its application as a dynamic, powerful yet cost-effective imaging modality for both academic and community-based practice.

As leaders and experts in their field, Allred and Billone recruited a now familiar world-class roster of MSK radiologists that included Dr. Rob Campbell from Royal Liverpool University Hospital UK, Dr. Andrew Grainger from Cambridge University Hospital UK, Dr. Jon Jacobson from the University of Cincinnati, and our own Dr. Tom Mammen from the Hamilton General Hospital. Allred, Billone, and all of their invited speakers once again delivered outstanding, practical, engaging, and informative talks.

The day was an enormous success with over 700 in attendance online from more than 10 countries. With the overwhelmingly positive feedback received and the high demand for education from experts in this expanding imaging subspecialty, the aim will remain to have this continue as an annual event.

*Dr. Michael Colapinto, Staff Radiologist
Hamilton General Hospital*



SARAH ALLRED
RMS, RMSKS
Ultrasound Technologist
HGH



LISA BILLONE
RMS, RMSKS
Ultrasound Technologist
HGH

**VIRTUAL MUSCULOSKELETAL
ULTRASOUND EDUCATION DAY**
October 16, 2021
9:00 am - 3:30 pm (ET)

Complimentary pricing for OAMRS members has been made possible through support from:

OAMRS
SIEMENS Healthineers
ThePersonant



SAVE THE DATE!

DIAGNOSTIC & NEURO INTERVENTIONAL

Education Day

FRIDAY, FEBRUARY 18th, 2022

Time: 8:00 a.m. to 4:15 p.m.

via ZOOM

Zoom details will be provided closer to the event date

A detailed brochure to follow.

This will be an CME Accredited Event.

Registration will be required for attendees.

Dr. Ramiro Larrazabal

Dr. Julian Dobranowski

For Your Information...



For current COVID-19 UPDATES please check the HHS HUB!

Enhanced COVID-19 Vaccine Certificate with QR Code Available for Download

The Ontario government has made the enhanced vaccine certificate with official QR code available for download

⇒ <https://news.ontario.ca/en/release/1000979/enhanced-covid-19-vaccine-certificate-with-qr-code-and-verify-ontario-app-available-for-download-starting-october-15>

FLU SHOTS NOW AVAILABLE at Hamilton Health Sciences EMPLOYEE HEALTH!

The flu shot is now available at the following locations (no appointment necessary):

- JHCC, HGH and MUMC: Monday to Friday, 8:30 a.m. to 3:30 p.m.
- WLMH: Mondays 8:30 a.m. to 3:30 p.m.

Print the [Influenza Vaccine Consent 2021 – 2022 form](#) and read the [information sheet](#) before your visit.

If you receive your flu shot outside of EHS, be sure to ask for documentation to provide to EHS to complete your records. Click to follow links.

Personal Protective Equipment (PPE) Requirements

COVID Non-Low Epidemiology

Patient status	Droplet Contact (COVID Risk)		Droplet Contact (For all other Pathogens)		Negligible COVID Risk Patients	
	Routine Care	Aerosol Generating	Routine Care	Aerosol Generating	Routine Care	Aerosol Generating
Surgical/ Procedure Mask 				 COVID NPS Negative	 Universal Masking	 COVID NPS Negative or COVID Immune***
N95 				 COVID NPS Pending		 COVID NPS Pending
Face Shield or Goggles 	 All Patient Facing Activity with Unmasked Patients Requires Eye Protection					
Gloves any type Gown based on risk of BBF** exposure		 Fluid Resistant		 Fluid Resistant	PCRA*	PCRA*



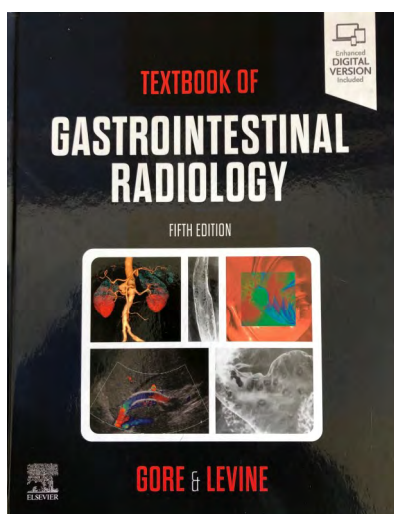
Namita Sharma
3rd year Medical Student

**CONGRATULATIONS, 3rd year Medical Student!
Namita Sharma!**

“Dr. Crystal Fong and I would like to congratulate Namita Sharma (third year McMaster medical student) for recently having presented at the 2021 International Conference on Residency Education, along with Dr. Shauna Kennedy from Hamilton General Hospital.”
- Dr. Stefanie Lee

Sharma N, Lee SY, Kennedy S, Fong C. **Development and implementation of a tool for faculty evaluation of residency programs.**

Presented at the 2021 International Conference on Residency Education Annual Conference, October 20-22, 2021.



CONGRATULATIONS to Dr. Sat Somers as his most recent contribution was to the **5th edition** of the **Textbook of Gastrointestinal Radiology**. The editors are Dr. Richard Gore and Dr. Marc Levine. The book has just been published. It is available in hard copy as well as online. Dr. Igor Laufer was the senior editor in the original edition of this book.



Dr. Sat Somers
Professor
Department of Radiology
McMaster University



Canadian Association of Radiologists
L'Association canadienne des radiologistes



Dr. Fateme Salehi
Assistant Professor,
McMaster University;
Staff Neuroradiologist,
Juravinski Hospital

“Dear Dr. Salehi,

We are pleased to inform you that you are being recognized with a 2021 Canadian Association of Radiologists Journal Outstanding Reviewer Award.

Of the more than 100 individuals volunteered as peer reviewers on behalf of the Journal in 2021, you were distinguished by the number, quality, and timeliness of your reviews.

Please accept our congratulations on behalf of the Journal office, along with the attached letter and certificate for your records. The February 2022 issue of the journal will feature an editorial recognizing you and the other recipients of the award. We will also be highlighting outstanding reviewers on social media and in CAR communications in the coming weeks.

Thank you for your ongoing dedication to the work of the CARJ, and to the advancement of radiology research and scholarship in Canada. It is a pleasure to work with you.

Kind regards,

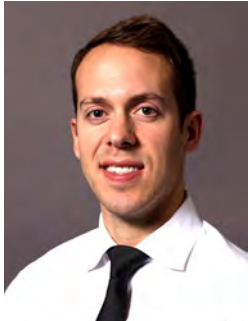
CARJ Team”



Congratulations to **all of our department members** that have upcoming presentations at this year's Radiological Society of North America 2021 Annual Meeting and Conference



RSNA® 2021
REDEFINING RADIOLOGY
November 28 to December 2



Dr. Christian van der Pol
Staff Radiologist
JHCC

van der Pol CB, Salameh JP, Levis B, Chernyak V, Sirlin CB, Bashir MR, McInnes MDF. **Liver Reporting and Data System (LI-RADS) Major Features: Individual Patient Data Meta-analysis of Diagnostic Accuracy Studies for Diagnosis of Hepatocellular Carcinoma.** Oral presentation. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States

Horvat N, Borhani A, Miranda J, Cruite I, Lall S, van der Pol CB, Liu X, McGahan J, Elsayes KM, Fowler K. **Imaging and Radiomics in Hepatocellular Carcinoma (HCC): Current Update and Future Perspectives.** Educational Exhibit. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.

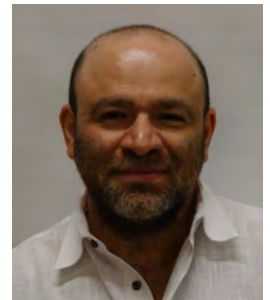
Alaref A, Kisselgoff D, Udare A, Shuster A, Schieda N, Krishna S, van der Pol CB. **Takes One to Know One: Imaging Features of Non-syndromic Bilateral Renal Masses with Pathological Correlation.** Educational Exhibit. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.



Dr. Victoria Tan
Staff Radiologist
SJHH

Tan V, van der Pol CB, Mellnick V, Katz DS, Patlas MN. **Imaging of Colonic Diverticulitis: Multimodality Approach, Controversies and Future Directions.** Educational Exhibit. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.

Islam N, Salameh JP, van der Pol CB, McInnes MDF. **Cochrane 'Living' Systematic Review on Diagnostic Accuracy of Chest Imaging for COVID-19: Version 4.** Poster presentation. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.



Dr. Michael Patlas
Staff Radiologist
HGH

Ranathunga D, Osman H, McInnes MDF, Munir J, van der Pol CB, Islam N, Walsh C. **Natural History of LI-RADS 2 and 3 Observations: A Retrospective Cross-sectional Study.** Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.

Gopee-Ramanan P, Keshavarzi S, Kulkarni S, Au F, Ghai S, Freitas V. **Biopsy-proven Stromal Fibrosis: What is the Appropriated Management?** Scientific Poster. Radiology Society of North America (RSNA) 2021 Annual Meeting. Chicago, IL, United States.



Dr. Prasa Gopee-Ramanan
Associate Staff Radiologist
JHCC



SHOUT OUT and Congratulations! to Dr. Meredith Lynch on being featured in October's HHS Share! Click on the link below if you haven't already seen this! [HHS SHARE Article featuring Dr. Lynch!](#)

October is Breast Cancer Awareness Month



Dr. Meredith Lynch, a Hamilton Health Sciences radiologist, explains why it's important to stay up-to-date with breast cancer screening. "We want people to know that Ontario Breast Screening Program sites are safe to visit." [Read more.](#)



HHS MILESTONES! Cheers to ALL the years!

A BIG congratulations and shout out to our colleagues listed below! They are all celebrating milestones in their careers with Hamilton Health Sciences. Congrats to Luciana Napoleone, Cheryl Leonard, Colleen Hilbert, Karen Margallo and Kelly Toffner on your years of employment and service to our Diagnostic Imaging departments!

35 YEARS

Luciana Napoleone, Ultrasound - General

25 YEARS

Cheryl Leonard, Nuclear Medicine - Juravinski

20 YEARS

Colleen Hilbert, Computed Tomography - Juravinski
Karen Margallo, Diagnostic Imaging/MDU- All Sites

10 YEARS

Kelly Toffner, MRI - General



Arbaaz Patel

3rd year Medical Student

Reversed diastolic flow in a renal transplant due to ureteric obstruction from intraluminal blood clot

Arbaaz Patel BHSc, Alp Sener MD, PhD, Stefanie Y. Lee MD, FRCPC

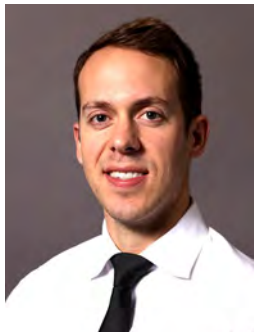
Wiley Online Library, Journal of Clinical Ultrasound/Early View, Case Report

<https://onlinelibrary.wiley.com/doi/10.1002/jcu.23079>

Reliability and Role of Mutation-specific H3F3A (Histone 3-3) G34W Immunohistochemistry to Differentiate Giant Cell Tumor of Bone From its Clinicoradiologic and Histologic Mimics

Pasricha Sunil; Pruthi Manish MS; **Jajodia Ankush**; Kumar Ankur ; Gupta Gurudutt ; Sharma Anila ; Tiwari Akshay ; Rohela Himanshu ; Durga Garima ; Kamboj Meenakshi ; Koyyala Venkata P.B. ; Mehta AnuragDr. Ankush Jajodia
Body/Cross-Sectional Fellow
SJHH/JHCC

Published in Applied Immunohistochemistry & Molecular Morphology: August 04, 2021 - Volume - Issue - doi: 10.1097/PAI.0000000000000964 [Impact factor: 2.0]

https://journals.lww.com/appliedimmunohist/Abstract/9000/Reliability_and_Role_of_Mutation_specific_H3F3A.98519.aspxDr. Christian van der Pol
Staff Radiologist
Juravinski Hospital

Progression Rates of LR-2 and LR-3 Observations on MRI to Higher LI-RADS Categories in Patients at High Risk for Hepatocellular Carcinoma: A Retrospective Study.

Ranathunga D, Osman H, Islam N, McInnes MDF, Munir J, **van der Pol CB**, Elfaal M, Walsh C.

AJR Am J Roentgenol 2021 (in production). doi: 10.2214/AJR.21.26376

<https://www.ajronline.org/doi/suppl/10.2214/AJR.21.26376>

The Global Reading Room: Imaging Detection of Hepatocellular Carcinoma.

Chernyak V, **van der Pol CB**, Vernuccio F, Yoshimitsu K.

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ATTENTION ALL Residents, Fellows, Radiologists

Please REMEMBER to forward in your Recent Publications/Abstracts each month! This is open to ALL residents, fellows and radiologists from:

- ⇒ Hamilton Health Sciences,
- ⇒ St. Joseph's Healthcare Hamilton, and
- ⇒ McMaster University Health Sciences, Department of Radiology

Please reference the “format” for each entry in this section.

Please include your name, title, picture, your publication and the link!



50 years ago, the first CT scan let doctors see inside a living skull – thanks to an eccentric engineer at the Beatles’ record company

“On Oct. 1, 1971, Godfrey Hounsfield’s invention took its first pictures of a human brain, using X-rays and an ingenious algorithm to identify a woman’s tumor from outside of her skull.”

<https://theconversation.com/50-years-ago-the-first-ct-scan-let-doctors-see-inside-a-living-skull-thanks-to-an-eccentric-engineer-at-the-beatles-record-company-149907>

“ROUNDS EVALUATION” QR CODE

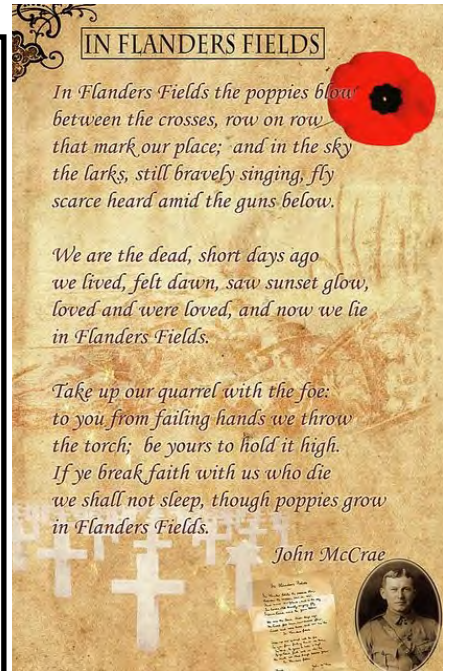
These should be posted in the teaching/rounds room at your site. Residents are familiar with this code. After your Hot Seat or Case Quiz rounds, ask the residents to complete an evaluation. They can scan the posted code on the wall.

Alternatively, you can imbed this QR code in your PowerPoint presentation and ask them to complete. This rounds evaluation has been inexistence for a number of years.



“DAILY FACULTY EVALUATION” QR CODE

This code should be posted by every work station in the department. This is designed to capture the case review sessions with residents and fellows, in other words your everyday teaching when reviewing cases. There is rich teaching happening each day and this is a way to get evaluated and receive feedback. Please ASK the learner to scan the QR code and evaluate your teaching for the day. I recommend requesting at least once per week, and for newer faculty in particular. There is no limit to how often you can trigger an evaluation.



I hope you all had a wonderful Thanksgiving. Please take the time this November 11th to remember those we have lost fighting for our freedom and country.

Thank you to those that continue to submit!

*Lest we Forget
Tori*

**DO YOU HAVE A STORY
IDEA TO SHARE?**

Email: howesv@hpsc.ca

**4 Moments
for Hand
Hygiene**



**RUB
BEFORE
YOU
GLOVE**

1 BEFORE initial patient/patient environment contact



2 BEFORE aseptic procedure



3 AFTER body fluid exposure risk



4 AFTER patient/patient environment contact

