



SPRING 2020

NEWS



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VISION

No preventable infections for Canadians. Ever.

MISSION

We inspire, nurture and advance a culture committed to infection prevention and control.

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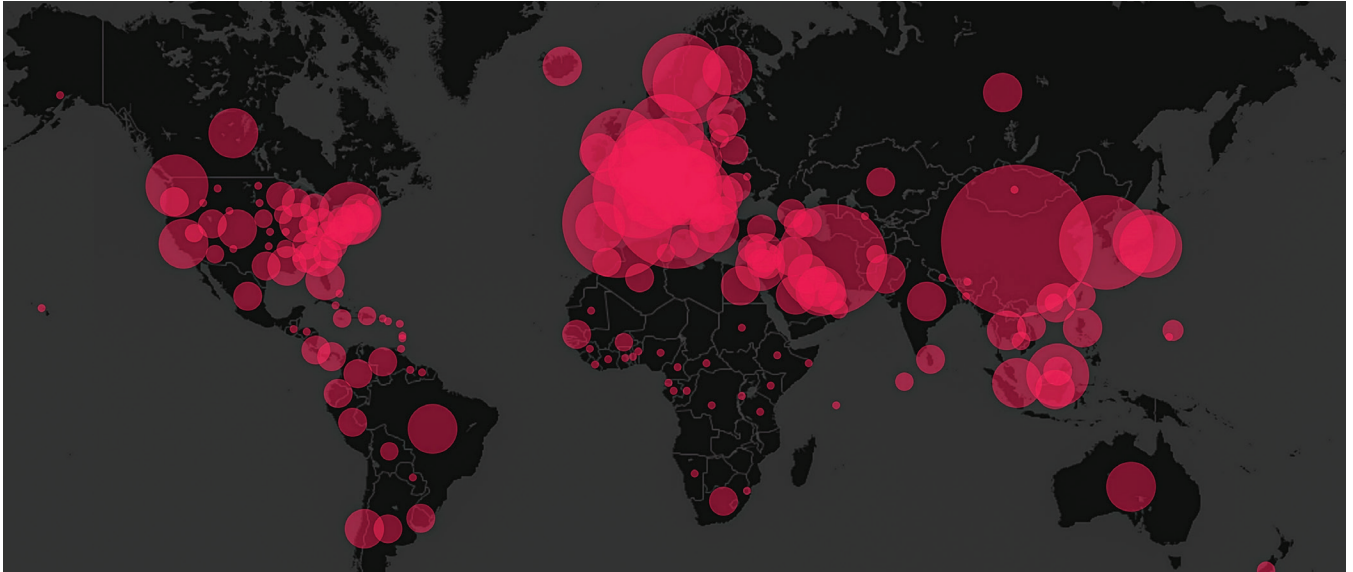
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Barbara Catt, RN, BScN, MEd, CIC

President, IPAC Canada

Time for Reflection



will admit that one of the most difficult tasks for me as your IPAC Canada President is to write this message while we are in the midst of a pandemic.

Pandemic! This is our reality here and now. Here and now Infection Prevention and Control Professionals are essential and necessary in healthcare and industry and asked to be leaders at the table for so many decisions. Decisions such as what isolation precautions are required; what personnel protective equipment is needed to keep staff safe; can we reprocess our N95 respirators; and so on.

Reflecting on the initial early news from December 31, 2019 about a pneumonia-like illness of an unknown cause detected in Wuhan, China, I was thinking a coronavirus much like the 2003 SARS virus. On January 12, China shared the genetic sequence of the novel coronavirus so that countries could prepare and develop specific diagnostic kits. As more cases appeared and transmission was apparent, the World Health Organization (WHO) declared a public health emergency of international concern on January 30, 2020 in order to support countries with weaker health systems. Who knew we would reach 1 million cases globally and counting!

Then I was away in Nairobi, Kenya, working with colleagues, teaching IPAC and ensuring that they too have safe donning and doffing techniques as they were getting prepared for COVID-19. It now seems that Nairobi was ages ago. Fortunately, my colleagues and I were able to make it home safely and luckily, we did not receive notifications from local public health

authorities that our flight was one of many reported to have a person with COVID-19 on board.

What is our new normal? Well, currently, I am one of many who work from home as I know some of you are too. What does this mean? It means longer hours because we are being reactive to the demands of what is needed and/or requested from stakeholders. However, there are many of you who have rolled up your sleeves and are working in the trenches alongside our frontline workers. Keeping up with the science in these times can be a challenge, because you barely have time for a bathroom break, let alone doing your reading. We are in this together, so if you are in need of support:

- connect with colleagues,
- reach out to your local IPAC Chapter
- access IPAC Canada's Coronavirus webpage
- access the Public Health Agency of Canada webpage

I want to commend the response and communication from our national leaders, such as Dr. Theresa Tam, Chief Public Health Officer of Canada and Patty Hajdu the Minister of Health. They (and many others) have shown stellar responses and did not sway from the science of COVID-19.

And finally, great news! Canada's income tax deadlines have been delayed to June 1, 2020.

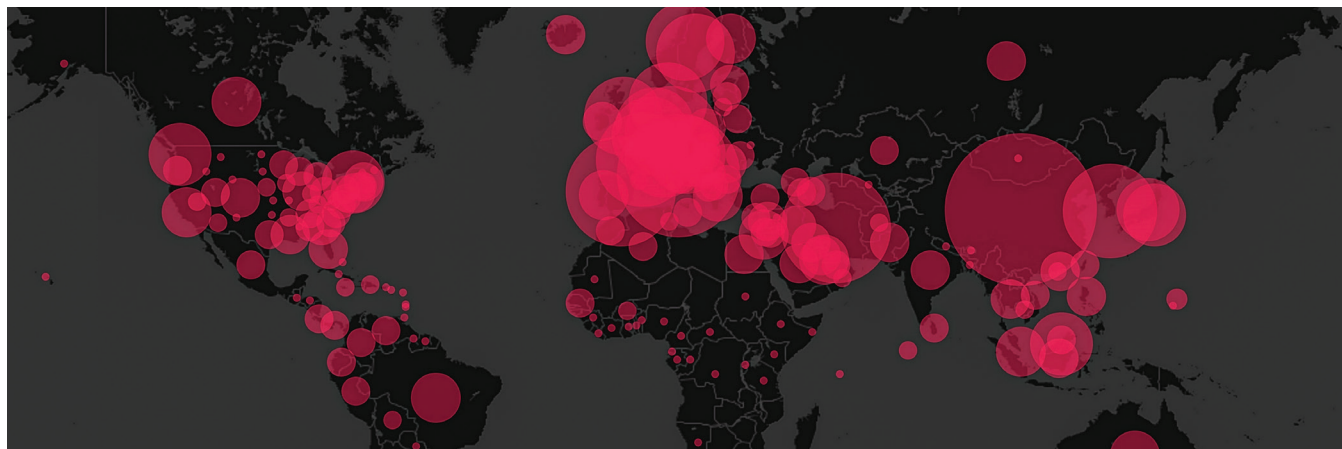
My final words – keep up the great work! We will get through this! And WE will be a stronger as a team – The IPAC Canada Team. 🌸



Barbara Catt, RN, BScN, MEd, CIC

Présidente, PCI Canada

Période de réflexion



Je dois admettre que l'une des tâches les plus difficiles pour moi, en tant que président de PCI Canada, est d'écrire ce message en temps de pandémie.

Une pandémie! Telle est notre réalité actuelle. En ce moment, les spécialistes de la prévention et du contrôle des infections sont essentiels dans le secteur de la santé et en entreprise, et on leur demande de faire preuve de leadership devant toutes les décisions à prendre. Des décisions par rapport aux précautions d'isolement requises, à l'équipement de protection individuel nécessaire pour assurer la sécurité du personnel ou au retraitement des respirateurs N95, par exemple.

Quand je repense aux premières nouvelles du 31 décembre 2019 à propos d'une maladie de type pneumonie de cause inconnue détectée à Wuhan, en Chine, je pensais à un coronavirus semblable au virus du SRAS de 2003. Le 12 janvier, la Chine a fait connaître la séquence génétique du nouveau coronavirus pour permettre aux autres pays de se préparer et d'élaborer des trousse de diagnostic spécifiques. À mesure que de nouveaux cas sont apparus et que la transmission est devenue évidente, l'Organisation mondiale de la santé (OMS) a déclaré une urgence de santé publique de portée internationale le 30 janvier 2020 afin d'aider les pays ayant les systèmes de santé les plus fragiles. Qui aurait cru que nous atteindrions un million de cas dans le monde et que ce nombre continuerait d'augmenter!

Je me suis ensuite rendu à Nairobi, au Kenya, pour travailler avec des collègues, enseigner la prévention et le contrôle des infections et veiller à ce que les Kényans connaissent, eux aussi, des techniques d'enfilage et de retrait sécuritaires en prévision de la pandémie de COVID-19. J'ai maintenant l'impression que j'étais à Nairobi il y a des siècles. Heureusement, mes collègues et moi avons pu rentrer chez

nous en toute sécurité, et nous n'avons pas reçu de message de la Santé publique locale nous informant qu'une personne atteinte de la COVID-19 était à bord de notre avion, comme ce fut le cas de nombreux autres vols.

Quelle est donc notre « nouvelle normalité »? Eh bien, actuellement, je travaille de la maison, comme vous êtes aussi nombreux à le faire. Qu'est-ce que cela implique? Sans doute de longues heures de travail parce que nous réagissons aux multiples demandes concernant les besoins ou les exigences. Vous êtes toutefois nombreux à vous être retroussé les manches pour aller prêter main-forte aux travailleurs de première ligne. Se tenir à jour dans ses recherches et faire ses lectures pendant cette période n'est certainement pas une mince tâche quand on a à peine le temps de s'arrêter pour aller aux toilettes! Mais vous n'êtes pas seuls; si vous avez besoin d'aide :

- appelez des collègues;
- communiquez avec votre section locale de PCI;
- consultez la page web sur le coronavirus de PCI Canada;
- rendez-vous sur la page web de l'Agence de la santé publique du Canada.

Je tiens à féliciter nos dirigeants nationaux, comme la Dre Theresa Tam, administratrice en chef de la santé publique du Canada, et Patty Hajdu, ministre de la Santé, de leurs réponses et de leurs communications. Ces personnes (et bien d'autres) ont donné des réponses exceptionnelles et toujours fondées sur les connaissances scientifiques sur la COVID-19.

Et enfin, une bonne nouvelle : la date limite pour remplir sa déclaration de revenus du Canada a été reportée au 1er juin 2020!

Mes derniers mots : continuez votre excellent travail. Ensemble, nous vaincrons! Et nous serons plus forts en formant équipe : l'équipe de PCI Canada. 🌸



Gerry Hansen, BA

Executive Director, IPAC Canada

And the Beat Goes On

The first thing I want to say is a huge thank you to our members and their colleagues who are our main defence against the ravages of COVID-19 and any other outbreak. We are proud of you, admire you and are in awe of you. Thank you for your service to Canadian healthcare.

During COVID-19, the work of IPAC Canada has continued and increased. During the past month, we have been very busy responding to media requests and answering questions from the public through email and telephone. We have assisted other professional organizations in guideline development and review. We have set up a webpage specific to COVID-19 and edit it daily to ensure it has the latest resources for both healthcare providers and the public. Our media releases around COVID-19 came early and who knew that everything would change so dramatically in March and April. With our Government and Media Relations consultant, Impact Public Affairs, we have prepared initiatives to advocate for increasing the supply chain of PPE and other necessary equipment. We are also communicating with national and provincial ministries to illuminate our previous warnings about the lack of IPAC resources due to financial fallout.

Throughout, we have maintained communication with our members through e-blasts and e-news. We have been able to present webinars of interest, particularly around the Sunnybrook COVID-19 experience, the use of N95s and surgical masks, and reprocessing of medical devices in the dental setting. We are so grateful to our presenters who have

taken time away from their extremely crucial work to provide important education. We hope to continue to produce relevant webinars as presenters are available.

It was with heavy hearts that we cancelled our 2020 National Education Conference to be held in Winnipeg. It would have been no surprise that the conference had to be cancelled, but it was done so with a great deal of trepidation as to the continuation of a prestigious education and networking opportunity, along with the financial implications.

When talking to the venues of the 2020 and future conferences, we were overjoyed to find their full support of our situation. None have charged cancellation or rescheduling fees. Deposits for venues and other aspects of the conference will be moved forward for use on the new dates. We are pleased to announce the new dates for our (former) 2020 and 2021 conferences:

2021 National Education Conference
Winnipeg, Manitoba
May 2-5, 2021

2022 National Education Conference
Toronto, Ontario
April 24-27, 2022

Keep well. Keep safe. 🌸

It is with sadness the 2020 National Education Conference (Winnipeg) has been cancelled.

Many thanks for their support and guidance:

- 2020 Scientific Program Committee, delegates, and presenters.
- Industry partners and sponsors
- RBC Convention Centre and the Delta Marriott Winnipeg
- Canadian Museum of Human Rights and Fort Gibraltar
- Future conference Scientific Program Committees
- Conference services and support organizations
- The Board of Directors of IPAC Canada
- BUKSA Conference Services





Stephen Palmer,

IPAC Canada Public Representative

Small Efforts Can Make an Enormous Difference

There is an old blessing that goes: “May you live in interesting times.”

Without dwelling on the obvious, the last number of weeks have been both a blessing and a significant challenge for all in the IPAC world. The public can now see the importance of the work each of you do and promote on a daily basis. As Public Representative for IPAC Canada, my role is to provide input on various matters, with specific interest in issues that have a public impact. Of utmost concern is the voice of the patients, their families, and those impacted by the challenges IPAC Canada works to address.

When our team went to Ottawa in February for Hill Day, we thought our challenge was a minority government, not the monster that was about to explode across this country. As I speak to people and re-iterate the messaging of our Public Health officials, I continue to remind people of the efforts of those almost-invisible team members that have been working tirelessly sharing the IPAC message through local training and

education, but also by sharing their knowledge and experience across the IPAC Canada network. Each of you contribute to Canada having one of the lowest rates of infection and perhaps more importantly at time of writing this, one of the lowest global mortality rates from COVID-19 related deaths.

Even though, our conference has been postponed, I encourage each member to participate and to fearlessly invite colleagues and team members to join us. To grow the membership of IPAC Canada and to share in the resources and training available at every opportunity. Collectively, small efforts can make an enormous difference. I continue to stand in awe of your commitment, efforts and energy.

It is such an honour to be your Public Representative. Thank you for that privilege.

Stay Strong, Stay Safe and thank you for all you do.

Stephen Palmer,
IPAC Canada Public Representative 🍁





Madeleine Ashcroft, RN, BScN, MHS, CIC

Director, IPAC Canada

Remaining vigilant in a time of uncertainty

“How very little can be done under the spirit of fear.”
- Florence Nightingale

One month ago, I wrote an article for *Hospital News* (April 2020), warning that we must be vigilant to prevent the spread of COVID-19. How things have changed since then! Since late December 2019 when a new coronavirus began spreading rapidly through China, COVID-19 has since spread exponentially to 199 countries around the world with 462,684 confirmed cases and 20,834 deaths (WHO, 27 March, 2020). We now have over 23,000 confirmed cases and over 600 deaths in Canada, with numbers rising daily. What can we do to protect ourselves, our patients, residents, clients, and our families?

COVID-19 is an enveloped virus able to be removed and killed with cleaning and low-level disinfection. It is spread by large droplets deposited on another person's mucous membranes (nose, mouth, and eyes) when the infected person coughs or sneezes in that direction, within 2 metres. Droplets also fall on surfaces and objects, which others may touch, transferring the virus to their own mucous membranes, or to other people or items. The infected individual may cough or sneeze into his/her hands and then touch others' hands or surfaces. Certain medical procedures such as resuscitation may cause droplets to aerosolize, breaking into microdroplets and travelling farther.

Some things have not changed, however. In infection prevention and control (IPAC), we have long-established, evidence-based best practices to deal with any infectious organism. Routine practices are the actions that all healthcare workers (HCWs) should undertake with every patient encounter to assess the risk of contact with body fluids, and to protect ourselves and prevent transmission to others. Hand hygiene is the single most effective way to prevent the spread of infections. Respiratory etiquette (coughing or sneezing into one's sleeve, or covering one's mouth and nose with a tissue which is then discarded and hands cleaned), keeping hands away from one's face, staying home when ill, and being immunized are other key IPAC practices. Social distancing, or staying at least 1 metre away from others and 2 metres away from those with symptoms is always good practice and spatial separation (e.g., a separate room or area for and keeping 2 metres away from someone

with symptoms), and cleaning and disinfection of surfaces and equipment also help to prevent spread. Appropriate personal protective equipment (PPE) such as gloves, gowns, masks, and eye protection, protects HCWs when there is risk of contact with or splashes or sprays of body fluids.

When we know or suspect that someone has a communicable disease, we also use additional precautions, based on the mode of transmission. This includes applying PPE before contact with the affected patient or environment, while remembering that gloves are not a substitute for hand hygiene. For COVID-19, droplet-contact precautions are recommended, with airborne precautions for aerosol-generating medical procedures. In Canada, we learned from the 2003 SARS outbreak, and developed new resources to enhance preparedness for any novel infection, but this new pandemic has exceeded expectations and preparations in many ways.

While the numbers are very concerning, fortunately many infected people appear to have minimal symptoms, but death rates are highest in those over 70, or with other health conditions. Various strategies have been employed to reduce or at least slow the spread or “flatten the curve”. Keeping those most at risk away from others – e.g., elderly persons staying at home and severely limiting visitors to long-term care homes, and emergency measures such as closing non-essential services and mandating everyone to stay home are important strategies. Protecting our healthcare system and workers is critical. Conserving resources like PPE, especially facial protection, so that healthcare workers have what they need is paramount now. Companies and individuals are stepping forward to offer masks, face shields, ABHR, and other materials to support our workers in this challenging battle.

Let's remain vigilant as we move beyond fear, adhere to routine practices, and follow the instructions of our government and public health leaders to protect ourselves and those for whom we care.

Madeleine Ashcroft RN BScN MHS CIC
IPAC Canada Director (Standards & Guidelines) 🌸

2020 Annual General Meeting and Elections

Because of this year's unique COVID-19 situation, 2020 elections will be held online. The results will be announced at the Annual General Meeting (Wednesday, May 6, 2020). The link to elections is <https://ipac-canada.org/2020-online-elections.php>. The deadline date for casting your ballot is Friday, May 1, 2020 (23:59 Eastern).

Only active and honorary members may vote. Students and retired members are non-voting. Students have an (S) after their membership number; retired members have an (R) after their membership number.

For verification purposes, you must provide your name and membership number before casting your ballot. Your identification and IP address will not be kept on file and will only be accessible during the election process by the IPAC Canada Webmaster.

If you are unable to access the online election ballot, or do not wish to vote online, please contact info@ipac-canada.org before Monday, April 27, 2020.

If you have any questions about the AGM or elections, please contact executivedirector@ipac-canada.org.

2020 Election Information and Candidate Biographies

The Nominating Committee of the Board of Directors of IPAC Canada is charged with the responsibility of ensuring continuity by nominating a slate of officers for positions open in 2020 (Policy 12.10). These are nominations only. **Additionally, nominations for any of the available board positions are welcomed from members of IPAC Canada.** Serving on the board of IPAC Canada is an excellent way to participate at the national level. This offers the opportunity to meet a wide range of IPAC Canada members, network with allied professional groups, and work with other motivated and experienced Board members.

Timelines for Election of Officers and Directors:

- December 19, 2019: Announcement of the IPAC Canada Nominating Committee slate of candidates
- February 14, 2020: Deadline for additional nominations from membership
- February 28, 2020: Announcement of slate of candidates for election at Annual General Meeting (AGM)
- **NEW - March 30 - May 1, 2020: Online election ballots (results to be announced at 2020 AGM)**
- **April 23, 2020: Q&A with Candidates (Registration at <https://ipac-canada.org/webinar.php>)**
- May 6, 2020: Results to be announced at AGM

The Nominating Committee of the Board of Directors of Infection Prevention and Control Canada (IPAC Canada) and members of IPAC Canada have put forth the following candidates for positions open as of May 6, 2020.

Secretary/Membership Director (3-year term)

Jennifer Happe BSc MSc
Red Deer, Alberta

Director (Chapters and Interest Groups) (3-year term)

Anne Bialachowski RN BN MS CIC
Hamilton, Ontario - Anne has withdrawn her candidacy.

Stefania Cloutier BES BASc CIPHI(C) CIC
Burlington, Ontario

Director (Education) (3-year term)

Kim Allain BScN RN MHS CIC
Halifax, Nova Scotia

Lola Gushue RN BN CIC
Gander, Newfoundland and Labrador

CANDIDATE PROFILES



Jennifer Happe BSc MSc is a candidate for her second term as IPAC Canada Secretary/Membership Director. Jennifer has worked in infection control for 11 years. After completing a Master's Degree in Microbiology and Infectious Diseases at the University of Calgary, she began her career as a clinical researcher investigating alternative therapies for *Clostridium difficile* infections, including novel antibiotics and fecal microbiota transplants, before transitioning into the role of an Infection Control Professional. Jennifer has a varied portfolio and oversees acute care and mental health units at the Red Deer Hospital and cancer care at the Central Alberta Cancer Center. She also has experience serving long-term care and both small and large healthcare centers. Since 2015 Jennifer has represented IPAC Canada in advocating for an expanded and comprehensive national surveillance system for Canadian acute and long-term care facilities. It has been a privilege for Jennifer to represent IPAC Canada on several Canadian Nosocomial Infection Surveillance Program committees including data quality, case definitions and point prevalence studies. Jennifer has served as Secretary on the IPAC Canada Board since 2017 and as Director of Membership since 2018. When she's not busy working, Jennifer enjoys traveling and volunteering with the RCMP in the Victim Services Unit.

PHILOSOPHY: For the past three years, I have worked diligently to serve the IPAC Canada Board of Directors and our Members as Secretary, and more recently as Director of Membership. I am excited for the opportunity to continue to shape and grow a robust and relevant organization by nurturing Member engagement and fostering Member value. I will liaise between the Board, our Members and the Membership and Membership Core Committees to action the new strategic plan that was informed by our Members. On behalf of our Members, I will continue to help realize IPAC Canada as a leading organization for professional development, networking, practical resources and tools, and advocacy with policy makers and healthcare leaders in the field. Members are this organization's greatest asset and I am inspired by their enthusiasm and commitment to protect the lives and well-being of individuals, families and communities. In turn, I will bring enthusiasm and a commitment to meet the needs that Members have of our organization.



Stefania Cloutier BES BAsc CIPHI(C) CIC holds a bachelor of environmental studies with a minor in biology from the University of Waterloo and a bachelor of applied science in public health & safety from Ryerson University. She is certified in infection control (CIC®), is a certified Public Health Inspector (CIPH(C)), and also holds a certification

in Occupational Health & Safety. Stefania has eight years' experience as an Infection Control Practitioner in the hospital setting and is currently working at Halton Healthcare. Previous to Halton Healthcare, Stefania was an ICP at St. Joseph's Healthcare Centre Toronto and Runnymede Healthcare. Previous to her infection control days, Stefania was a Public Health Inspector for Halton Region Public Health Department. She also served as Professor, Occupational Health and Safety for the Centre for Business at George Brown College.

PHILOSOPHY: Above all my strengths are strong work ethic, relationship building and communication skills. I will ensure effective communication between Interest Groups/Chapters and the Board. I will help to facilitate valuable discussion at annual meetings and support each Chapter/Interest group with strategies and initiatives proposed. My contribution will help to promote strong networks across IPAC Canada with the ultimate goal of strengthening our organization as a whole.



Kim Allain RN BScN MHS CIC has more than 17 years' experience in infection prevention and control. Kim is currently the Quality Improvement and Safety Leader (IPAC) for the Nova Scotia Health Authority. She has also worked as a provincial infection control consultant and infection control practitioner in an acute care setting

previous to her current role. She completed her nursing degree at Dalhousie University School and has a Masters in Health Studies. Kim has been board-certified in IPAC (CIC® designation) since 2005. Kim is an active member of IPAC

Canada. She is a past chapter president and has been a member, co-chair and chair for the 2014, 2016 and 2017 IPAC Canada National Education Conferences. She is currently the Director (Education) on the IPAC Canada Board.

PHILOSOPHY: I have had the privilege of serving as the Director (Education) for over two years. In re-offering for this role, I hope to continue with the momentum in the work I have led and have become involved in. The Education portfolio is exciting, rewarding and full of opportunities. I will continue to be active in the Education committees, ensuring effective communication between the committees and the Board. I will be an advocate for the education strategy for IPAC Canada. I will be prepared, innovative and create in my thinking in how best to serve the membership as Director (Education).



Lola Gushue RN BN CIC is the Regional Infection Prevention and Control Coordinator for Central Health. She has been in that role for seven years, previously in the role of an ICP for six years. She has worked in several settings, including Pediatrics, Nursery, Neonatal Intensive Care, Medical, Endoscopy/Minor Procedures, Pre-Admission

Clinic and Dialysis. Lola graduated from Western Memorial Regional Hospital School of Nursing in 1986 and completed her Degree in Nursing from Memorial University in 2012. Lola has two grown sons who learned a lot about hand hygiene from their mom!

PHILOSOPHY: In 2018, the WHO released a document indicating the eight core components of an IPAC program – two of the top three components were Guidelines and Education – they complement each other. In order for an IPAC program to be successful, meaning the overall goal is to reduce HAI's and promote best practice, education has to be the backbone of our work. As IPAC professionals, we educate every day on various levels. Healthcare workers, physicians, clients/patients and families all benefit from the knowledge we acquire and share. As Director of Education, my goal would be to promote and foster this relationship to achieve the safest care possible! Teamwork!

Gerry Hansen, Executive Director

Email: info@ipac-canada.org

Fax: 1-204-895-9595 🍁

2020 Diversey Scholarship – \$25,000 Total Award

Through the generous support of Diversey, Inc., 6 IPAC Canada members received support to attend the 2020 conference and the opportunity to attend the 2021 annual conference. Additional applications will be accepted for the 2021 conference. Scholarship guidelines and the online application can be found at <https://ipac-canada.org/diverse-scholarship.php>.



The deadline for the 2021 scholarship application is **January 31, 2021**.

2020 Scholarship was received by:

Wendy Benn-Abrams RN BScN
Genevieve Campbell MSc ICS-PCI
Evelyn Nicol RN BSN CIC

Erica Susky MSc CIC
Corina Tinnant BN RN
Karen Valentine RN BScN CIC *

2021 International Attendee Scholarship – in collaboration with Stryker - \$5,000 Total Award

In collaboration with Stryker, IPAC Canada is able to offer a scholarship(s) for a candidate(s) from an under-resourced country to attend the 2020 National Conference. We hope they will be able to attend the 2021 conference. The criteria for selection and application form are available on the IPAC Canada website at <https://ipac-canada.org/sage-international-attendee-scholarship-2.php>.



Completed applications and accompanying documents must be received no later than **October 1, 2020**.

See the biographies of the 2020 International Attendee Award winners on Page 13. *

2021 Prescient^x Scholarship – \$5,000 Total Award

In collaboration with Prescient^x, Inc., IPAC Canada is able to provide a patient, a patient family representative, or a patient caregiver associated with a provincial or national Patients for Patient Safety organization the opportunity to attend the IPAC Canada National Education Conference. The winner of the 2020 Prescient^x Scholarship is Katharina Kovacs Burns of Edmonton, Alberta. See Katharina's bio on Page 14. *



2021 GOJO Scholarship - \$6,000 Total Award

IPAC Canada and GOJO have partnered to provide a \$6,000 scholarship (maximum \$1,500 per successful applicant) to eligible IPAC Canada members for the purpose of attending the National Education Conference. Scholarship criteria focus on members who have demonstrated their leadership in hand hygiene and infection prevention and control education. The 2020 scholarship will be supported for attendance at the 2021 conference. The criteria and online application can be found on the IPAC Canada website at <https://ipac-canada.org/gojo-scholarship.php>. *



Deadline for applications is **February 17, 2021**.

2020 Scholarship was received by:

- Asma Ahmad RN
- Amrita Dhaliwal BA (Health Sciences)
- Dechen Chhakpa BScN RPN CIC
- Rhianna Matschle-Neufeld RN BSN MSN CPN CIC *

2021 Clorox Scholarship – \$6,000 Total Award

In 2019, IPAC Canada and the Clorox Company announced a new scholarship to assist members to attend the 2020 National Conference (maximum \$1,500 per successful candidate). The scholarship is for members who have shown leadership in environmental hygiene education. The application and criteria can be found on the IPAC Canada website Conferences/Education/Scholarships).



The deadline for applications is **February 17, 2021**.

2020 Scholarship was received by:

- Trish Beckett RN CIC
- Mary McNaughton RN BSN MSA CIC
- Kelly Smith BSc BN CIC
- Krista Walsh RN BN *

Sani Marc Environmental Research and Innovation Stewardship Scholarship - \$10,000 Project Funding plus attendance at 2020 and 2021 IPAC Canada conferences

IPAC Canada and Sani Marc have finalized collaboration on a new scholarship which will focus on members who have demonstrated leadership, creativity and sustainability in leading a research or stewardship project. Guidelines and application information are available at <https://ipac-canada.org/sani-marc-scholarship.php>.

The deadline date for applications is **February 20, 2021**. *



2020 International Attendee Scholarship

(In collaboration with Stryker)

The 2020 International Attendee Scholarship was awarded to two candidates. The scholarship is intended to bring delegates from under-resourced countries to the IPAC Canada National Education Conference. Because of cancellation of the 2020 conference, our sponsor, Stryker, has agreed to honour the awards at the 2021 conference.

Every year, we evaluate dozens of worthy candidates and this year was no exception. The judging panel has noted an improvement in the quality of applications. Based on this, there were a large number of candidates with scores in the top-range.

In the final process, the two candidates selected had the highest scores from our judging panel. Both of the candidates are from Nigeria and are well deserving of this scholarship.

1. Dr. Okokon Ita, MBBCh, FMCPATH
2. Paulyn Owu-Registered nurse, registered midwife



Dr. Okokon Ita is a Medical Microbiologist/IPAC Committee Chair for the University of Calabar, Nigeria. He is a member of ICAN and the Nigerian Society for Infection Control (NSIC). At a national level, he was appointed to two projects as National Trainer in the Capacity Development Project on Preparedness and Response for Infectious Diseases (IPAC focus) with the Nigerian Centre for Disease Control (NCDC). The focus of this work was on the education of IPAC practices, development of training tools and quality improvement methods to monitor compliance with IPAC protocols. To prepare him for this IPAC role with NCDC, he took the basic and advanced IPAC courses in Nigeria through ICAN in 2019. However, his educational opportunities have been

limited with little to no funding. He attended the 2019 NSIC conference, but has had no education or conference attendance outside of Nigeria. As the IPAC Committee Chair, his current project is to coordinate the development of IPAC policies, which do not exist in his facility in Calabar.



Mrs. Paulyn Owu is the Principal Nursing Officer for the IPAC Unit at Lagos State University Teaching Hospital. She is a member of Nigerian Society for Infection Control. She has been working in the IPAC program in her facility since 2009 and her responsibilities within the IPAC program were well defined in her application. She

noted her involvement in surveillance (data collection, analysis and reports), waste management, management of IV lines/sites, environmental management, hand hygiene and educational activities. Mrs. Owu has never attended an IPAC conference and has only noted attendance at local education activities and training. She notes that there are no funding opportunities/scholarships available.

Both of the candidates expressed how important it was to build capacity in their local/national settings. They indicated a commitment to take what they learned at the conference, to share with their teams/colleagues to improve IPAC practices.

We are looking forward to meeting these two candidates at the 2021 IPAC Canada National Education Conference. ✨

The sponsors of 2020 scholarships have been generous in providing the opportunity for our 2020 scholarship winners to participate in the 2021 National Education Conference. We thank them for their support.

2020 Prescient^x Scholarship

Katharina Kovacs Burns is a current and active member of Patients for Patient Safety Canada, but has also been in patient safety with the WHO Patient Safety Alliance through the International Alliance of Patient Organizations since 2005. Katharina was one of ten individuals in Canada who helped to establish a Canadian patient safety group and co-founded PFPSC in 2007. Her interests in patient safety include the prevention and control of infections not only with patients in acute care settings but also with clients in community settings and the general public as part of Public Health and health promotion. Katharina's experiences with infection education and prevention cross several boundaries that includes a personal, professional and academic interest.



Katharina has had experiences as a caregiver with various infections that have plagued her elderly parents in Continuing Care and acute care facilities, all of which could have been prevented. Most of these episodes could have been prevented by healthcare providers taking prevention precautions including washing their hands or gloving up prior to following through with various procedures, particularly with her father who had pressure ulcers requiring daily cleaning and bandage changes. He acquired an infection that inflamed his pressure ulcer to a point where he required hospitalization and surgery, as well as infection control procedures. Both parents have acquired lung infections from staff who were ill and at work. She has seen healthcare providers coming to work or visitors coming into long-term care facilities when they were ill with colds or flu. Katharina has made it a point to talk with residents and the care providers in her parents' facility about prevention related to spreading infections as well as general patient safety in their daily practices with the facility residents.

In addition to personal family/caregiver concerns and roles in infection prevention, Katharina is also an academic in Public Health. As part of her academic role, she teaches multidisciplinary public health courses during which she relates her personal and family experiences and stories about public health issues, infection and other safety areas of concern and prevention strategies. She also brings in experts to talk with students about infections, prevention and safety. And as a professional working in a large healthcare system in Alberta, Katharina is conscientious about the practices of healthcare providers at all levels and areas of care from acute to community settings. Reinforcing hand hygiene and other basic prevention practices are part of the continuous quality improvement strategies she discusses with all staff and help them measure and co-design quality improvement strategies to improve their performance at the clinical care level. Katharina works in Clinical Quality Metrics and works with all staff at unit, site and program levels to engage them in prevention measures and improvement strategies. Personal stories including her own help to emphasize the need for double checking approaches to infection prevention along with safety/prevention checklists and other decision aides which help reinforce good practices.

Experiences and expertise through personal, academic and work are things she brings as a member of PFPSC in her capacity and capability to discuss and inform, educate, and promote infection awareness/understanding and prevention practices for patients/clients and families and the public.

IPAC Canada and Prescient^x look forward to the opportunity to finally meet Katharina at the 2021 National Education Conference. *



Overview: Reprocessing of Critical Foot Care Devices Guidance



Clare Barry, BN, MSc, CIC® and Merlee Steele Rodway R.N.

Reprinted with permission of Foot Canada Training (Clinical Corner, Spring 2020):
<https://footcanada.ca/news-archives-s18.php?ID=53&command=viewArticle¤tFeed=1>

The Infection Prevention and Control Canada (IPAC Canada) Position statement on “**Reprocessing of Critical Foot Care Devices**” and the “**Practice Recommendations for IPAC Related to Foot Care in Healthcare Settings**” is written for healthcare providers who perform foot care or reprocess critical foot care devices and as a resource for IPAC Professionals. (Note: It is not intended for addressing foot care practices performed by the client or the clients’ family.)

Foot care equipment/devices have been linked with healthcare associated infections (HAI) and outbreaks across the healthcare continuum therefore IPAC members requested guidance on infection prevention and control recommendations for foot care.

The process to develop the recommendations included:

- Ten IPAC members including foot care nurses from across Canada volunteered for the working group. There was an extensive review of the existing national and global practices; a review of outbreaks associated with foot care and the current evidence based recommendations.
- Drafts were circulated to experts and stakeholders, including Canadian Foot Care Association (CAFCN), Canadian Association of Medical Device Reprocessing (CAMDR), and the IPAC Canada Interest Groups

- Following these reviews, IPAC Canada Standards and Guidelines reviewed the statements before submission to the Board of Directors for review and approval.

The goal of the Position statement is to develop a user-friendly document with clear direction for safe reprocessing of critical devices used for foot care. It includes cleaning, disinfection, sterilization, and storage. A reference list of guidelines and resources is also provided.

Clients expect and require safe care regardless of where the procedure is performed. Clients and providers can be put at risk of acquiring infections including viral blood borne pathogens such as Hepatitis B & C, Human Immunodeficiency Virus (HIV), and various bacterial and fungal infections. These infections can occur through penetrating skin accidentally, sharp instrumentation contaminated with blood/body fluids during care and used on clients without following sterilization protocols, organisms transferred from client to client through contaminated devices, and/or the weeping areas or non-intact skin; e.g. hands of provider.

Each client interaction requires a sterile set of foot care equipment/devices. In the delivery of foot-care services, equipment/devices may intentionally or unintentionally come into contact with blood, body fluids, or non-intact skin,

The Infection Prevention and Control Canada (IPAC Canada) Position statement on “Reprocessing of Critical Foot Care Devices” and the “Practice Recommendations for IPAC Related to Foot Care in Healthcare Settings” is written for healthcare providers who perform foot care or reprocess critical foot care devices and as a resource for IPAC Professionals. (Note: It is not intended for addressing foot care practices performed by the client or the clients’ family.)

Foot care equipment/devices have been linked with healthcare associated infections (HAI) and outbreaks across the healthcare continuum therefore IPAC members requested guidance on infection prevention and control recommendations for foot care.

The process to develop the recommendations started in September 2016 and included:

- Ten IPAC members including foot care nurses from across Canada volunteered for the working group. There was an extensive review of the existing national and global

practices; a review of outbreaks associated with foot care and the current evidence based recommendations.

- The Position statement was done first; followed by the Practice document which builds on the Position statement and finally the IPAC Canada Audit Toolkit for the IPAC Canada members to refer to was revised to reflect the two previous statements.
- Drafts were circulated to experts and stakeholders, including Canadian Foot Care Association (CAFCN), Canadian Association of Medical Device Reprocessing (CAMDR), and the IPAC Canada Interest Groups
- Following these reviews, IPAC Canada Standards and Guidelines reviewed the statements before submission to the Board of Directors for review and approval.
- We then developed an extensive list to send the first two documents to. Education sessions have been provided by webinar and at the National IPAC Canada Conference. Education is still ongoing.

therefore requiring sterilization. It is imperative to manage all equipment as if it has been contaminated. Soil is not always visible. Infection prevention and control best practices indicate there should be one reprocessing system for all equipment from any client.

Reusable foot care equipment/devices are considered critical devices. Critical medical equipment presents a high risk of infection if the equipment is contaminated with any organism.

Reprocessing critical equipment involves meticulous cleaning followed by sterilization.

The Position statement states there are three options for reprocessing critical foot care devices.

Option 1:

- Use single-use sterile disposable equipment/devices and discard appropriately after use.

Option 2:

- Multi-client reusable foot care equipment/devices reprocessed using the contracted services of a centralized Medical Device Reprocessing Department (MDRD). The contracted MDRD

meets the CSA standards and has qualified technicians to perform the reprocessing (cleaning and steam sterilization).

Option 3:

- The healthcare provider chooses to reprocess reusable equipment/devices themselves, with the following considerations incorporated into practice:
 - Purchase current pertinent CSA standards documents for reprocessing practices and follow these along with provincial reprocessing guidelines.
 - Healthcare provider shall have written procedures based on current standards.

NB> There is an extensive list of what must be implemented if the healthcare provider chooses Option 3.

These documents have been circulated broadly to educational institutions and professional associations involved in foot care throughout Canada. IPAC Canada has provided webinars on these statements.

Submitted by Clare Barry, BN, MSc, CIC® and Merlee Steele Rodway R.N. on behalf of IPAC Canada 🌸



New and certified CICs® from a variety of healthcare settings have spent hours studying, digesting facts, and reading current literature. This information and life experience, along with a successful completion of the CIC® examination, ensure infection prevention and control professionals deserve to place a CIC® after their names. Congratulations to the following IPAC Canada October 2019 to March 2020 graduates.

October – December 2019

New Certificants

Deborah O. Bolaji, B.Sc., MPH, CIC
Shelli D. Fielding Levac, RN, CIC
Caroline M. Ivorra, RN, CIC
Kavitha Ramaraj, CIC
Lisa B. Snodgrass, BN, RN, CIC

Renewed Certificants

Clare Barry, RN, BN, MS, CIC
Noel Belcourt, CIC
Elizabeth A. Bialachowski, RN, BN, MS, CIC
Seema Boodoosingh, MHA, BSc., MLT, CIC
Violet Rose Burton, CIC
Krista L. Cardamone, RN, MN, CIC
Jennifer M. Chadney, RN, BScN, CIC
Claudia A. Crusell-Balogh, CIC
Rita J. Dekleer, CIC
Christine M. Drummond, MN, RN, CIC
Tamara R. Duncombe, CIC
Bronwen Leigh Edgar, CIC
Melanee Eng-Chong, CIC
Erhuvwu J. Eruvwetaghware, MPH, CIC
Laura E. Farrell, BSc, BEd, CPHI(C), CIC
Lola C. Gushue, BN, RN, CIC
Tricia LA Hutton, RN, CIC
Suzanne L. Hyderman, BScN, CIC
Brenda L. Jenkins, BSN, RN, CIC
Masoud Khoddami, MD, MPH, CIC
Mary Ellen C. Konrad, MLT, CIC
Lisa Kroesbergen, RN, CIC
Terry J. Lauriks, BSc, CPHI, CIC
Rhodora B. Laylo, CIC
Sam P. MacFarlane, RN, CIC
Abdubois Marufov, CIC
Teri A. Murduff, CIC
Vydia G. Nankoosingh, MLT, CIC

Dawna L. O'Toole, B.ScN, RN, CIC
Colleen Ouwendyk, RN, CIC
Sharon V. Pelletier, CIC, RN
Donna Penney, RN, BSN, CIC
Donna Perron, BScN, RN, CIC
Kimberly Presta, RN BN ENC CIC
Laurie E. Rodnick, RN, CIC
Esther P. Rupnarain, RN, BA, CIC
Baljinder Sidhu, RN, BScN, MPH, CIC
Kelly A B Smith, BSc, RN, BN, CIC
Natalie D. Smith, RNB, CIC
Cara M. Sudoma, RN, BScN, CIC
Ann M. Sutcliffe, RN, CIC
Jean Terhaar, RN, CIC
Monali Varia, CIC
Angela Wigmore, MLT, CIC

January – March 2020

New Certificants

Linda J. Elliott, RN, BScN, CIC
Shelley I. Hudson, RN, CIC
Jeffrey Lee, RN, MN, CNOR, CIC, TCRN
Erika Jose E. Oliveros, BSN, RN, CIC
Sandra F. Petersen, RN BScN CIC
Keinza O. Piper, CIC
Sandra M. Vesco, RN, CIC
Kuldeep K. Viridi, MLT, CIC
Olla Wasfi, CIC

Renewed Certificants

Arpita Bhattacharya, BSc, RRT, CIC
Sandra A. Dunford, RN, BScN, CIC
Elizabeth M. Gulyas, RN, MSN, BAS, CIC
Tricia G. Herridge, CIC
Mamta Mehta, BSc Hon., CIC ✨

Hill Day 2020



Dining together in preparation for Hill Day 2020.



Front: Jennifer Happe, Kim Allain, Margaret Cameron, Karrie Yausie. Back: Madeleine Ashcroft, Natalie Bruce, Joseph Kim, Molly Blake, Stephen Palmer.



Jennifer Happe and Kim Allain stand outside the Public Health Agency of Canada.

Before knowing we would be facing the historic devastation of COVID-19 in the spring of 2020, the Board of Directors focused on two issues that threaten Canada's public health. These issues are ongoing.

On February 25, 2020, representatives of IPAC Canada, including members of the Board of Directors and representatives of two chapters, SASKPIC and Central East Ontario, spent a day on The Hill in Ottawa meeting with ministers and staff to discuss the problem and resolution to these pressing issues.

Canada has a strong public health system in place to ensure the health of our population. The institutions, professionals and processes that facilitate public health work collaboratively to ensure preventive measures are emphasized and coordinated responses are made when there is an emergency. In crisis scenarios, the people and practices associated with prevention are celebrated, but the efforts made day in and day out by healthcare professionals are often taken for granted.

Indifference and misinformation are growing threats to Canada's public health advantage. These concerns are difficult to quantify, but they also play a role in exacerbating challenges that Canadians and health professionals grapple with on a daily basis.

For Infection Control Professionals, one of the most pressing of these challenges are Antimicrobial Resistance and Vaccine Hesitancy.

Vaccines and antimicrobials are vital to effective public health and healthcare in Canada. Their success has been profound, but their effectiveness is being limited, which is cause for great concern among infection control professionals (ICPs). ICPs come from many different backgrounds within the healthcare field. These include disciplines such as nursing, medicine, microbiology, medical technology and epidemiology. All are committed to the fight against AMR and vaccine hesitancy.

Antimicrobial Resistance

Antibiotic resistance causes people to be sick for longer and increases the risk of death.

- World Health Organization.

The World Health Organization has recently declared AMR to be one of the greatest threats to global health in this decade. The Council of Canadian Academies has recently measured the economic and social impacts of AMR and found that the



Joseph Kim, left, with Karrie Yausie, Molly Blake and Tony Van Bynen MP.



Tim Louis, MP, centre, is photographed with Margaret Cameron, left, and Jennifer Happe.



Margaret Cameron pictured with Randall Garrison MP.



Madeleine Ashcroft, left, Margaret Cameron, right, with Carol Hughes MP.

impact is profound and expected to grow tremendously over the next three decades if urgent action is not taken. AMR costs Canada's healthcare system \$1.8 billion per year.¹ This cost is the reality when 26% of infections are resistant to the drugs that are commonly used to treat them. That rate is expected to grow to 40% of infections by 2050. The cost of AMR to the healthcare system will be approximately \$7.6 billion if that threshold is reached.² Each year, 5,400 Canadians die as a result of AMR, and that number could grow to 13,700 if the 40% threshold is reached.³ The current rate of deaths directly attributable to AMR is comparable to Alzheimer's disease, which has been addressed by the federal government with a national strategy and \$50 million in new funding. Despite its wealth, Canada continues to have gaps in its ability to understand national trends in antimicrobial resistance. The lack of a national, accessible database with up-to-date information on microorganisms, which have become resistant to certain drugs, the factors that led to resistance, and how to best combat them is leaving our healthcare professionals at a disadvantage to help Canadian patients.

The problem of AMR must be solved proactively. The development of antimicrobial agents is not keeping pace with the spread of AMR and we may not be able to mobilize a sufficient response in an emergency situation. The Public Health Agency of Canada (PHAC) is working to address the

Most isolates of carbapenemase-producing Enterobacteriaceae (CPE) are resistant to all commonly used orally available antimicrobial drugs.

- Centers for Disease Control and Prevention.

issue of antimicrobial resistance in Canada. PHAC has noted, "Ongoing surveillance gaps present a challenge to developing a comprehensive picture in both the community and hospital settings."⁴ These gaps need to be closed.

Since the United States created the National Healthcare Safety Network, which provides over 17,000 healthcare facilities with the data needed to treat and prevent healthcare-associated infections, there has been a drastic decrease in the number of infections. This decrease can best be identified in the 50% decrease in central line-associated bloodstream infections between 2008 and 2014.



Madeleine Ashcroft with Quinn Ferris.



Madeleine Ashcroft with Kirsty Duncan MP.



Natalie Bruce with Quinn Ferris.

It is imperative that the federal government play a role in Canada-wide surveillance to ensure that all Canadians, regardless of jurisdiction, are protected against the spread of infectious diseases. We need a national solution.

We recommend that Health Canada collaborate with provincial health ministries to develop a National Surveillance System for Antibiotic Resistant Organisms, with consistent case definitions across the country. Canada can't afford to leave health care workers, their patients, and the public at a disadvantage in the fight against antimicrobial resistance.

Vaccine Hesitancy

Vaccines are most effective when nearly everyone is vaccinated. Compared with pre-vaccination rates from 1954, Measles, Mumps and Rubella cases have decreased by 99%.⁵ Without a high rate of immunity, many Canadians are left vulnerable to preventable infectious diseases. The national average vaccination rates for MMR remain below⁶ the 2025 Federal Vaccination Coverage goal of 95%.⁷

In recent years, a troubling trend of vaccine hesitancy has been on the rise. No credible, science-based evidence exists to demonstrate that vaccines pose any danger to children or adults, yet misinformation is rampant and online communities continue to perpetuate falsehoods. The World Health Organization notes that “given the potential for hesitancy to rapidly undermine vaccination coverage in specific settings, it is important that all countries take steps to understand both the extent and nature of hesitancy at a local level.”⁸

In response, some provincial governments have begun requiring school-aged children to produce vaccination reports upon enrolment each year. While conscience and choice are important, it is also important for governments to actively promote one of the most successful public health measures in human history.

IPAC Canada supports the WHO recommendation that countries “should develop a strategy to increase acceptance and demand for vaccination, which should include ongoing community engagement and trust-building, active hesitancy prevention, regular national assessments of concerns, and crisis response planning.”

In 2018 there were 980,000 bacterial infections in Canada. Of these, 250,000 were resistant.
- Council of Canadian Academies.

We look forward to working with health sector partners, Health Canada and the Provincial and Territorial Health Ministers to reach the 2025 Federal Vaccination Coverage goal of 95%. The federal government should implement a national promotion campaign that goes beyond posting factual information and actively promotes the benefits of vaccines and evidence of their safety to all Canadians.

- ¹ Council of Canadian Academies. *When Antibiotics Fail: The Expert Panel on the Potential Socio-Economic Impacts of Antimicrobial Resistance in Canada*. 2019. <https://cca-reports.ca/wp-content/uploads/2018/10/When-Antibiotics-Fail-1.pdf>
- ² Ibid.
- ³ Ibid.
- ⁴ Public Health Agency of Canada. *Canadian Antimicrobial Resistance Surveillance System Report 2016*. September 12, 2016. <https://www.canada.ca/en/public-health/services/publications/drugs-health-products/canadian-antimicrobial-resistance-surveillance-system-report-2016.html>.
- ⁵ <https://www.canada.ca/en/public-health/services/publications/healthy-living/vaccines-work-infographic.html>
- ⁶ http://publications.gc.ca/collections/collection_2018/aspc-phac/HP40-156-2018-eng.pdf
- ⁷ <https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html#1.1>
- ⁸ https://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en/

IPAC Canada is the first professional association to partner with the BIOMEDICAL INNOVATION AMR WORKING GROUP. This is an external consultative body comprised of members from Canada's biomedical innovation sector to work jointly and openly with federal and provincial

government representatives and identify opportunities to accelerate the development, commercialization and health care system adoption of biomedical innovation for AMR in Canada.

For more information, [click here](#). 🍁

IPAC Canada Coronavirus Webpage

To see new and updated information from verifiable sources, refer to the [IPAC Canada webpage](#) regularly.

Some of the materials that can be found via the webpage include:

- National and International Guidance Documents
- Provincial Guidance Documents
- Conservation and Decontamination of N95 Facemasks and PPE
- Posters, Graphics and Videos
- Education and Training
- Additional Reading

IPAC CANADA THANKS ITS MEMBERS AND COLLEAGUES.

See IPAC Canada's tribute to ICPs and other healthcare providers by [clicking here](#)



The video player displays a thank you message from IPAC Canada. At the top, the logos for ipac (Infection Prevention and Control Canada) and pci (Prévention et contrôle des infections Canada) are shown. The main text reads "Thank you from IPAC Canada". Below this, four individuals are shown in separate frames, each holding a sign that expresses gratitude to healthcare workers. The signs include messages like "THANK YOU FOR YOUR AWESOME DEDICATION!", "To all the dedicated Health Care Heroes, THANK YOU!!!", "Thank you for your great work and dedication!", and "Thank you to our awesome healthcare workers including: •ICU •Environmental Services •Lab/Inch". The video player interface shows 399 views, a date of Apr 14, 2020, and a subscribe button for the channel "IPAC Canada Videos" which has 133 subscribers.

Strategic Plan 2019-2021



Visual of IPAC Canada Strategic Plan 2019-2021. Depicts how communication and fiscal responsibility are embedded into our three strategic directions (Brand Awareness, Member Value/Engagement, and Advocacy and Partnership).

2019-2021 STRATEGIC PLAN - REVIEW OF SUCCESS, GAPS AND CHALLENGES

	TIMELINES	RESPONSIBILITY	COMMENTS
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The IPAC Canada Board of Directors has integrated action plans from the 2019-2021 Strategic Plan as part of its ongoing mandate to promote the association and its members, and to provide current best practice resources to its members.

The following is a review of the 2019-2021 Strategic Plan noting action items and the status to date.

INSPIRE BRAND AWARENESS			
Increase the awareness of IPAC Canada's brand, value and benefits internally and externally for clarity and impact.			
1. Comprehensive communication strategy to raise brand awareness.			
Develop a comprehensive Communications Plan	November-December 2019	Social Media Manager, Executive Director, Impact Public Affairs	A formal communication plan is under development. Current strategies include increasing the social media profile, increasing media relations, and building on current communications with members.
Prepare CJIC for PubMed indexing	01-Mar-21	Editor, Editorial Board, Publisher	Efforts are ongoing to make CJIC PubMed ready. CJIC has been indexed by CrossRef and is pursuing indexing by SCOPUS.
2. Increase awareness of the value of IPAC Canada membership			
Gather information on members' needs and preferences to inform communications strategy and planning	Quarterly short surveys 2019-2021	Membership Director, Education Director, Membership Core Committee, Executive Director, Webmaster	The committee has decided on quarterly short surveys to increase survey responses on various topics. Standing committees identified for 2020 surveys have been contacted to determine survey questions. The first short survey is anticipated for March 2020 (postponed because of COVID-19).
NURTURE MEMBER VALUE AND ENGAGEMENT			
Clarify value of IPAC Canada membership and increase engagement for growth and sustainability			
1. The core value proposition for IPAC Canada for members and stakeholders	COMPLETED	Membership Core Committee, Membership Director, Board, Executive Director	IPAC Canada - the smart way to advance infection prevention and control best practice every day.
Short surveys to determine improvement in addressing member needs	Annually	Membership Director, Board, Executive Director.	See above.
Survey on member satisfaction	Annually	Membership Core Committee, Membership Director, Board, Executive Director, Webmaster	To be prepared for distribution in fall 2020
2. Provide current, timely and relevant knowledge that is accessible to members.			
Promote Mentorship Program	All mentees matched with mentors - 2021	Mentorship Program Committee	Assignment for Mentorship Committee to approach members who have identified specific expertise and ask them to be mentors.

	TIMELINES	RESPONSIBILITY	COMMENTS
Mentorship Program information as an infographic with links to more information and documents	COMPLETED	Membership Director, Webmaster, Mentorship Program Committee	The infographic is available at https://ipac-canada.org/photos/custom/Members/pdf/Mentorship_Program_OnePageFlyer.pdf .
Encourage chapters to promote mentorship program	Ongoing	Mentorship Program Committee; Mentor Program Chair	Chapters have been encouraged to promote the program at each of their meetings.
3. Improve and facilitate communication			
Utilize Communication Plan to address concerns re delivery of information	2019-2020	Social Media Manager, Executive Director, impact Public Affairs	Communication visual style under review.
4. Increase Member Engagement			
Encourage succession planning at chapter level	2019-2020	Board, Director (Chapters and Interest Groups), Executive Director.	Board and Executive Director to be more visible at Chapter meetings (in-person, webinars, teleconferences); Ongoing communication with chapters experiencing member engagement and succession problems.
5. Generate unique knowledge-based tools			
Create critical appraisal statements without duplicating other initiatives	Ongoing	Standards & Guidelines	Committee charged with determining necessity of developing IPAC Canada position statements and practice recommendations or to ensure distribution of documents from other sources.
Position statements to be on unique topics, not duplicating other initiatives	Ongoing	Standards & Guidelines	Committee to create new and necessary guidance documents; to revise current documents; to determine if a guidance document should be retained or archived.
Launch Audit Tool App	COMPLETED, and ongoing	Audit Tool Committee, Executive Director	The Audit Tool Committee ensures that the app contains current audit tools. The Executive Director works with HandyMetrics to engage member pick up of the app.
Based on mega survey, develop new and unique audit tools	Ongoing	Programs and Projects	Programs & Projects has recently completed a new Self-Appraisal Audit Tool. The tool will be posted after formatting by the Secretary of the Audit Tool Committee.
Review website for immediate and long term revisions	2019	Web Communications Manager, Webmaster	Several edits made to the website in response to the 2018 mega survey. A major review of the website is due in 2021.
Continue to schedule practice-based webinars	Ongoing	Education Core Committee, Director (Education)	The Education Core Committee is mandated to provide at least 10 practice-based webinars. In 2019, 10 webinars were developed by the ECC with an additional 10 sponsored by industry, and over 70 chapter, interest group and administration webinars. The same is anticipated for 2020.

	TIMELINES	RESPONSIBILITY	COMMENTS
ADVANCE ADVOCACY AND PARTNERSHIP			
Strengthen advocacy and partnerships for increased influence and impact.			
1. Identify and build new partnerships and strengthen existing partnership based on IPAC Canada values and strategic priorities			
Identify new network champions and partners to advance the work of IPAC Canada	Ongoing	Board, Executive Director	Ongoing communication with like minded organizations (gov't & not-for-profit). Recent collaboration has occurred with the Canadian Association of Foot Care Nurses and the Nurses Specializing in Wound Care, Ostomy and Continence Canada. IPAC Canada has responded to requests for information from practitioners in dental settings with a resulting increase in the number of dental setting members. Industry partners continue to be a valuable source of education and support at the chapter level and the national level. Relationship building with all partners is integral to the growth of our profile and capacity.
2. Advocate for a National Surveillance System			
Collaborate with key partners and organizations to advocate for FPT adoption of standardized case definitions	2019-2021	With partners (AMMI, CPSI, PHAC)	Provincial and Federal unwillingness to accept Pan-Canadian case definitions and Federal unwillingness to commit funding of an enhanced surveillance platform. Talk ongoing between CNISP and CIHI re collection, analysis and distribution of infection control data.
Lobby provincial and federal politicians to support a national surveillance system	2019-2021	With partners (AMMI, CPSI, PHAC)	The annual Hill Day provides an opportunity for our Board and other IPAC Canada representatives to meet with ministers and staff to promote both the case definitions and a surveillance system.
Identify networks, champions and partners to endorse the national surveillance system at all government levels.	Ongoing	CPSI and IPAC Canada Representatives	A PanCanadian Surveillance Advisory was developed in collaboration with CPSI. Provincial and Territorial IPAC Canada representatives will be working on joint action plans to advocate for acceptance of the CNISP acute care definitions and the IPAC Canada Long Term Care case definitions, as well as an enhanced surveillance system.

World Toilet Day – November 19

Play your part in ensuring no one is left behind without sanitation <https://www.worldtoiletday.info/> World Toilet Day, celebrated on November 19th every year, is about inspiring action to tackle the global sanitation crisis and help achieve Sustainable Development Goal (SDG) 6, which promises sanitation for all by 2030.

Established by the World Toilet Organization in 2001, World Toilet Day was made an official UN day in 2013. UN-Water leads a taskforce of international agencies to campaign around a common theme.

Following is a description of the efforts to support this initiative by our chapter, IPAC SASKPIC, as provided by Chapter President, Karrie Yausie.

IPAC SASKPIC held a 50/50 draw at our fall annual education conference and AGM in September 2019 to assist with a project to end open defecation in Africa. This project's objective is to end open defecation and child mortality due to preventable diarrheal diseases.

The project is looking forward to the following results:

1. Improve sanitation coverage from 32% to 100%
2. End open defecation by construction of 1000 toilets that are to benefit 5000 people who are currently practicing open defecation leading to the rise in Cholera related diseases.
3. Reduce child mortality i.e. reducing the deaths caused by diarrheal diseases.
4. Reduce the incidence of diarrheal and also help prevent water contamination through open defecation (fecal coliform).
5. Reduce helminthic infections and eye conditions caused by poor sanitation.

SASKPIC raised \$200, which went towards purchasing 18 bags of cement and will help to construct four toilets. This will reduce open defecation by 20 people in Zimbabwe.

Happy World Toilet Day! 🌸



**2020 SUPPLEMENT TO THE
CANADIAN JOURNAL OF
INFECTION CONTROL
(Volume 35, Number 1, Spring 2020)**





We Are Ready.

Engineering Revolutionary Disinfectants for the War Against Microbes
Innovation | Formulation | Validation | Education

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Thank you to all the health care professionals helping combat COVID-19

SUPPLEMENT TO THE CANADIAN JOURNAL OF INFECTION CONTROL

(Volume 35, Number 1, spring 2020)

The following abstracts were accepted by the 2020 Scientific Program Committee, Abstracts Sub-Committee. Because the 2020 conference was cancelled, these abstracts were not presented.

MOVING KNOWLEDGE TO ACTION: HOW CAN WE OPTIMALLY SUPPORT DIFFERENT HEALTHCARE SETTINGS TO REACH THEIR IPAC GOALS?

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Issue: The Infection Prevention and Control (IPAC) department at Public Health Ontario (PHO) provides support to health care settings to enable consistent adoption of best practices in infection prevention and control (IPAC). The IPAC Regional Support unit plays a role in dissemination, knowledge exchange, and capacity building. To effectively prioritize the supports we provide it is essential that we understand the needs of our stakeholders.

Project: A needs assessment was conducted involving IPAC professionals in all healthcare sectors in Public Health Ontario's Central West region. The project was framed by the Knowledge to Action Cycle to support a full exploration of practice gaps, priorities, barriers and facilitators, and strategies. The objectives of the needs assessment were to: 1. Identify practices that are most in need of improvement; 2. Describe barriers influencing practice change; 3. Gather information on gaps in knowledge and skills, and 4. Describe how stakeholders currently receive support and their preferences for future supports. Multiple data sources were used to collect information from infection prevention and control professionals stakeholders in public health, primary care, dental, hospital, long-term care home, retirement homes, first responder, and home care organizations from April 1 to June 30, 2019. These data sources included: an online survey, interviews with public health units, inquiries captured in PHO's Stakeholder Relations Management database, and results of previous evaluations of educational sessions delivered by PHO from April 1, 2017, to March 31, 2019.

Results: Information was collected from eighteen Public Health Unit representatives and there were 135 responses to the survey, with 56% of respondents being from long-term care and retirement homes. The needs assessment identified the importance of tailoring supports by sector. A list of priority IPAC practice areas was generated for each sector, as well as the preferred modalities for receiving training and information. Across all sectors, stakeholders primarily face barriers to practice improvement that are related to the physical environment and resources (17%), and motivation-related barriers (beliefs) (40%). There was also a strong interest in further skill development around techniques to motivate and inspire colleagues and to secure buy-in.

Lesson Learned: The needs assessment was supported by multiple data sources. The survey gathered comprehensive information about specific barriers that contribute to challenges in improving IPAC practices that could be applied beyond our region. The needs assessment has provided information that will be used to prioritize areas of focus for group activities that help stakeholders identify and focus on specific practice gaps in these areas, specific barriers to change and exploration of strategies to guide improvements.

UGANDAN MEDICAL INTERNS INFECTION CONTROL KNOWLEDGE AND PRACTICES

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Issue: An assessment of the level of knowledge, attitudes, and practices of interning graduates of clinical medicine who were attached to government hospital in, central districts of Uganda.

Project: This was a cross-sectional survey responded to by 217 (response rate of 70%) new graduates who were about to start their internships in August 2018 in different central Ugandan hospitals. questionnaires with knowledge, attitude, and practices questions were distributed to the participants during a two-day internship orientation organized by the national internship committee.

Results: Out of 310 subjects approached, the survey was completed and returned by 217 (70%). More nurses (55.4%) failed the questions on odds of HIV transmission after a needle stick injury compared to 26.0% and 36.4% of medical and dental graduates, respectively ($\chi^2 = 24.06$ $p = 0.001$). There was no difference in proportions of those who re-sheath needles. Respondents who had an encounter with positive tuberculosis history when taking clinical notes while unprotected were not more motivated to use masks ($\chi^2 = 8.06$; $p = 0.06$). Nurses

and dentists reported more regular hand washing before and after patient contact compared to medical doctors.

Lessons Learned: Overall, the knowledge of infection control was not reassuring and the attitudes and practices appeared to be heavily influenced by the lack of emphasis on standard operating procedures in training hospitals visited as well as internship hospitals. There is little doubt that changes will happen given the lack of strict measure that enforce adherence to standard procedures in the area of infection control protocols, in most hospitals visited. A stricter approach to infection control must be made emphasized mainly in teaching hospitals to encourage students better understand the ever increasing need to control the spread of infection in hospital environments.

EVALUATION OF THE IMPLEMENTATION OF A SURVEILLANCE TOOLKIT IN LONG-TERM CARE

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Issue: Establishing a standardized and validated surveillance system in long-term care (LTC) is an important strategy to reduce health care-associated infections, analyze infection trends over time and to be compliant with legislative requirements.

Project: A surveillance toolkit was developed by Public Health Ontario and implemented in an LTC home corporation. All of the tools were developed based on current best practices consistent with the Provincial Infectious Diseases Advisory Committee, IPAC-Canada and the CDC National Healthcare Safety Network. The objective was to perform an evaluation to determine the facilitators, barriers and preferences related to the implementation of the surveillance toolkit by gathering and analyzing feedback from the participants. A variety of evaluation strategies were used including informal discussions through regular webinars, formal telephone and in-person interviews and online surveys. All participants, including the corporate infection control professional (ICP), the health informatics coordinator (HIC), the ICP designates from each home and front-line nurses were invited to participate in the evaluation.

Results: A total of 66.6% (12/18) of the ICP designates participated in telephone surveys. In-person interviews were conducted for the corporate ICP and the health informatics coordinator. Nursing staff from only 22.2% (4/18) LTC homes participated in the online survey. The majority of the ICP designates felt they were adequately trained (83%; 10/12), supported (83%; 10/12) and prepared (100%; 12/12) to implement the toolkit but preferred in-person training sessions over webinars. Although they didn't use all of the tools consistently, they felt the toolkit improved their surveillance process by increasing the accuracy and consistency of the tracking of infections and analysis of data. The HIC and the corporate ICP identified areas for improvement including the use of more interactive activities during training sessions, the provision of training to front-line nurses and more involvement of IPAC advisory committees and leadership. They both also identified heavy workloads, technical challenges and insufficient resources as a barrier to implementation.

Lesson Learned: Learnings from this initiative will be used to inform the planning and implementation of future projects. Future planning stages will focus on ensuring adequate time is provided to accommodate unexpected delays and challenges, identifying competing priorities early to be able to create and implement a strategy to maintain momentum, and strengthening communication especially in the event of role changes. In the future, opportunities for more in-person training sessions will be reviewed and the tool will be revised and assessed for simplicity and user-friendliness, to ensure comprehension and usability isn't a barrier to implementation.

SUPPLEMENT TO THE CANADIAN JOURNAL OF INFECTION CONTROL

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DISCONTINUING ARO SCREENING IN MENTAL HEALTH SETTINGS: A CHANGE MANAGEMENT PROJECT

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Issue: Screening patients on admission to mental health units for antibiotic resistant organisms (ARO) is problematic. Patients may not have the capacity to answer risk assessment questions accurately on admission. Staff may not be able to safely collect specimens within the first 24 hours, as required by the Alberta Health Services (AHS) protocol. Collection delays can lead to poor quality surveillance data because it is not clear if the patient had an ARO on arrival or acquired it after admission. Further, in 2018 AHS refocused transmission prevention efforts on routine practices and moved away from contact precautions for most ARO positive patients on mental health units. This change makes the value of continuing ARO admission screening questionable. However, cessation of ARO screening must be carefully considered because practice changes can be difficult to implement and sustain.

Project: The Prosci Change Management process and tools were used to support Infection Control Professionals (ICP) and unit staff on AHS mental health units in Central Zone to prepare for, implement and sustain discontinuation of ARO admission screening. Face-to-face and teleconference meetings were organized with staff. The purpose was to engage staff and explain what was going to change and why, identify strategies to successfully implement change on each unit, establish mitigation strategies for predictable barriers, and to celebrate successes. Local clinical educators were recruited to assist with implementation and reinforcement going forward.

Results: There was a 94% reduction in methicillin resistant *Staphylococcus aureus* screening swabs sent to the lab from mental health units and a corresponding \$21,360 reduction in annual lab processing costs. There was an annual savings of \$5,400 for the infection control program because of a reduction in time spent to educate staff on use of the screening tool and audit compliance. A qualitative analysis of staff experiences revealed staff had a positive experience with the change including before, during and after implementation. Leadership appreciated the use of statistical data to demonstrate the need for change and the positive impact the change had on the organization.

Lessons Learned: A structured change management approach helped build awareness and desire for change. Early meetings with staff helped identify concerns about how the change would impact them and ways to successfully implement the change on their unit. Proactive engagement supported staff to take ownership of the change which resulted in reduced resistance and increased adoption. Learning on unit-based clinical educators, who staff trusted and respected as practice experts to roll out the change, contributed to the project's success. Finally, through a structured change management approach ICPs shifted from their usual role of leading a change to supporting others to lead and own the change.

GYM ROUTINE INFECTION PREVENTION PROGRAM-AN INNOVATIVE, COLLABORATIVE APPROACH TOWARDS EXCELLENCE

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Background: Gym Routine Infection Prevention program (G.R.I.P.)'s purpose was to establish a monitoring program for hand hygiene and equipment disinfection in six Rehabilitation Complex Continuing Care gymnasiums. Our goal was to create a safe environment by preventing acquisition of health care associated infections by promotion of infection prevention and control (IPAC) best practices.

Methods: This project was launched in a facility with 276 inpatient beds including outpatient rehabilitation services. The staff comprised of Physiotherapists, Occupational therapist, Rehabilitation Assistants, Environmental services and Nurses with a focus on hand hygiene, cleaning and disinfecting high touch areas of equipment wiping with the recommended contact time for disinfection. Feedback was gathered from twenty gymnasium staff through in-person interviews and e-mails that included current perception of hand hygiene practices and the idea of using a customized tool to monitor hand hygiene and equipment disinfection in gyms. The audit tool was based on the Just Clean Your Hands (JCYH) program by Public Health Ontario. Feedback gathered from staff elicited modification to better suit the gym environment. The JCYH tool has the first moment involving contact with patient or patient's environment. The modified tool rephrased the first moment as contact with patient and patient's environment equivalent to equipment. Further this tool was classified into two

sections: required and recommended practices. Lacking baseline data, our target was to achieve 80% of overall compliance.

Required Moments include: Staff performing hand hygiene before and after patient contact; Staff performing hand hygiene after patient contact; Staff disinfecting equipment before patient use; Staff disinfecting equipment after patient use.

Recommended Moments include: Three additional moments are monitored, but excluded from counts, reason being, they may not always be feasible, like limited mobility of patient's hands; Staff performing hand hygiene on entry and exiting a gym; Staff encourage patients to perform hygiene on entry and exit to the gym; Staff encourage patients to perform hand hygiene before and after activities.

Results: Average three monthly rates from January to September, staff compliance of hand hygiene before patient contact was 76%, 93 %, 80%; after patient contact was 96%, 96%, 96%; equipment disinfection before patient use was 79 %, 79%, 91% and 90%, 97%, 97% after patient use.

Conclusion: This initiative enabled our facility to identify areas for improvement such as reinforcement on education and a plan to sustain higher compliance of hand hygiene and cleaning of equipment. Moving forward, our plan is to collect and evaluate 30-50 observations per gym and result will be shared on a quarterly basis. The intent is to expand this process to outpatient gym as well.

A DESCRIPTIVE ANALYSIS OF IPAC COMPLAINTS, INFRACTIONS AND LAPSES IN PERSONAL SERVICE SETTINGS IN ONTARIO IN 2018

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Background: In Ontario, Public Health Inspectors assess whether or not premises are compliant with infection prevention and control (IPAC) best practices, as outlined in the provincial Guide to IPAC in Personal Service Settings document (2018). Compliance is assessed via annual routine compliance inspections and through additional non-routine (i.e., compliant-driven) demand inspections of personal service settings (PSS). Deviations from IPAC best practice may be further deemed an IPAC lapse if the infraction has the potential to cause an infection in a client. The objective of this study was to understand the prevalence of common PSS infractions by service type (i.e., hair/barbering, aesthetics or body modification) by analyzing the frequency of specific infractions identified during PSS inspections and IPAC lapse investigations in PSS.

Methods: PSS inspection data were obtained from three of 35 geographically diverse public health units (PHU) in Ontario for all PSS inspections and re-inspections conducted in 2018, as well as for all publicly disclosed IPAC lapses in all PHUs in 2018. Data fields included premise type, inspection date and details regarding specific infractions. Descriptive analyses were performed in order to identify specific service types that are commonly associated with infractions as well as those specific practices that are commonly identified to be non-compliant with best practice (e.g., reuse of single use items, inadequate reprocessing of reusable items). Data from routine and non-routine inspections were compared to assess if the same services and practices were routinely identified to be non-compliant.

Results: PSS offering aesthetics were more commonly associated with infractions and with IPAC lapses compared to premises offering hair/barbering or body modification services. Common infractions (regardless of the reason for inspection) included: improper use, storage and/or selection of disinfection products, re-use of items intended to be single-use, and failure to reprocess (clean and disinfect or sterilize) reusable instruments after use. Premises offering aesthetics (and particularly nail services) were the most frequently associated with a complaint due to infection.

Conclusions: Development of infection control resources for specific PSS services, targeted at those practices commonly identified to be non-compliant with infection control best practices, could assist in consistent implementation, awareness and reinforcement of IPAC practices in PSS across Ontario. Ideally will result in fewer infractions being identified on inspection by PHUs. Upstream operator education and infraction prevention could also contribute to a reduction in the number of public complaints received regarding these premises.

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EVALUATION OF AN INFECTION PREVENTION AND CONTROL PATIENT EDUCATION INITIATIVE; THE PATIENT'S PERSPECTIVE

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Objective: Over the last several years, IPAC has been providing education to all patients admitted with a newly diagnosed Antibiotic Resistant Organism (ARO). IPAC conducted a six-month evaluation of this education with patients and families to evaluate the effectiveness of the information being provided.

Methods: Patient education was provided within 72 hours of diagnosis. The evaluation was conducted by administering a post-education patient questionnaire 48 hours following this initial patient education. This evaluation was conducted for a six-month period from May to November 2019. The questionnaire was developed by IPAC with feedback from Patient and Family Advisory Committee.

Results: Over the six-month period 123 patients were identified as eligible for education, 98 of those patients received education on the specific ARO. Of the 98 patients, 34 patients were evaluated using the questionnaire. All of the patients understood why they were on isolation precautions and appreciated speaking to the infection control practitioner. All of the patients received a patient education pamphlet and most of them found it helpful. Patients and families expressed the importance of receiving the information in a timely manner and some requested additional information to be provided both in person as well as in the pamphlet.

Conclusions: ARO education helps patients to understand the reason for being managed on isolation precautions. Discussions with patients provided valuable feedback on how IPAC can improve our processes to better address patient needs. As a result of this evaluation, IPAC will continue to provide patient education in a timely manner for all new ARO patients and we will be reviewing our education pamphlets.

ABSENCE OF TRANSMISSION OF CARBAPENEMASE GENES IN A LONG-TERM CARE FACILITY

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Objective: To evaluate the transmission of carbapenemase genes NDM and OXA-48 in a long-term-care facility (LTCF) after 14 months of routine practices. The status of the index case, colonized with a carbapenemase-producing Enterobacteriaceae (CPE), was originally unknown to the LTCF and thus additional infection prevention and control (IPC) precautions were not implemented.

Methods: Contacts of the index case underwent screening for CPE colonization using rectal swabs collected on days zero, seven, and 21 after the exposure was identified. Swabs were cultured on CHROMagar mSuperCARBA agar (CHROMagar, Paris, France) and Gram-negative, carbapenem-resistant microorganisms were identified to species level using matrix-assisted laser desorption/ionization-time of flight mass spectrometry (MALDI-TOF MS, Bruker Daltonics; Billerica, MA, USA). Phenotypic confirmation of carbapenemase production by Enterobacteriaceae isolates was performed using the Neo-Rapid CARB kit (Rosco Diagnostica; Taastrup, Denmark). Analysis of the index CPE isolate as well as other CPE isolates was performed using whole genome sequencing (WGS) to establish whether the CPE isolates were identical.

Results: Of 19 screened contacts, one was colonized with a CPE. The presence of OXA-48 was discovered by polymerase chain reaction. WGS of the index isolate and the contact isolate revealed the contact to harbour an OXA-181, an OXA-48-like element differing by 4 amino acids but causing a positive PCR result, whereas the index case harboured a true OXA-48 by WGS. This established a lack of relation to the OXA-48 or NDM of the index case. The discovery of the OXA-181 isolate led to another 11 contacts screened for CPE. Among these, CPE was not recovered.

Conclusion: No transmission of NDM and OXA-48 genes occurred among contacts of a CPE-positive index case after 14 months of routine IPC practices in a LTCF.

GOING GREEN TO SAVE THE QUEEN

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Issue: In the spring of 2019 a multidisciplinary team, including members from Site management, Centralized Procurement Supply Management (CPSM), and Infection Prevention and Control (IPC) explored the potential benefits of adjusting the distribution of the most frequently used low level disinfectant (LLD) wipes used at the site. As per past practice, the most commonly used LLD was an ammonium chloride and isopropanol wipe. The hydrogen peroxide wipe offered additional microbial coverage and equipment compatibility while having lower toxicity and cost per wipe than the ammonium chloride and isopropanol counterpart.

Project: A site-wide changeover was scheduled to increase the usage of hydrogen peroxide wipes and decrease the usage of ammonium chloride and isopropanol wipes respectively. As such the warehouse and unit managers were notified of the supply change six weeks in advance. IPC provided education regarding chemical and equipment compatibilities and worked with clinical areas to interpret Manufactures Instructions for Use (MIFU). Clinical areas were encouraged to maintain compliance with CSA standards achieving appropriate levels of disinfection whilst using MIFU approved chemicals (CSA-Z314-18).

Results: As anticipated, the site has seen substantial and cascading benefits from this initiative. A six-month retrospective comparison indicates that since the roll-out the site has seen a reduction of 571 tubs of wipes per month. The total number of wipes used per month has actually increased by approximately 44% due to the smaller size and number of wipes in each hydrogen peroxide tub. This change has resulted \$5,071.31 cost savings per month. This extrapolates to annual savings of over 6,800 tubs and \$60,855 respectively. Unlike the ammonium chloride and isopropanol wipe, the hydrogen peroxide wipe has a lower toxicity and does not require routine glove use. Therefore, there has been an incidental decrease in glove use. The site is using 44 less boxes (over 11,000 gloves) per month; resulting in a cost savings of \$472.56 per month (over \$5,670 annually). Other advantages include a decrease in recycling, disposal and plumbing costs. During this time the clinical areas have reported good integration and usage compliance. There have been no adverse events and only a few temporary off-gassing complaints. This analysis does not take into consideration the utilization and cost of the other LLD wipes on site.

Lesson Learned: The success of this project was maximized by stakeholder engagement prior to the implementation; knowing contractual obligations; and site preparation. This result indicates that challenging past practice can be a worthwhile cost savings measure while maintaining compatibility and compliance in cleaning non-critical equipment. With the continual political and cultural movement towards environmentally conscious practice, it is important to have progressive discussions and evaluations regarding chemical usage and the resulting sequela.

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REDUCING INFECTIOUS DISEASE EXPOSURES IN THE EMERGENCY DEPARTMENT THROUGH PROCESS IMPROVEMENT MEASURES IN TRIAGE

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Issue: An effective screening process for infectious diseases is required in the triage area of Emergency Departments so that patients with suspicion for transmissible infections can be promptly placed on additional precautions. Appropriate triaging of patients includes querying them for infective symptoms that help dictate the need for certain types of precautions. Though the triage nurses enter the answers to these questions into the electronic medical record (EMR), the precautions are not automatically initiated. Instead, a printout is generated with an indication to start additional precautions, which are manually entered into the EMR by nursing staff within the department. This step was prone to error and resulted in staff being exposed to various infectious diseases. A process improvement project was undertaken to facilitate triage communication, the initiation of additional precautions, and to minimize infectious exposures.

Project: In triage, coloured stickers corresponding to the three types of additional precautions were added to the printout as a stronger visual cue to enter the precautions into EMR. Education was provided during daily unit safety huddles regarding the use of stickers for additional precaution initiation in EMR (with a four-week implementation phase allowing two weeks to disseminate changes). Laboratory confirmed exposures were reported to management using the electronic incident reporting system so that follow up could occur with the involved staff. The exposures were also presented to the department during daily safety huddles. The importance of triage in identifying potential infectious diseases was emphasized during the IPAC module of the educational professional development days. Emerging infectious diseases were also discussed and emphasized the IPAC resources available to triage. The proportions of patients triaged with febrile respiratory illness (FRI) and diarrhea 12 weeks pre- and post-intervention were measured along with the number of incidents reported electronically.

Results: The proportion of isolated patients with FRI and diarrhea increased (51.9% to 61.9% for patients with FRI, and 41.0% to 44.4% for patients with diarrhea). Based on the number of incidents reported, confirmed exposures were further reduced (from 13 to seven incidents seven months pre- and post-intervention).

Lesson Learned: Education efforts in addition to the quality improvement initiatives clarified the triage process in identifying infectious diseases. By discussing common and emerging infectious diseases with the intent to raise awareness of the importance of the triage process, IPAC took a more active role in the department in order to minimize exposures to all infectious diseases within the department. Adding visual cues to enter isolations in the EMR further aided in reducing exposures.

PNEUMOCYSTIS JIROVECI PNEUMONIA IN HEALTHCARE SETTINGS: INVESTIGATIONS ARE RECOMMENDED IF THERE IS A PERCEIVED INCREASE IN CASES AND WHEN THERE IS SUSPICION OF NOSOCOMIAL ACQUISITION

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Background/Objectives: *Pneumocystis jirovecii* is a fungus implicated in causing pneumonia in immune compromised hosts and is associated with a high mortality rate. Outbreaks of *P. jirovecii* pneumonia (PJP) have been reported in inpatient and outpatient settings where person-to-person transmission is thought to have occurred. However, the exact mode of transmission, incubation period, and distinction between colonization and infection status makes outbreak investigations challenging. Here, we describe an investigation of a potential PJP outbreak in a solid organ transplant program at a quaternary inpatient setting.

Methods: Once notified by the transplant team of potential increase in PJP cases, the Infection Prevention and Control (IPAC) department conducted chart reviews of each suspected case, which included the admission date, symptom onset and prior inpatient and outpatient visits up to six months preceding this, date of prophylaxis initiation, and test positive date. We investigated for potential epidemiological links with other confirmed PJP cases using temporal and geographic mapping. We also established a baseline number of cases and tests ordered for this organism. Organisms, which were identified using PCR on bronchoalveolar lavage specimens, were genotyped by MLST (CYB, Mt26S and SOD targets sequenced) along with a control case not suspected in the potential outbreak.

Results: Five patients in the liver transplant population (four liver transplant and one pre-transplant) developed PJP within one month and none of the patients had

received PJP prophylaxis at the time of symptom onset. The increase in cases was not related to an increase in testing for *P. jirovecii* based on baseline testing over the past three years. Four cases were genotyped by MLST; one was untypeable and three had mixed genotypes. One case had a mixed genotype comprising of genotypes from two other patients, but no epidemiological links existed between these cases were found (defined as being on the same floor on the same day). Only two instances of potential epidemiological links were found, however, the genotyping did not substantiate transmission.

Conclusion: An increase in PJP cases was found over a period of one month that could not be due to an increase in testing. Epidemiological and molecular data concluded that nosocomial transmission did not occur. This investigation highlights the need to conduct investigations of PJP cases when increased incidence is discovered and that both epidemiological and molecular data are needed to make conclusions regarding transmission. The IPAC program is now line listing cases of PJP and a single potential nosocomial case is considered a sentinel event meriting documenting and investigating.

NORTHERN SASKATCHEWAN FIRST NATIONS HEALTH CENTRES EXPERIENCE: IMPACT OF SUPPORT VISITS ON INFECTION PREVENTION AND CONTROL (IPAC) PRACTICES

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Issue: The incidence of Healthcare-Associated Infections has been increasing gradually over the years in First Nations health centres in Northern Saskatchewan. Compliance with Infection Prevention and Control (IPAC) best practices is recommended to prevent the spread of infections in healthcare settings. Yet, this remains a challenge in many Northern Saskatchewan First Nations health centres. Access to handwashing products, high turnover of staff, concerns about the potential misuse of alcohol-based hand rubs, competing priorities, and limited educational opportunities are factors that contribute to this challenge.

Project: This project started in 2017, and it is ongoing. Before its commencement, the IPAC working group members examined different ways to improve IPAC practices in health centres and nursing stations under the jurisdiction of the Northern Inter-Tribal Health Authority (NITHA). Support visits with an educational session were identified as the most appropriate intervention. To guide these visits, a checklist was developed to assess IPC practices in four major areas, namely; Administrative practices and surveillance, Environment of care, Hand hygiene practices, and Reprocessing of medical equipment. During each visit, the checklist was used to initiate discussion and identify areas for improvement. Each visit concluded with an educational session that was tailored to address the areas for improvement that were identified. After each visit, the IPC Advisor sends feedback of the support visit to the facility's health directors/Nurse managers, and the partner's health director for action on areas that require attention.

Results: The support visits has led to increased hand hygiene compliance rate, adequate knowledge of how to prevent infection in the healthcare settings, enhanced relationships between the IPC program and health services in the communities, change in IPC practices such as switching from the use of non-alcohol based hand rubs to the use of alcohol-based hand rubs in their clinics, increase in the number of consults or request to the IPC program for information or resources, and increased collaboration between the IPC Advisor and the IPC Working group in the partnership. Also, healthcare personnel have adequate knowledge of the component of routine practices. Furthermore, the NITHA infection control manual is now available in most of the health facilities.

Lesson Learned: Face-face communication through support visits is a cost-effective way to prevent and control the spread of infection and also improve IPC practices within existing resource levels. The IPC Advisor will continue to engage the community health centres through the support visit initiative in order to further improve IPAC practices in northern Saskatchewan.

SUPPLEMENT TO THE CANADIAN JOURNAL OF INFECTION CONTROL

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ASSESSMENT OF MICROBIAL REMOVAL AND RINSABILITY OF NON-ANTIBACTERIAL SOAPS

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Background/Objectives: Hand hygiene (HH) is instrumental for preventing the transmission of pathogens. Handwashing is a frequent HH practice to remove or kill microbes on the skin; both non-antibacterial (NAB) and antibacterial (AB) soaps are acceptable for healthcare use. Studies have shown AB soaps to be more effective than NAB soaps in microbe reduction, however, recent regulatory actions have encouraged the reduction or elimination of AB use. There is a need to understand the formula characteristics that drive microbial removal enabling the development of more effective NAB soaps.

Methods: A commercially available NAB test soap, optimized for microbial removal, was compared to a commercially available NAB reference soap in a series of studies. Interfacial tension (IFT), a measure of the interaction between soap and skin, was measured on the skin to quantify wetting and spreadability. The soaps were evaluated for microbial removal by ASTM E2755. Using *Serratia marcescens*, 12 volunteers applied 5.0 mL of each soap to dry hands, lathered and rinsed, each for 30 seconds. In a second study, *Staphylococcus aureus* was used in which 12 volunteers applied 1.8 mL soap to dry hands, lathered for 30 seconds, and rinsed for 10 seconds. To understand the relationship of IFT and rinsability, a blinded, observational study was conducted to quantify rinsability of each soap under different flow rates; 0.50, 0.35, and 0.25 gallons per minute (GPM). Subjects (n=59) participated in the study where 0.9 mL of a soap was used under varying water outputs. Time to complete rinsing of their hands was documented for each subject. Rinsing time (min) and water consumption (gallons (G)) were calculated. Results: The test soap had a significantly lower IFT (1.55 mN/m) compared to the reference soap (2.27 mN/m) (p=0.01) indicating improved wetting (i.e. spreading) and coverage of the hands. The test soap removed significantly more microbes for both ASTM E2755 studies. *S. marcescens*: test soap = 2.26 log₁₀ CFU reduction, reference soap = 1.70 log₁₀ CFU reduction (p<0.0001). *S. aureus*: test soap = 1.46 log₁₀ CFU reduction, reference soap = 1.12 log₁₀ CFU reduction (p=0.024). The test soap required less time and water to rinse at all flow rates. The test soap had statistically lower cumulative water consumption across all subjects (11.62 G, reference = 12.52 G, p = 0.024) and cumulative time spent rinsing (32.11 min, reference = 34.80 min, p=0.024) compared to the reference soap.

Conclusion: Reducing IFT and improving the spreading and coverage of the soap may allow for increased interaction with microbes across the skin's complex topography and better rinsability. Formulation of NAB soaps affects microbial removal. NAB soaps can be formulated to remove significantly more microbes than standard, reference soaps the test soap formula rinses faster and uses less water than the standard, reference NAB soap.

SAFE INTRA-FACILITY TRANSPORT OF PATIENTS ON ADDITIONAL PRECAUTIONS

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Issue: Preventing transmission of communicable diseases during patient transportation in hospital requires clear communication, a common understanding of preventive measures among staff and consistent application of these measures. Units sending patients must communicate the need for precautions with transportation staff and the receiving unit. Patients must be prepared prior to transportation in a way that contains pathogens on their person. Staff must employ established infection control measures when interacting with the patient and keep transportation equipment like wheelchairs and stretchers clean. Deficits in understanding and consistently applying these measures were identified at a central Alberta hospital.

Project: Infection Control and Clinical Quality Improvement departments partnered to lead a team of staff from medical and surgical units, outpatient departments, porters and clinical educators to build and employ an effective solution. The Minimum Specs Liberating Structures facilitation technique was used to identify what absolutely must be done, and not done, for safe transportation. A focus on cleanliness and hand hygiene were identified. Core elements included: a visual flag on the patient's chart, incorporating a verbal hand off between sending and receiving units and porters, disinfecting the handles of wheelchairs and stretchers, preparing patients with clean hands and clothes and a mask if the patient has a respiratory illness, and staff adherence to the Hand Hygiene Moments. Porters

are not required to don gloves, masks or gowns during transportation. These core elements actually align with the original process. Thus, the barrier to safe transport was staff knowledge and consistent implementation of the process. A toolkit was prepared with flow maps, instructional videos, pocket reference cards, and What's In It For Me and FAQ sheets to address common questions. A single process was initially prepared that was later adapted by Emergency and Intensive Care Unit, based on local needs, to improve adoption. Workgroup members, clinical educators and local champions were recruited to teach and reinforce the process on their unit. Porter staff are involved in each patient transfer and tracked process compliance before and after the education intervention.

Results: Compliance with safe transportation practices increased overall by 23%. In a qualitative survey of staff experience, 85% were aware of the process and 87% understood their role in the process.

Lessons Learned: Forging strong interdisciplinary relationships was beneficial to identifying knowledge gaps and developing a set of practice tools for use by all disciplines. Early involvement, active collaboration, stakeholder engagement, and adaptability to different practice settings are essential to the successful implementation and uptake of a patient management process.

INVESTIGATION OF REPROCESSED INSTRUMENTS SPOTTING

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Issue: Reusable medical devices (MD) need proper reprocessing to ensure devices perform as intended and are safe for reuse. Inadequate reprocessing may be caused by factors such as failure in cleaning, disinfection, sterilization or rinsing of MD, by water quality, type and amount of detergent, or additives. Any of these may be associated with visible water-like spotting on MD. Spotting can interfere with sterilization and functioning of MD and should be managed in real time to eliminate any risks to patients' safety. Close monitoring of the reprocessing of MD leads to early identification of spotting and the initiation of appropriate steps in addressing the cause(s). Infection control professionals (ICPs) were informed of spotting on reprocessed MD in a rural central Alberta hospital by the medical device reprocessing (MDR) staff in May 2019.

Project: Diagnosing the cause(s) of MD spotting can be challenging. A multidisciplinary team (MDT) of ICPs, MDR staff, facility maintenance and engineering staff, the medical officer of health and a public health inspector was established to manage the issue. The team confirmed that they were dealing with spotting caused by a residue as opposed to staining. The vendor of the automated washer disinfectant (WD) machine was consulted. Water quality testing, preventive maintenance on the WD and re-calibration of the detergent delivery was carried out. This did not resolve the issue. The MDT then recommended that all operational aspects of MDR be carefully reviewed and preventive maintenance done on the reverse osmosis (RO) water system prior to any repeat water testing. The team met five times between July 30 and October 30, 2019, to successfully complete the investigation. On October 18, 2019, maintenance of the WD and RO system was done, the detergent delivery rate halved, the rinse cycle doubled and the RO rinse time decreased from 2 minutes to 1.5 minutes.

Results: The above actions successfully stopped the spotting on the MD. The vendors posited that decreasing the detergent delivery rate to half played a significant role in resolving the spotting. Two months after there continues to be no instrument spotting.

Lessons Learned: Recognizing that no two MD are the same and following manufacturer instruction for use for any automated WD is advisable at all times. Setting up clear communication guidelines between the various departments within a rural healthcare site will ensure a well-coordinated and effective interdepartmental collaboration. Most importantly, acceptable levels of change in calibration of detergents, lubricants and other products used in automated washer disinfectors may resolve issues such as spotting on MD. Vendors of these machines can provide and assist in acceptable calibration in product measures. Consistent communication between the vendors and the MDR team regarding reprocessing of MD is important in making accurate, timely diagnosis of problems.

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NO MOTION FOR LOTION

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Issue: The World Health Organization, Public Health Agency of Canada and the Center for Disease Control all recommend the routine use of lotions in the healthcare setting to maintain and improve skin integrity. A site audit was initiated to review the lotion provided. The audit determined the approximate quantity of lotion product that has exceeded the recommended shelf-life, discuss optimal placement and provide recommendations for the disposal of expired product. Having the proper amount of product and optimized location will lead to less waste, increased utilization and therefore improved skin integrity among healthcare staff.

Project: A sample of in-patient and out-patient areas at Rockyview General Hospital in Calgary, Alberta were selected for auditing. An audit included an examination of the physical location to identify and record placement and expiry status of the lotion dispensers as well as a brief qualitative exploration of the lotion utilization culture.

Results: Nine separate areas were audited for this project, including six in-patient units; two out-patient areas; and 1 support area. The manufacturing dates for the product ranged from 2004-2018. A total of 155 lotion dispensers were audited; 87% (n=135) of the product was either expired (past recommended shelf-life) or indeterminate (not appropriately labelled with manufacturing date). Areas that had a high number of dispensers also had a high proportion of expired product. It was also noted that some housekeeping closets and unit supply cabinets had expired lotion. In discussion with the end-users and area managers, the foremost conclusion was underutilization due to product dissatisfaction including the smell, texture and prolonged wet time. Instead, staff are using alternative lotion products often brought in from home. Only 13% (n=20) of the lotion dispensers had not exceeded the recommended shelf-life. The locations in which the lotion had not exceeded the recommended shelf-life included hallway sinks, nursing desk sinks and other staff only locations. A site wide decision was made to discard all expired product and deactivate and remove all underutilized lotion dispensers.

Lesson Learned: This project revealed limited use of lotion throughout areas in the hospital resulting in excessive amounts of expired product being available for use. Healthcare facilities should ensure lotion is properly placed to maximize use and check product expiry dates on a regular basis. Likewise, it is important to have an accountability framework in place to monitor environmental service protocols for cleaning and replenishing dispensers. Staff have been encouraged to share their feedback on the current lotion product through an internal provincial product feedback program. Infection control staff should work to improve compliance with approved products otherwise staff may bring in products that do not adhere to local policy.

AHU 902: IPAC CONSIDERATIONS FOR AN HVAC SHUTDOWN AND TIE IN OF A NEW OPERATING ROOM AIR HANDLING UNIT

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Issue: A redevelopment project at an acute care hospital in Toronto required a new air handling unit (AHU) to increase capacity in the Perioperative Services Department. This necessitated a 16-hour shutdown of the existing AHU and closure of 12 operating rooms (ORs) and the Post Anaesthetic Care Unit (PACU). A shut down of air supply and exhaust fans impacts humidity, which may affect equipment and supply sterility. It also increases the potential for dust contamination of the OR environment. A procedure outlining a complete air shutdown in an OR was not found. A multidisciplinary team (MDT) was formed to mitigate the infection control risks of the shutdown.

Project: MDT meetings informed the infection control risk assessment. Alternative locations for emergency patient surgeries and recovery were required. Equipment and supplies were moved to either a safe zone created inside Pod #1, an external classroom or the elective out-patient surgical area. Pod #1 was made safe for storage of large equipment by sealing entry doors and isolating the air supply diffusers. Case carts, sterile implants and sterile supplies needed for emergency surgery on the weekend, were moved to a humidity controlled elective out-patient surgical department, located one floor below. Risk mitigation strategies were developed to minimize dust contamination from 1. debris falling from exhaust grills during existing AHU shut down; 2. the potential for supply fans to push debris past the filter system during start-up of the new AHU. Challenges included time for completion, required human resources, safe decant and relocation of sterile supply carts, erection of barriers and time for cleaning.

Results: Work was done over a long weekend to allow for the time estimated by the

MDT for completion. The project manager, dedicated healthcare staff, Infection Prevention and Control (IPAC) and Operational Readiness were on site to support and assist. The designated safe zone lacked HEPA filters in supply air vents, requiring external filters to be added. IPAC staff on site was critical to provide in the moment advice on the movement of supplies prior to and upon completion of the shutdown, and on adjustment of barriers due to lack of time for completion. IPAC assumed responsibility for approving terminal cleans.

Lessons Learned: 1. Time and resources were underestimated and contractors had to work a double shift; 2. Mistaken removal of supplies increased restocking time. Communication was key; 3. Missing HEPA filters necessitated addition of external filters and relocation for equipment; 4. Number of knowledgeable health care staff to receive surgical equipment and supplies was inadequate; 5. IPAC and on-site staff worked together to address and solve challenging or unexpected issues; 6. Future shutdowns should include added time for unexpected challenges.

USING THE PROCESS OF SELF-MONITORING TO IMPROVE HAND HYGIENE COMPLIANCE AND FREQUENCY OF OBSERVATIONS

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Issue: Smoky Lake Healthcare facility (SML) had difficulty collecting hand hygiene observations to report a regular hand hygiene compliance rate. SML recruits and trains staff to act as Site-Based Reviewers (SBRs) collecting observations through direct observation. In the fiscal year 2017/18, the SBRs collected 138 observations and had a 90% hand hygiene compliance rate. Reviewer fatigue and staff not wanting to take on a peer auditing role have steadily decreased the number of observations collected over time.

Project: The project lasted three months. The site Infection Control Professional trained acute care nursing staff to collect hand hygiene observations using the provincial training tools. Portable notepads were supplied to staff to record moments of hand hygiene throughout their shift. The trained staff collected hand hygiene observations on themselves using the self-monitoring process. Two times during the project an independent hand hygiene observer would collect observations on the nursing unit. The results from the self-monitoring and the independent observer were compared to check for differences in compliance. Results: Eleven nurses completed the provincial training tools. The number of observations collected was 251 and the hand hygiene compliance was 92%. The independent observer collected 57 observations and the hand hygiene compliance was 86%.

Lessons Learned: Staff involved in the project collaborated on the challenges of when to perform hand hygiene. There were infrastructure changes requested from staff following the project. Staff awareness of hand hygiene increased during the project in response to their direct involvement in the collection of observations. SML acute care staff continue to collect hand hygiene observations using the self-monitoring process.

RISK FACTORS FOR DEVELOPMENT OF E. COLI BACTERAEMIA IN PATIENTS WITH CANCER. THE WORK OF THE E. COLI CANCER COLLABORATIVE (UK)

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Background: *Escherichia coli* is a common cause of blood stream infections (BSI) in the UK which has risen significantly in the last decade. Published figures for *E. coli* BSI show higher rates in specialist cancer centres than in other hospitals, but the aetiology in oncology patients is not fully understood. This work describes a multicentre, multidisciplinary collaborative audit to identify risk factors in cancer patients in order to target preventative strategies for improvement of patient care and outcomes.

Methods: Five UK cancer centres collaborated to review how *E. coli* affects oncology patients. A key part of this work was an audit of all cases of *E. coli* BSI in patients over 18 years that met UK HCAI surveillance definitions. A multidisciplinary team of clinicians, nurses and pharmacists designed the audit to include more than 60 variable factors which may affect cancer patients. Results from the five centres were anonymized and amalgamated to give a stronger data set.

Results: The risk factors for *E. coli* among these cancer patients showed marked difference from that seen in the general UK population. The affected population was much younger and when accounting for the multiple healthcare interactions these patients have, there was a much higher rate of healthcare associated infection onset than seen in the general population. Associated mortality and

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rates of antimicrobial resistance were also higher. Common univariate risk factors associated with BSI include use of systemic chemotherapy, neutropaenia, presence of acute kidney injury, presence of an invasive device, antimicrobial therapy, use of proton pump inhibitors and lack of independent hydration. Conclusion: This audit demonstrates why *E. coli* BSI is higher in cancer centres. Further work is ongoing to refine this data set and re-audit. The audit adds to our understanding of the impact of *E. coli* BSI in this vulnerable patient population and enables equitable benchmarking of cancer patients with other patient groups.

EMERGENCY DEPARTMENT SCREENING FOR HIGH CONSEQUENCE PATHOGENS

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Issue: With the recent identification of a novel coronavirus in Wuhan, China, the importance of screening patients with infectious symptoms for a relevant travel history is once again top of mind. Identifying syndromic patients with epidemiologic exposure on presentation is paramount to protecting other patients and healthcare workers.

Project: Our team sought to 1) review and enhance the symptom and travel screening process in the emergency department (ED), and 2) to devise a system to ensure all HCWs have easy access to up to date information on areas of the world where high consequence pathogens (HCP) are currently circulating. A stakeholder group from the ED was engaged in the quality improvement project.

Results: Chart audits in the ED revealed low completion rates of the previous screening form (30/98, 31%); however, patients presenting with infectious symptoms were appropriately placed on Additional Precautions most of the time (9/10, 90%). Feedback from ED stakeholders suggested that the main barrier to Infection Prevention and Control (IPAC) screening was the lack of updated advisories in triage and the usability of the screening form. The IPAC team worked in conjunction with ED staff to make the screening form more concise and user friendly, and an intranet page, listing HCP areas of concern, was created along with a process to ensure this information is regularly reviewed and updated. **Lessons Learned:** These simple process changes integrated into the ED workflow have enabled improved IPAC screening. However, much of the ED triage process is done electronically and so the completion of a paper form remains a barrier. As a future step, it is hypothesized that a technological intervention that incorporates symptom and travel screening as a forced function into the existing electronic triage process would yield higher compliance, but this is currently not feasible. The creation of an intranet page listing HCP areas of concern has been beneficial in that staff have continuous access to this information. The process of ensuring this information is kept up to date is not without its limitations however, and so advocating for the creation of a national or provincial IPAC-focussed resource would ensure all healthcare organizations have access to current HCP areas of concern.

HELP! WE'VE BEEN EXPOSED – HOW A MULTI-FACETED TOOLKIT CAN EXPEDITE POST-EXPOSURE FOLLOW-UP FOR VARICELLA ZOSTER VIRUS (VZV)

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Issue: Post-exposure follow-up for Varicella zoster virus (chickenpox or disseminated zoster) can be overwhelming for an infection control professional due to the potential for extensive patient exposure follow-up within a constrained timeframe. This includes determination of whether a high-risk exposure has occurred and identifying patients and staff meeting exposure criteria. Diligent communication to several key personnel must occur immediately, such as to exposed patients, impacted program(s), Occupational Health and most-responsible physicians. In addition, clear documentation of disclosure of exposed patients must be completed and any required post-exposure prophylaxis for patients and staff must be conducted.

Project: A working group was established that consisted of infection control professionals, an Infectious Diseases physician and Infection Control management. A needs assessment was conducted where existing data on previous VZV post-exposure processes was analyzed. Input from various infection control professionals from the department was gathered; and Best Practices from various national and international bodies were referenced. The assessment revealed the unified need for a post-exposure follow-up process to ensure a thorough, efficient, and standardized

internal departmental approach among infection control professionals.

Results: To create a standardized post-exposure VZV process, an intuitive and simplified multi-step toolkit was created. The resultant toolkit contains: 1. A comprehensive exposure checklist with task items for the ICP to complete; 2. Simplified exposure criteria, which assists the ICP in determining whether an exposure occurred and which patients/staff are involved; 3. A pre-built line-list; 4. Template communications to affected program, Occupational Health, and physicians; 5. Template patient letter pre-populated with e-signatures of appropriate individuals.

Lessons Learned: Having a streamlined toolkit improved patient and staff safety by ensuring that all exposed individuals are identified, notified and, if necessary, provided post-exposure prophylaxis in a timely manner. The toolkit also mitigated risk of miscommunication, or lack of communication, among stakeholders and exposed staff and patients. Finally, the toolkit expedited and simplified the otherwise labor-intensive process involved in a post-exposure follow-up for the infection control professional, thus reducing time and stress and ensuring that patient safety is prioritized.

SCRATCHING THE SURFACE: SCABIES OUTBREAK IN AN INTENSIVE CARE UNIT

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Issue: Sarcopites scabiei, an ectoparasite, causes skin infections. Diagnosis is challenging. Mites burrow under the skin, resulting in an initial appearance resembling mosquito bites or acne and clinicians may attribute presenting symptoms to other causes such as an allergic reaction. Over time, scales or blisters form and the patient experiences intense itching. A six-week incubation period for an initial infestation is common. A patient at a central Alberta hospital presented with skin lesions and was initially on additional precautions. Precautions were discontinued based on diagnosis of an allergic reaction. Dermatology diagnosed scabies 140 days later. The patient lacked the ability to communicate his needs and required high contact care in the Intensive Care Unit (ICU). The result was transmission to staff. A scabies outbreak was declared that lasted 2.5 months.

Project: An interdisciplinary committee, including the Medical Officer of Health, Infection Control Professionals (ICP), Occupational Health Nurse, Unit Manager, Director of Cardiac Sciences and Critical Care, and the Public Health Inspector, oversaw the scabies outbreak. The committee reviewed the status of the index case, additional cases, infection prevention strategies, and learned together. All interactions with patients or patient environments required contact precautions until all unit staff and patients received treatment or prophylaxis. Contact tracing of potentially exposed patients required identification of patients admitted to the ICU during a 140-day period prior to the index case diagnosis of scabies and the outbreak declaration. Patients were notified through communication to their physician. Due to interfacility-transfer of patients, communication occurred with nine other healthcare facilities within the province.

Results: Two patients were affected. The index case was the sole lab-diagnosed case; the second patient was self-diagnosed. Twenty-six staff, either self- or physician-diagnosed, were affected. Contact precautions were maintained until all potentially exposed staff and patients, including those transferred out of the ICU, received prophylaxis. Control measures of contact precautions; prophylaxis, one dose of permethrin; and treatment protocol, at least two doses of permethrin, resulted in no transmission to further patients or staff.

Lessons Learned: It is challenging to diagnose scabies. Nurses learned the importance of applying additional precautions consistently based on presenting symptoms. Following routine practice, including a point-of-care risk assessment, supports transmission prevention even with inconsistent application of additional precautions. Communication and collaboration with other areas in the facility were originally missed and a few individuals were not included in the initial outbreak committee. Outbreak management requires a concerted team effort.

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LACK OF HIV PRE-EXPOSURE PROPHYLAXIS (PREP) AWARENESS REPRESENTS A MAJOR KNOWLEDGE GAP AMONG GAY, BISEXUAL AND OTHER MEN WHO HAVE SEX WITH MEN IN ONTARIO

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Issue: While clinical and observational data have demonstrated HIV Pre-Exposure Prophylaxis (PrEP) reduces the risk of HIV transmission, most gay, bisexual and other men who have sex with men (gbMSM) may be unaware of this highly effective option for HIV prevention. According to 2016 national HIV estimates, over half (52%) of all new HIV infections in Ontario occur among gbMSM. Yet, limited research exists to assess PrEP awareness and uptake as a prevention tool among this population.

Project: To address this knowledge gap, we conducted a questionnaire from June 2018 to March 2019 among gbMSM living across Ontario.

Results: A total of 1560 HIV negative gbMSM completed the questionnaire. The mean age was 37.3 years (SD = 14.7). The majority (95%) reported sex with only or mostly men and the remainder were bisexual. With respect to PrEP use, only 10% reported they were currently taking PrEP. Toronto (21%) and Ottawa (13%) had the highest uptake of PrEP, whereas northern (4%) and eastern Ontario (3%) had the lowest. Over half of respondents that live in northern (59%) and southern (56%) Ontario had never heard of PrEP or knew very little about it. Not knowing what PrEP is or how to access it were significant barriers for younger gbMSM, with lack of awareness being as high as 60% in many regions of Ontario.

Lesson Learned: To advance a culture committed to infection prevention and control, future educational efforts should address how to increase PrEP awareness and access among this most at risk population.

TAMING THE BEAST: HOW WE GOT RESULTS FROM OUR FLU CAMPAIGN

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Issue: There is a difference between flu immunization compliance and flu immunization 'status known'. The first implies that all workers who got their vaccination have provided proof to Occupational Health Safety and Wellness (OHSW). The latter indicates all staff must identify their status (vaccinated, declined or medical exemption). It has been presumed that in the past campaign seasons, those receiving a flu shot in a community clinic have not accurately been included in the compliance statistics reported to Public Health. In order to gather this information, status known was incorporated into policy. Our 2017/18 stats indicated 64% of staff received the flu vaccine. With no onus to provide this information but hopeful on accountability, the data was felt to not actually reflect the true status. In the 2017/18 flu season, an outbreak was declared. In the moment, data as to who could remain on the unit as per the Ontario Hospital Association Communicable Disease Standards became an immense undertaking. That unit only had 33% compliance by the collected data. Presumably, 67% of the staff had to be redeployed.

Project: To improve compliance rates regarding influenza immunization 'status known'. Having precise information effectively supports efforts for being prepared for an outbreak. When accurate information is gathered, management of outbreaks becomes a much more fluid process. Mandatory influenza immunization status reporting became the focus and was supported by Senior Team. Strategies included policy and procedures to reflect processes, mass email communication, posters and presentations, OHSW and IPAC attendance at staff meetings and 'team huddles', and a mandatory educational module to be completed by all staff annually. Other strategies included mock outbreaks and messaging at fixed and mobile flu immunization clinics. The perceived largest attraction was offering full sized chocolate bars to every worker who received an influenza vaccine.

Results: A rate of 99.2% employee compliance 'status known' was reached in the 2018/2019 season. The final immunization compliance rate for 2018/2019 was 78.5% an increase from the previous years. As of December 24, the current 2019/2020 status known rate is 99% and the immunization compliance rate is currently 81.4%

Lesson Learned: Collaboration approach is key. The OHSW cannot do it on their own. Key stakeholders include IPAC, Decision Support Unit, Human Resources, Senior Team, Communications department and unit managers. By enforcing our existing staff influenza immunization policy – which requires staff inform the OHSW department of their vaccination 'status' – we have subsequently seen an increase in reported staff immunization rates.

CPE AND DRAINS THE ANSWER LIES WITHIN! A MADE IN-HOUSE DISCHARGE PROTOCOL FOR DRAINS EXPOSED TO CPE

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Issue: Drains in patient rooms have been implicated in transmission of carbapenemase-producing Enterobacteriaceae (CPE) throughout Ontario. Use of disinfection agents alone may be ineffective for complete eradication of biofilm containing CPE in drains. The Provincial Infectious Disease Advisory Committee (PIDAC) guidance document for Environmental Cleaning for Prevention of Infections in All Healthcare Settings recommends that facilities have policies/procedures for rooms occupied by patients with CPE. Existing sample protocols available in the PIDAC document yielded implementation concerns and were not compatible with our hospital policies, procedures and external standards/codes. In absence of published evidence-based strategies, our hospital struggled to find the best solutions to prevent and manage biofilm buildup in drains potentially contaminated with CPE. We describe the journey our hospital took to solve this dilemma. Halton Healthcare is a tri-hospital community organization with a combination of new Public Private Partnership (P3) hospital builds as well as older hospital owned facilities.

Project: Infection Prevention and Control (IPAC) set out to create an organization specific drain preventative maintenance program to be performed when patients with confirmed CPE are discharged. A multidisciplinary working group was created inclusive of various stakeholders including IPAC, facility maintenance, environmental services, clinical staff, and industry partners. Process improvement and brainstorming sessions were conducted including evaluation of new technologies, efficacy, time trials, safety, economic impact as well as ease of adoption of interventions.

Results: A specific drain preventative maintenance discharge protocol was created. The protocol is utilized for rooms occupied by CPE positive patients for greater than 48 hours. The process includes drain disinfectant using a viscous 2.4% Sodium Hypochlorite. The disinfectant is easy to source, financially feasible, user friendly and consistent with the same active ingredient used in cleaning/disinfecting room surfaces. The next step is tail pipe and p-trap replacement of patient and hand hygiene sink. Results of time trials indicated that replacing tail pipe and p-trap was quicker than physical biofilm removal by brushing, cleaning/disinfection. Hospital-specific algorithms, policies, procedures, job aids, staff training and communications were created to support the new process. After each CPE discharge protocol is complete, the team reviews opportunities with the goal of continuous improvement.

Lessons Learned: In the absence of widely tested evidence-based strategies for removal of CPE in drains, it is important for healthcare facilities to engage stakeholders, research alternative products and conduct trials to find the best organization specific solution. Collaboration between stakeholders has led to important relationship building.

IS MYCOBACTERIUM CHIMAERA TRANSMISSIBLE PERSON TO PERSON?

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Issue: Two cases of Mycobacterium chimaera were diagnosed in patients admitted consecutively to the same airborne infection isolation room (AIIR) in an acute care academic hospital in 2019. The first identified patient (Patient A) had disseminated M. chimaera found in a bone marrow biopsy, and the second patient (Patient B) had M. chimaera in the sputum. Patient A was admitted in the AIIR of concern for four days on airborne precautions and Patient B was admitted hours later to the same room, for six days also on airborne precautions. The medical team requested Infection Prevention and Control (IPAC) to conduct an investigation to determine if there was transmission of M. chimaera between these two patients. M. chimaera is a nontuberculous mycobacterium belonging to the Mycobacterium avium complex (MAC) and is an opportunistic pathogen commonly found in water. M. chimaera has been of concern recently due to aerosolized transmission from contaminated heater cooler devices used intraoperatively causing infections in post-operative cardiac patients.

Project: The IPAC team conducted an investigation to determine if there was transmission of M. chimaera from Patient A to Patient B. Chart reviews of both patients were completed and the specimens were sent to the National Microbiology Laboratory (NML) to determine relatedness. A literature search of M. chimaera was also performed to review if there were any reported cases of human to human transmission.

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Results: Patient A's symptom onset began approximately three months prior to admission, and the infection was presumed to be related to a contaminated heater cooler during cardiac surgery in another facility 18 months prior. Patient B's symptoms of fever, malaise, cough and foul-smelling sputum began 11 days prior to admission. Patient B received empiric treatment for community acquired pneumonia with clinical improvement. Besides sharing the same AIIR at different times, no other epidemiological links such as common procedures (e.g. bronchoscopy), respiratory equipment or medications were identified. Whole genome sequencing revealed that there was no genetic link between the two cases. Patient A's *M. chimaera* strain was closely related to the global heater cooler outbreak strain, and Patient B's *M. chimaera* strain was unrelated to the heater cooler strain. Our literature search did not reveal any definitive evidence of human to human transmission of *M. chimaera*.

Lesson Learned: Our investigation determined there was no evidence of human to human transmission of *M. chimaera* in our two patients, and there has been no definitive evidence of human to human transmission reported in the literature. *M. chimaera* in respiratory specimens can sporadically occur and is most likely attributed to the ubiquitous nature of *M. chimaera* in water. This is in contrast to invasive *M. chimaera* infections that have been introduced during cardiac surgery by heater cooler units contaminated with the global *M. chimaera* outbreak.

PAPER TO PHONE – MAKING HAND HYGIENE AUDITING EASY AND REDUCING THE HAWTHORNE EFFECT

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Issue: The Hawthorne effect (also referred to as the observer effect) is a type of reactivity in which individuals modify an aspect of their behavior in response to their awareness of being observed. We all are aware of the Hawthorne effect while auditing hand hygiene compliance rate. But still many believe that the 90% plus rates we publicly report are true rates. This is especially the case when we perform hand hygiene audit with a clip board, making it very obvious to the front-line staff. Infection Prevention and Control (IPAC) wanted to obtain closer to the true rate of hand hygiene compliance by reducing the Hawthorne effect.

Project: Based on the high hand hygiene compliance rates, IPAC was suspicious that the rates may not be accurate. In addition, the accountability of doing the audits was on the IPAC team as very few front-line staff volunteered to become auditors. IPAC goal was to: (a) get a true picture of actual hand hygiene compliance rate and (b) increase the involvement of the front-line staff to become hand hygiene champions and volunteer to audit their peers. Like most of the hospitals in Ontario, due to limited funds we could not purchase/subscribe an electronic system. However, by utilizing Public-Private Partnership initiative, IPAC was able to implement an online web portal that allowed us to view, aggregate audit data and create reports filtered by date, auditor, location and profession. The auditors could collect hand hygiene audits either on their cell phones, tablets or computer making it less obvious.

Results: Information gathered from the web portal clearly showed a significant drop in the compliance rate by ~25% initially supporting the Hawthorne effect theory. In addition, because the audit tool was on the cell phone instead of carrying a paper form, we had an increase of front-line staff participating as hand hygiene auditors as they found the app user-friendly and exciting to use. Participation of front-line staff to volunteer as hand hygiene auditors increased by 40% as we implemented the new system. As our hand hygiene auditors increased, so did our hand hygiene compliance rate, as the auditors became more observant and compliant in doing appropriate hand hygiene. In addition, with the technology we have invested in, we are also able to audit appropriate usage of personal protective equipment (PPE).

Lessons Learned: Like other hospitals that used paper-based hand hygiene auditing system, the rates we initially reported were higher than the actual rates due to the Hawthorne effect. In addition, we all are aware that hand hygiene does not motivate our front-line staff as it may feel like a broken record that has been playing for over 12 years. The key to keeping the front-line staff interested and invested in hand hygiene is to come up with innovative ideas when it comes to the process of auditing, in order to stimulate and avoid burn out.

A QUANTITATIVE EXAMINATION OF CANADIAN INFECTION CONTROL PROFESSIONALS' SUBJECT MATTER EXPERTISE, EXPERIENCE AND USE OF AVAILABLE RESOURCES IN THEIR ROLE OF ADVISING ON CONSTRUCTION, RENOVATION AND MAINTENANCE IN ACUTE CARE CANADIAN HOSPITALS

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Background/Objectives: Construction activities, on-going in Canadian hospitals create a risk of invasive fungal infections and infections due to *Legionella* spp. Infection control expertise is required to educate contractors, conduct risk assessments and audits and provide recommendations. Infection Prevention and Control Canada (IPAC) provides eight construction related competency statements for Infection Control Professionals (ICP's). A quantitative research project was conducted to determine whether acute care ICP's in Canada, providing advice on construction, have the necessary education, experience and knowledge of resources. Secondary objectives addressed geographical differences, level of confidence, knowledge of specific construction topics and gaps in education and resources. Methods: A quantitative research method was conducted, using an electronic multiple-choice questionnaire. APIC (Association for Professionals in Infection Control and Epidemiology) and IPAC Canada's competency tools were used to develop the questionnaire and survey content validated. The survey, conducted from August 7 to August 21, 2018 was sent to 833 members of IPAC Canada. Consent was voluntary and the data was collected to ensure anonymity. The raw data generated was collated and analysed.

Results: The majority of respondents (86%) were from teaching hospitals with greater than 100 beds, resulting in a 10.3% response rate. Approximately 80% had taken CSA's construction fundamentals course, 50% had taken CSA's Implementation course and 13% had taken the CSA Z8000 course. There were 11% without formal coursework. The majority of respondents rated their knowledge of the CSA construction standard high and their knowledge of CSA plumbing and HVAC standards low. Approximately 30% had at least 10 years of experience and almost half had been involved in major demolition including phased moves. Some facilities (14%) had hired an external IPAC resource for construction in the previous five years. Approximately 40% felt very confident or confident and 25% felt not confident, conducting infection control risk assessments (ICRA's). Those not confident had significantly less experience dealing with air handling, hoarding, plumbing or building structural issues. There was no significant difference in ICP's experience and knowledge across different regions in Canada.

Conclusion: The small sample size was a limitation. The majority of respondents had the knowledge and experience to provide expert IPAC advice. Knowledge of plumbing, air handling, structural and electrical were identified as gaps affecting the level of confidence doing ICRA's. These results may be helpful in informing future learning opportunities for ICP's.

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FROM DEATH BY POWERPOINT TO INTENTION TO CHANGE – ENGAGING INFECTION CONTROL CHANGE AGENTS IN HEALTHCARE SETTINGS TO MEET BEST PRACTICES: IMPLEMENTING PUBLIC HEALTH ONTARIO'S IPAC EDUCATION STRATEGY

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Public Health Ontario's (PHO) Infection Prevention and Control (IPAC) Regional Support Teams have traditionally undertaken activities in support of the dissemination of IPAC Best Practices. In many cases, education delivery has been confined to simple dissemination of knowledge, which has been self-limiting in its impact on subsequent change and improvement to processes and outcomes. Learning from the fields of knowledge translation and implementation science, as well as adult learning theory has informed PHO IPAC to develop an Education Strategy ("the Strategy"). Application of the Strategy has allowed our Team of IPAC Specialists to provide our IPAC Professional (ICP) stakeholders with interactive opportunities to engage with best practice content, each other and ourselves, providing them with an opportunity to move beyond simply receiving dissemination messaging and toward the role of change agent and implementer.

Project: This presentation will describe the experience and utility of using the Strategy, the potential to utilize the strategy in planning, delivering and evaluating interventions targeting building capacity for change agency among Infection Prevention and Control Professionals and other leaders, as well as data from evaluation indicating stakeholder's intention to change related to session delivery. Our team of Infection Prevention and Control (IPAC) Specialists utilized a novel education strategy to assess stakeholder need and design an effective engagement approach, which resulted in stakeholders expressing in writing their intention to undertake practice change to adopt evidence-based best practices. The approach developed afforded the participants a voice in selecting the subject to be addressed, an opportunity to consider and document their concerns on the subject, engage in problem solving discussion with peers, and document their intention to move to action upon return to the healthcare setting. Utilizing evaluative thinking as outlined in the Strategy, our team initially conducted a needs assessment which served to identify broad areas of desired learning among our stakeholders. Engagement sessions were planned based on the gaps identified in the needs assessment rather than focusing on delivery of content. On the day of the event, participants chose the focus of the session from among several related concepts. Participants were asked to 'vote' on the sub-topics of interest using the "dot-mocracy" method. A worksheet was provided for participants to write down a related issue in their setting. Groups discussed the topic of interest, identified gaps and solutions to implement best practices.

Results: Participants evaluated the subject matter to be applicable, mode of delivery as effective, and the opportunity to conduct additional discussion with peers as likely to be useful to them. 88% of completed evaluations (n=26) indicated that participants planned to make change to their IPAC practices or those that they plan to target for change.

Lessons Learned: The principles within the Education Strategy guided this approach making sessions more relevant to participant's learning needs. The worksheet helped them develop a plan for change within their individual setting. Implementing the Education Strategy afforded our team the opportunity to plan sessions to assist stakeholders in adopting best practices.

By documenting the process, we were able to ensure alignment with the goals of PHO's IPAC Education Strategy in the areas of evaluative thinking, needs assessment, and defining the approach and roles in innovative educational modalities that promote active learning opportunities for stakeholders. Implementing the PHO IPAC Education Strategy as a framework for planning and carrying out the session allowed our team the opportunity to thoughtfully plan and carry out the sessions, with the end goal of designing sessions that will assist stakeholders in adopting IPAC best practices. Since holding the initial series of four in-person sessions, our Team has been evolving the approach and applying it to sessions delivered using distance delivery modalities. While we have completed evaluation of the in-person sessions, we continue to provide sessions to various stakeholder groups at the time of submission of this abstract. Formative evaluation of sessions delivered by way of this modality is in process. We will plan to update the "results" section of our presentation with additional data as it becomes available.

ORANGE YOU GLAD YOU PREPARED!

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¹Sunnybrook Health Sciences Centre

Issue: Sunnybrook Health Sciences Centre (SHSC) is a 1,355-bed quaternary care centre, in Toronto Ontario. A Code Orange at SHSC represents a response to: mass casualty incidents; chemical, biological, radio-nuclear, explosive or environmental (CBNRE) events due to natural, accidental or intentional acts; and pandemics. Maintaining preparedness for high consequence pathogens (HCP) and mass casualty incidents are priorities. Over the past three years, SHSC has had several Code Orange events: six major exercises, multiple small-scale exercises and three real events. Each event presented IPAC an opportunity to enhance preparedness, response and recovery activities.

Project: Under the leadership of the SHSC Emergency Preparedness team, multiple stakeholders throughout the organization were identified to participate in the preparation, execution and debrief of each code orange exercise. After action reports collated the findings and identified key opportunities for improvement. Three major exercises and their outcomes will be described: A mass casualty related to an intentional act and two incidences related to HCP.

Results: All three exercises were successfully executed with internal and external stakeholder engagement. Two were table-top exercises and one a live exercise. Several opportunities to enhance infection prevention and control were identified with each event: optimize environmental support services, evaluation of surge spaces, opportunities to cohort or discontinue additional precautions, prioritize placement of IPAC coordinators, suspension of non-priority program areas, support patient flow, improve notification and fan-out process, identify and mitigate risks to patient safety, improve contact tracing capabilities, expedite identification and placement of patients presenting with a HCP. As a result of these exercises, several processes were identified for improvement and an IPAC-specific fan out list and all hazards business continuity plan was developed.

Lessons Learned: Emergency exercises can be large scale and complex in nature involving many stakeholders but may also be small and targeted in order to test a specific process. IPAC matters in all emergency responses and during a code orange event. Participating or supporting development of exercises and plans should be a priority for an IPAC team. Learnings applied from code orange exercises or events are transferable to regular business operations such as surge planning which supports occupancy pressures.

WHAT'S OLD IS NEW AGAIN – RE-LAUNCH OF A VRE CONTROL PROGRAM IN A REHAB/COMPLEX CARE HOSPITAL

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¹Sinai Health System, ²Sinai Health

Issue: Beginning in 2012, some healthcare facilities in Ontario discontinued their VRE control programs. In the absence of strong data supporting its effectiveness, some could not justify the additional laboratory costs of screening, as well as costs associated use of Contact Precautions including personal protective equipment, cleaning and loss of private room income. In 2013, prior to merging our acute care and rehab/complex care (CC) hospitals, our rehab/CC hospital decided to stop their VRE control program. In 2019, Public Health Ontario issued guidance supporting use of active VRE screening programs and use of Contact Precaution for those colonized and/or infected with VRE, given emerging data demonstrating effectiveness of VRE control programs. Herein, we describe re-implementation of a VRE control program.

Project: Six years had elapsed since the discontinuation of the VRE control program. Senior leadership support was extremely important to begin the process of re-launching the program. We then mapped the entire process for roll-out in order to maintain momentum and be able to track the completion status of each task. One of the most important early questions was to determine the baseline VRE prevalence for our hospital. A decision to screen only the long-stay patients was determined as a good indicator of VRE prevalence. A communication plan was created to ensure all staff and affected patients were aware of the change. This included speaking to those positive patients that remained in the hospital for the launch and providing a fact sheet for them. Nursing leadership was involved in ensuring nursing practices were updated. Changes in the hospital electronic medical record (EMR) were needed. A plan to audit admission swabs collection would be able to identify areas for improvement and additional education.

Results: Six inpatient units were screened and a 4% positive rate (n=7/171) was identified. Hospital-wide policies were updated to reflect the VRE control program; all admitted patients were to be screened for VRE, as the vast majority

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was transferred from another healthcare facility. Nursing Medical Directives were updated to include VRE admission swabs. A Practice Alert, fact sheet and email communication were created to further inform clinicians of the change. We attended huddles and morning report as part of the education roll-out. Changes in the EMR had to happen in order to account for the addition of VRE admission screening, changing the collection site from perineum to rectal, and updating IPAC documentation to include VRE. Upon initial roll-out, there was a plan to audit all new admissions for swab compliance. Competing hospital projects and department moratoriums led to a launch delay of four months.

Lesson Learned: Early stakeholder involvement and mapping of the processes required are two key steps to ensure a smooth launch. Consideration for unforeseen delays and department resources should be built-in the plan.

EBOLA PREPAREDNESS: COLLABORATIVE APPROACH IN CREATING A STATE OF READINESS

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¹Humber River Hospital

Issue: The Ebola outbreak in Democratic Republic of Congo began in August 2018. To date, there has been over 3,000 confirmed cases and over 2,000 deaths. This outbreak is the second largest in history, second only to the West Africa outbreak of 2014 that caused over 11,000 deaths. Global travel has heightened the threat of spreading communicable diseases from one region to another. Located 10 minutes from Pearson International Airport, Humber River Hospital will likely be the first to receive patients with potential exposure to Ebola Virus Disease upon their arrival in the city.

Project: Multidisciplinary working group collaborated to implement a state of readiness; this included the use of PDSA cycles to ensure the frontline staff training was well received, list and type of supplies and personal protective equipment (PPE), and alignment/implementation of policy and procedures based on best available evidence.

Results: Registered Respiratory Therapists trained in the use of the PPE utilizing Powered Air-Purifying Respirator (PAPR) trained emergency staff and physicians. Fully equipped “ready to use” Ebola carts containing all the personal protective equipment required, PAPR devices and charge stations, as well as visual guides on donning and doffing procedures have been stored in the Emergency Department and other critical outpatient locations throughout the hospital. All training, equipment and educational materials are supported by policies and procedures, which in turn are aligned to CDC and WHO recommendations on Ebola containment and response strategies.

Lessons Learned: By 2015 alone, six other countries had reported an imported Ebola case or cases (Mali, Senegal, Nigeria, Spain, the United States of America, and the United Kingdom). These have now been controlled. All of these examples confirm that a rapid and strong response to an Ebola outbreak is not only essential, but possible, and is the most important factor in controlling the disease and consequently stopping its spread. As the number continues to grow, maintaining a state of readiness has proven to be a dynamic process that requires continuous monitoring, coordination, and improvement.

CANDIDA AURIS: PROSPECTIVE IDENTIFICATION AND MANAGEMENT: JOURNEY TO DATE

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¹Humber River Hospital

Issue: Candida auris (*C. auris*) is an emerging fungus that presents a serious global health threat. *C. auris* is highly communicable and causes severe illness in hospitalized patients. Patients can remain colonized with *C. auris* for a long time and *C. auris* persists on surfaces in healthcare environments. In April 2019, Humber River Hospital, a large community hospital in Toronto Canada, identified the first prospective case of *C. auris* in Ontario.

Project: Humber River Hospital implemented a screening protocol for high risk patients based on PIDAC's Interim Guide for Infection Prevention and Control of Candida auris issued in January 2019. Screening criteria include patients coming from areas where *C. auris* is endemic or where transmission has been documented, travel history to the Indian subcontinent, known colonization or infection with CPE, and history of intrusive antifungal use. The first patient to be identified in Ontario was screened for *C. auris* on admission based on the aforementioned criteria. *C. auris* is known to be a resilient organism that can survive for prolonged

periods of time in surfaces and can resist routine cleaning with common hospital-grade disinfectants. In consequence, the patient was placed in a private room on enhanced droplet and contact precautions, with controlled traffic into the room using an ante-room, and dedicated equipment. Disinfection protocol includes twice a day environmental cleaning and disinfection with bleach-based disinfectant, as well as double-cleaning, ultraviolet light irradiation and quarantine for all medical equipment that needs to be removed from the room. Transmission was monitored through screening all ward mates upon discharge from the unit at days zero, seven and 21, with all patients remaining on contact precautions until results were confirmed negative. Education to staff was delivered through rapid PDSA cycles to support validation and promotion of learning; practices were promptly documented in policies/procedures for screening, testing and identification of patients at risk and/or colonized with *C. auris*; microbiology methodology for accurate identification of the organism was conducted; and patient and family information resources were developed.

Results: HRH realized zero hospital acquired transition over the nine-month admission, with over 600 ward mates screened to date. Rapid “theory burst” in-services were well received by staff; engaging patients and families in the design of information resources and protocols created investment.

Lessons Learned: 1. Multidisciplinary approach is necessary to prevent and control transmission of *Candida auris* within the healthcare setting; 2. Resources that align with best practices; 3. Communication with senior management is essential.

REDUCTION OF NEEDLE STICK INJURIES AMONG HEALTHCARE WORKERS AT KOIDU GOVERNMENT HOSPITAL: AUGUST TO OCTOBER 2019

Abu Gbondo¹
¹Ministry of Health and Sanitation

Background/Objectives: Needle stick and sharps injury (NSI) is an accidental penetration of the skin by a needlepoint or other piercing instrument. Healthcare workers (HCWs) are frequently exposed to sharps injuries, with the risk of serious illness. In the USA, hospital-based healthcare personnel sustain approximately 385,000 needle stick and other sharps-related injuries each year (CDC, 2008). In Sierra Leone, neither the prevalence nor the factors associated with HCW-acquired NSI is known. Koidu Government Hospital (KGH), a secondary/referral hospital, located in Koidu City, Kono District, provides medical services to adults and children, with 160 beds and 200 staff. In our setting, sharps injuries are often not taken seriously due to lack of HCW understanding of the magnitude of the risk of NSIs or the practices associated with it, and so many go unreported. A preliminary study showed that 66% of HCWs in KGH have experienced NSIs (FETP frontline SL, 2019). Our objective was to reduce NSIs to zero in three wards in KGH from August to October, 2019. Methods Our quality improvement initiative on three wards in KGH from August to October, 2019 included collection of baseline and bi-weekly data on any NSIs using a structured questionnaire, and design and implementation of an intervention package comprising of training, distribution of materials for reminder such as posters, and workflow re-organization. We measured effectiveness of the intervention based on numbers of NSIs, using quality improvement plan-do-study-act (PDSA) cycles.

Results: Twelve NSIs were reported in the three wards in the previous quarter, which provided our baseline. The major reasons identified by HCWs who reported these were lack of knowledge (78%), unorganized workplace (47%), and limited space in the ward area (44%). Following our intervention, NSIs was reduced by 83% to two.

Conclusion: The prevalence of NSIs in our three study wards was high, but through training, workplace reminders, and reorganizing of the workspace, it was reduced dramatically within three months. Consequently, we are initiating the intervention of HCW training, materials and workplace reminders, and workflow re-organization in the remaining wards. We also continue to track and report all NSIs and reinforce the intervention on the initial three wards to ensure sustainability.

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TARGETING INFECTION PREVENTION AND CONTROL GAPS IDENTIFIED DURING LASSA FEVER OUTBREAK INVESTIGATION

Abu Gbondo¹

¹Ministry of Health and Sanitation

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FLEXIBLE ENDOSCOPE REPROCESSING UPDATES

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Issue: Multiple types of flexible endoscopes have been linked to outbreaks and infections despite following manufacturers' instructions for use (MIFU). It has been reported that 58% of reprocessed endoscopes contain microbes. Bacteria such as carbapenemase-producing Enterobacteriaceae (CPE) which have been linked to outbreaks are difficult to treat. The persistent infection transmission risk is alarming. Over time the initial function of observational device for endoscope has long been changed. Videoscopes with built-in cameras are being utilized in minimally invasive surgical procedures in which endoscopes or accessories contact sterile tissue. Despite considerable advancements in endoscope technology, endoscope reprocessing has not received significant amendments. The complexity of scopes, the increase in critical usage, risk of being easily damaged, heavy soiling and potential for contamination with multidrug-resistant organisms are among a multitude of factors which contribute to increased infection risks for patients. Project: To analyze the current literature and global guidelines on endoscope reprocessing methodologies, new technologies available and propose a comprehensive procedure for endoscope reprocessing.

Results: Consistent adherence to clearly defined cleaning and reprocessing steps is critical for effective endoscope reprocessing. Manual cleaning is an important step which is prone to human error. Visual inspection cannot verify the efficiency of manual cleaning due to endoscope design. It is also essential to have quality controls in place to detect endoscope damage in real time. Potential ways to improve endoscope reprocessing could include, but are not limited to, enhanced thoroughness of manual cleaning, specific instructions for elevator mechanisms and biopsy channels, use of a magnifying lens or borescope, period microbial testing and culturing, double cleaning and reprocessing, and utilizing disposable parts, etc.

Lesson Learned: A comprehensive endoscope reprocessing plan that is based on the best practices identified in this project needs to be developed. It is essential to focus on all cleaning and reprocessing steps as well as implementing methods to verify manual cleaning efficacy. In particular, the use of an audit tool for performing quick tests for the measurement of adenosine triphosphate (ATP), protein and

carbohydrate have been recommended in current guidelines. Where possible, consideration should be given to moving from high-level disinfection (HLD) to sterilization. Utilizing innovations in endoscope design, increased training and competency and following the latest guidelines from professional organizations such as CSA, PIDAC, PHAC, SGNA, AAMI, FDA, CDC, ASM will result in properly reprocessed endoscope equipment and the highest level of patient safety.

INFECTION PREVENTION AND CONTROL LESSONS LEARNED IN THE OPERATION AND MANAGEMENT OF WARD BEDPAN WASHER DISINFECTORS IN THE INTENSIVE CARE UNIT FROM AN OUTBREAK OF CARBAPENEMASE-PRODUCING PSEUDOMONAS

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Infection Prevention and Control Lessons Learned in the Operation and Management of Ward Bedpan Washer Disinfectors in the Intensive Care Unit from an Outbreak of Carbapenemase-Producing *Pseudomonas aeruginosa*

Issue: Operation of ward bedpan washer disinfectors (BWD) using mainly the rim flush cycle instead of the disinfection cycle can lead to development of contamination with strains of antimicrobial resistant bacteria such as carbapenemase-producing *Pseudomonas aeruginosa*. This can be associated with hospital acquired infections (HAI) that pose great risk to patient safety as there can be limited treatment options available. In 2017, over a 12-week period, carbapenemase-producing *Pseudomonas aeruginosa* isolates with the same susceptibility profiles were identified in the urine specimens of three patients in a Winnipeg hospital intensive care unit (ICU). The patients were located in close proximity to each other and shared one of the BWD's on the unit. BWD drain sampling revealed two of four ward machines were positive for the outbreak *P. aeruginosa* isolate. A third BWD became positive for the outbreak *P. aeruginosa* isolate after its drain overflowed two months later. The fourth BWD had a carbapenemase-producing *P. mendocina* isolate. BWD machine drain testing was extended to other ICUs at the hospital which identified an additional distinct carbapenemase-producing *P. aeruginosa* isolate.

Project: Immediate measures were introduced to control the outbreak and prevent further transmission to patients: 1. Bedpans were returned to medical device reprocessing (MDR) after a single use; 2. High-touch areas of the BWD's were disinfected with each use; 3. A disinfecting cycle using alkaline soap and rinse agent was run every eight hours; 3. The exterior surface of the BWD's were disinfected once daily; 4. A multidisciplinary team developed a standardized approach for operation and maintenance of the BWDs based on manufacturer's recommended Instructions for Use and Infection Prevention Control recommendations.

Results: The outbreak was terminated with no further cases. Two documents were drafted: 1. A Standard Operating Procedure (SOP) for operation and maintenance of the BWDs; 2. An SOP for management of drain overflows.

Lessons Learned: Use of ward BWD requires quality control monitoring. The manufacturer's instructions for maintenance and operation of the BWDs and infection prevention control principles should always be strictly followed to avoid creating a source of HAI from resistant bacteria such as carbapenemase-producing *P. aeruginosa*. Once present, it may not be possible to permanently eliminate carbapenemase-producing *P. aeruginosa* from the drain of a BWD. Drain overflows may lead to contamination of the BWD drain with carbapenemase-producing *P. aeruginosa*.

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COLLABORATING FOR CANADIAN BEST PRACTICES FOR INTERMITTENT CATHETERIZATION: IPAC CONSIDERATIONS

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Issue: Urinary tract infections (UTIs) are the second most common infection, after respiratory infections, with significant impact on healthcare costs, antimicrobial stewardship, and quality of life for sufferers. Indwelling urinary catheters are a major cause of healthcare-associated UTIs. Intermittent catheterization greatly reduces the risk of infection and is widely used for patients with voiding difficulties from a range of medical problems. There are no current Canadian guidelines for intermittent catheterization.

Project: Through the Canadian Network of Nursing Specialties, four associations connected and collaborated to systematically review current literature and create Canadian best practice recommendations for intermittent catheterization, building on the work of the European Association of Urology Nurses 2013 guidelines, and contextualizing current controversies.

Results: Best Practice Recommendations for Intermittent Catheterization are the result of a collaboration between Nurses Specialized in Wound, Ostomy & Continence Canada (NSWOCC), Canadian Nurse Continence Advisors (CNCA), Urology Nurses of Canada (UNC), and Infection Prevention and Control Canada (IPAC Canada). The review panel consisted of specialist nurses' representatives from each of the four collaborating groups.

Lessons Learned: This process has reinforced the value of working together, bringing our individual expertise and the knowledge base of our particular nursing specialties to make recommendations for the evolving Canadian landscape. The document will assist nurses in diverse practice settings to provide evidence-based care to adults requiring intermittent urethral catheterization. IPAC is an essential element of best practices, to reduce risk and enhance success and wellbeing.

ASSESSING THE SUSTAINABILITY OF AN INITIATIVE TO PROMOTE THE USE OF ROUTINE PRACTICES IN AMBULATORY CANCER CARE AREAS AND AMBULATORY CARE AREAS AT ACUTE CARE FACILITIES IN THE PROVINCE OF ALBERTA

Heather Gagnon¹, Gwyneth Meyers¹, Maureen Buchanan-Chell¹, Jennifer Happe¹, Melody Cordoviz¹, Melissa Beck¹, Linda Kamhuka¹, Ericka Oates¹

¹Alberta Health Services

Issue: A horizontal approach that includes a focus on routine practices is fundamental to an Infection Prevention and Control (IPAC) program, and is of increasing importance with global travel and the emergence of various antibiotic-resistant organisms and infectious diseases. In 2016 and 2017, the Alberta Health Services IPAC program implemented two initiatives to promote the application of routine practices in place of contact precautions to manage patients with an antibiotic-resistant organism in ambulatory cancer care areas and ambulatory care areas located at acute care facilities in the province of Alberta.

Project: In 2019, a working group of infection control professionals (ICP) was assembled to design, plan, and implement an evaluation on the sustainability of these initiatives. An interview tool with nine open-ended questions was developed and piloted. ICP performed in-person structured interviews with a minimum of one frontline staff member from a sample of areas involved in the initiatives. Responses from the interviews were coded using a data dictionary, entered into an Excel® 2013 database, and analyzed using descriptive statistics. A focus group interview with ICP was conducted to understand the successes and challenges of the initiatives. Responses were analyzed by two independent reviewers using thematic analysis.

Results: Interviews were performed in 20% (67/313) of areas and included 115 frontline staff. Overall, the use of routine practices was sustained in 42% (28/67) of the areas sampled. In ambulatory cancer care, routine practices were sustained in 67% (8/12) of areas. In ambulatory care, routine practices were sustained in 36% (20/55) of areas. Key themes that emerged from the focus group included: differences in the approach and focus of the initiatives; engagement at various levels that impacted the ability of the ICP to encourage participation in and to implement designed interventions; importance of champions and educators in areas to act as supports for both frontline staff and ICP; consideration for the types of resources developed; and importance of project management to provide clarity on and structure to the initiatives.

Lessons Learned: Sustainability differed between the two initiatives. Explanations for the differences and the degree of sustainability between initiatives were linked to variable levels of engagement with the programs and areas, the complexity of the initiatives in scale and scope, and insufficient supports given this complexity.

Lessons learned to apply to any prospective initiatives include: identifying and integrating clear goals and measurable outcomes; engaging leadership at the provincial and local level throughout the initiative; including change management and project management expertise; enhancing support for frontline staff and ICP; considering involvement of patients; and ensuring robust monitoring to support evaluation are in place before proceeding with implementation.

INVESTIGATION OF A CLUSTER OF EARLY-ONSET NEONATAL GBS BACTEREMIA

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Background: Vertical transmission of Group B Streptococcus (GBS) during delivery from colonized mothers to their neonates is a significant concern. Guidelines outline recommendations for prevention of neonatal disease including antenatal screening and administration of intrapartum prophylactic antibiotics. A cluster of four early-onset neonatal GBS bacteremia at a single high-volume birthing centre in August 2019 in Toronto, Ontario led to an investigation to assess for a nosocomial source as well as efforts to reduce GBS sepsis in neonates.

Methods: Over a five-day period in August 2019, all new admissions to the NYGH labour and delivery unit (L&D) were screened for GBS via culture from vaginal/rectal swabs on admission, and screened again within 0-3 hours post-delivery. Concurrently, a retrospective audit of electronic medical health records was conducted for the identified cases, and for all admissions to L&D over a two-week period in July 2019, with a focus on type of delivery, antenatal GBS status (35-37w), administration of intrapartum prophylaxis, and GBS risk factors.

Results: The four neonates with GBS bacteremia were all born full- to late-term (39-41w+6), average ROM to delivery was 12.75hrs (range 3-17hrs). Maternal antenatal (35-37w) GBS status of infected cases were as follows; two negative, one positive, one unknown. Intrapartum GBS prophylaxis was not administered in any of the four cases; chart review indicated one met criteria as per guidelines. Neonates all tested positive in blood culture shortly after birth (mean time = 4.26hrs, range = 0.35-10.65hrs). Three neonates were asymptomatic, while one developed respiratory distress within hours of birth. During the enhanced screening period, 55 patients were screened for GBS. Their antenatal GBS screening at 35-37 weeks was as follows: 46 GBS-negative, seven GBS-positive, two unknowns. On admission, five screened positive, of which two were negative on their antenatal screens. On post-delivery screening, three patients were GBS positive, two of which were negative on admission to L&D. Charts were reviewed for 228 patients admitted to L&D over a two-week period, with 58 caesarean births and 170 vaginal deliveries. Of the vaginal deliveries, 43 patients (25.3%) had a GBS positive antenatal screen, and six (3.5%) were unknown. Eight patients (19.1%) with GBS positive status had no documentation of intrapartum prophylaxis administered. **Conclusion:** Adherence to the best practices guidelines for intrapartum prophylaxis was suboptimal with 19% of known positives not receiving prophylaxis. Improvement efforts are underway in this realm. We note that a number of GBS colonized mothers were underserved by this approach (approximately 4% were negative at 35-37 weeks, but positive on admission, and an additional 4% converted from negative to positive in the brief number of hours from presentation to L&D until delivery). This indicates that screening at 35-37 weeks has limitations.

SUPPLEMENT TO THE CANADIAN JOURNAL OF INFECTION CONTROL

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NATIONAL ADVISORY COMMITTEE ON INFECTION PREVENTION AND CONTROL (NAC-IPC): PROVIDING EXPERT ADVICE ON AN EMERGING RESPIRATORY INFECTION IN CANADA

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Issue: On December 31, 2019, a cluster of pneumonia cases of unknown origin was reported from Wuhan, Hubei Province in China. Ruled out were a number of respiratory pathogens, including human and avian influenza viruses and SARS and MERS coronavirus. Shortly afterward, what is referred to as 2019 Novel Coronavirus (2019-nCoV) was identified as the cause of the outbreak. Spreading to multiple locations within China, laboratory-confirmed cases appeared in other countries, including Canada. Human-to-human transmission, including to healthcare workers (HCWs), was documented. In the absence of effective drugs or vaccines, it was crucial that infection prevention and control (IPC) guidance to prevent and limit transmission of 2019-nCoV in Canadian healthcare facilities be developed urgently.

Project: The Public Health Agency of Canada (PHAC) develops IPC guidelines to provide evidence-based recommendations that complement provincial/territorial efforts in monitoring, preventing, and controlling healthcare-associated infections (HAIs). The National Advisory Committee on Infection Prevention and Control (NAC-IPC) has provided the Government of Canada with expert IPC advice on HAIs, including emerging pathogens, for over 25 years. An external advisory body, it feeds into the federal-provincial-territorial (FPT) response structure for biological events. Comprising members with various expertise, including infectious disease, medical microbiology and IPC, it supports development, dissemination, evaluation, and implementation of IPC guidelines. PHAC-produced guidelines are usually developed by conducting rigorous and comprehensive systematic reviews, with evidence grading where applicable; this process can be lengthy. The rapid spread of 2019-nCoV necessitated a timely response; thus, a targeted environmental scan of published material from reputable sources was conducted. The NAC-IPC was consulted for their technical IPC expertise.

Results: Interim IPC recommendations for the emerging respiratory infection were developed, resulting in the release of the Infection Prevention and Control for Novel Coronavirus (2019-nCoV): Interim Guidance for Acute Healthcare Settings amid an evolving situation. Subject to change as new information emerged, recommendations were informed by expert interpretation of available scientific evidence and collective expert opinion where evidence was as yet unknown/inconclusive. The interim guideline was circulated via various channels for accessibility by HCWs.

Lesson Learned: By supporting PHAC with development of national evidence-based guidelines, the NAC-IPC plays a critical federal role in managing HAIs and emerging pathogens. Its work informs FPT public health networks, facilitating a pan-Canadian approach to responding to public health emergencies and maintaining safe healthcare delivery.

THE POWER OF A TWEET: HOW AN INFECTION PREVENTION AND CONTROL (IPAC) DEPARTMENT'S SOCIAL MEDIA ACCOUNT ENGAGES AND INCREASES AWARENESS

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Issue: Social media is an ever-expanding tool of knowledge sharing and information transfer. Infection prevention and control (IPAC) is a field which is strengthened by knowledge exchange and promotion of best practices. The use of social media to promote the field of IPAC and provide education by a Canadian hospital has been seldom attempted yet has enormous potential.

Project: In early 2019, the IPAC department started a twitter account with the intention of bringing awareness to IPAC measures and situations occurring in the hospital, as well as to increase engagement in the broader health community. Two IPAC professionals managed the twitter account and updated it with timely information about relevant IPAC topics. A dissemination strategy included highlighting events, a focus on key IPAC messages, as well as a daily schedule of themes for different days of the week such as meet your IPAC team Mondays, twinning Tuesdays and throwback Thursdays. There was also engagement of external professionals in the field in order to spark discussion and build awareness of the IPAC department.

Results: Over the course of one year, the account has grown its following and has over 320 followers including Canadian IPAC professionals, and international followers. From a Canadian perspective, the account has the largest following for an IPAC department. The account has a follower reach from numerous countries

including United States, Saudi Arabia, United Kingdom, Russia, Spain, and India. On the date of confirmation of the first case of the 2019 Novel Coronavirus in Canada, a tweet using emojis to illustrate the proper donning and doffing sequence generated immense engagement with over 27,000 views, 140 'retweets', 210 'likes', and spawned 140 profile visits. This tweet brought educational value and a timely refresher in light of the novel coronavirus as evidenced by feedback received from as far away as New Zealand. Furthermore, the account provided consistent and timely messaging throughout the early stages of the novel coronavirus outbreak and was used as a tool to disseminate accurate updates to hospital staff.

Lesson Learned: The outcome of this social media experiment is a platform for engagement and knowledge exchange in the field of infectious diseases, infection control, and nursing. The use of timely and simple messaging enabled an increase in awareness of various IPAC topics. Communicating on a social media platform should be practiced cautiously and with particular focus on accurate evidence-based information is crucial in keeping an account reliable, technically sound, and trustworthy. Social media platforms, such as Twitter, are increasingly becoming popular sources of new information and practice sharing in the field of IPAC topics can be effectively promoted to a broader audience.

BRINGING ANTIMICROBIAL STEWARDSHIP TECHNOLOGY TO A SMALL NORTHWESTERN ONTARIO HOSPITAL

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Project: The Antimicrobial Stewardship committee put forth a recommendation to purchase an already established app that could be tailored to our hospital. It took approximately a year communicating with the company to the implementation date.

Issue: Getting medical staff to utilize antibiogram data/antimicrobial guidelines and improve antimicrobial prescribing practice.

Project: The Antimicrobial Stewardship committee put forth a recommendation to purchase an already established app that could be tailored to our hospital. It took approximately a year communicating with the company to the implementation date. The time-consuming processes were:

- Financial approval from the hospital
- Establishing guidelines
- Entering the guidelines/antimicrobials and pathogenic information
- Familiarizing ourselves with the app

Results:

Our 69-bed hospital has 68 users. They are divided (highest to lowest):

By Location:	By Practitioner:
1. LWDH	1. Physician
2. Kenora community of practice	2. Pharmacist
3. Other community of practice	3. Other Health Care provider
4. Other hospital	4. Medical Student
5. Other	5. Other Non-healthcare provider
	6. Nurse
	7. Resident
	8. Surgeon
	9. Physician Assistant
	10. Nurse Practitioner
	11. Locum Physician
	12. Other student

We are also able to see what antimicrobials and pathogens are most accessed as of January (highest to lowest):

Antimicrobials:	Pathogens:
Ceftriaxone	Streptococcus, Group B
Penicillin G	Staphylococcus Aureus (MRSA)
Cefazolin	Escherichia Coli
Piperacillin-Tazobactam	Streptococcus pyogenes, Group A
Cephalexin	Staphylococcus Aureus
Vancomycin	ESBL Organisms
Septra	Staphylococcus Aureus (MSSA)
Amoxicillin	Anaerobic gram + cocci
Doxycycline	Streptococcus pneumoniae
Ampicillin	Enterobacter cloacae group

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Lessons Learned:

- Now that we have implemented the app, we have realized there is no formal way of determining the impact it has had on antimicrobial usage in the hospital;
- We will be able to target non-users for their compliance;
- We will be able to develop educational programs (grand rounds) based on the most accessed pathogenic information;
- The app was really well received both internal and external to the organization. There was a handful of locum physicians that have used it at other facilities were very excited to know that we have access to this information at our hospital from their own personal phone/tablet, etc.;
- Antimicrobial stewardship is incredibly important and there is currently no funding in place at our hospital. This made it challenging to perform the regular duties of our jobs and reach our goal of implementation;
- ASP data such as compliance with empiric treatment guidelines, defined daily dose, and total days of therapy (length of therapy) will still need to be determined by personal review of pharmacy data.

ANTIMICROBIAL RESISTANT ORGANISMS IN CANADIAN LONG-TERM CARE FACILITIES: RESULTS FROM A NATIONAL POINT PREVALENCE SURVEY

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Background: Infections caused by antimicrobial resistant organisms (ARO) are a significant issue in long-term care facilities (LTCF), where there are limited data on prevalence and practices related to AROs. We sought to examine ARO screening practices and infections reported by Canadian LTCF as part of a national cross-sectional survey.

Methods: From March to May 2019, LTCF chose one 24-hour period to assess the burden of bacterial infections and completed questionnaires on residents who had an infection on the selected day. LTCF also completed a questionnaire about their site, including practices related to ARO screening. Prevalence of infection and the percentage of residents with ARO were calculated using the total number of residents present in all participating LTCF on the survey day. ARO screening practices and infection prevention and control resources were examined by region and type of facility.

Results: Data from 13,635 residents in 133 LTCF were collected. The median number of LTC beds per site was 79 (IQR: 60-140), and 63% of residents were female. More LTCF were in Western (45.1%) compared to Central (35.3%) and Eastern Canada (19.5%); 58.6% were public facilities and 18.8% were private. The proportion of LTCF that screened residents varied by ARO: *Clostridioides difficile* (91.0%), VRE (61.7%) CPO (46.6%), ESBL (24.1%). LTCF in Western Canada were less likely to screen residents for MRSA (48.3%) or VRE (28.3%) compared to LTCF in other regions ($\geq 89\%$, $p < 0.0001$). At least 50% of LTCF had access to an infection control professional; this increased from 40% in smallest LTCF (<50 beds) to 69% in facilities with ≥ 150 beds, and was greater in public (63%) vs private (16%) sites. Overall, 3.3% of residents had an infection on the prevalence day; urinary tract and skin/soft tissue infections comprised 68% of all reported infections. Prevalence of ARO infection was 0.41%; this was significantly greater in private (1.06%) vs public (0.25%) sites ($p < 0.0001$). MRSA was most commonly reported (4.4% of residents were MRSA colonized and 0.3% had MRSA infection). Among residents with infection, those ARO colonized within the past 12 months were more likely to have an ARO infection compared to those not ARO colonized (OR 28.6 [95% CI: 13.9, 59.0]). A greater proportion of residents with ARO infection were hospitalized in the past 12 months (51.7% vs 38.8% of residents with non-ARO infection).

Conclusion: Our survey found a measurable burden of ARO and variable screening practices, demonstrating the importance of surveillance in LTCF. Infection control professionals were least accessible in private facilities where ARO prevalence was greatest. In addition to increased vigilance for risk factors associated with ARO infection such as previous ARO colonization and hospitalization, capacity building for infection prevention and control are critical components in curbing the spread of antimicrobial resistance in LTCF.



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