



IPC News January 2022

ACIPC President Kristie Popkiss

Welcome to the January issue of IPC News.

As we swelter through summer, I am thinking of those of you working in full PPE. We all know how challenging it can be communicating with peers and patients whilst remaining calm and vigilant in our roles.

This year we will be working hard behind the scenes to keep members updated with the latest IPC information and resources. We will be forming two new committees; the Membership Communication and Engagement Committee and the Research, Grants and Scholarships



Committee which will both focus on supporting our members in their IPC careers.

Outlines of all College committees and an expression of interest for committee membership will sent to members during the month of February.

Even this early in the year, I am already looking forward to our conference in November. Last year the Scientific Conference Committee (SCC) chaired by Annie Wells put together an incredible, thought-provoking program. I am delighted to announce that Associate Professor Holly Seale will take over as chair for the 10th International ACIPC Conference. On behalf of the Board of Directors, I warmly welcome Holly as chair of SCC and look forward to hearing about the 2022 conference program as it is developed. Members can find out more about Holly in her profile which is featured in this newsletter.

It can be hard to remain positive as we all deal with the many implications of Covid and the Omicron variant. It was heartbreaking to hear of those unable to visit family or friends over the holiday period due to the many restrictions imposed by the pandemic.

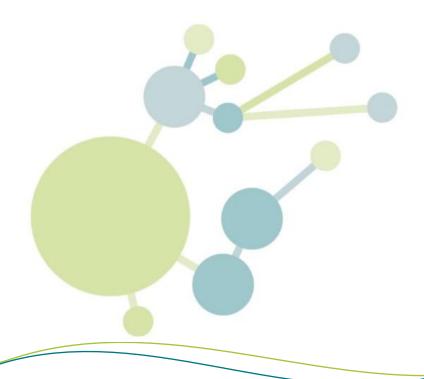
Even more distressing is the news of staff shortages across all sectors. I am thinking in particular of our colleagues in aged care who are facing some extremely tough times, as more than half of aged care homes across the country experience outbreaks. I am proud of all of our colleagues working through the pandemic and feel humbled to be at the helm of an organisation where all our members are dedicated to infection prevention and control.

Warm regards,

Kristie Popkiss

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<u>Using a simplified ATP algorithm to improve data reliability and improve cleanliness standards for</u> surface and medical device hygiene

Greg S. Whiteley, Trevor O. Glasbey, Paul P. Fahey

<u>Unexpected benefit of COVID-19 hospital restrictions: Reduction in patients isolating with multidrug resistant organisms after restrictions were lifted</u>

Thomas M. Elliott, Cameron Hurst, Michelle Doidge, Trish Hurst, Patrick NA. Harris, Louisa G. Gordon

Performance of hospital-based contact tracing for COVID-19 during Australia's second wave

Christopher R. Bailie, Vivian K. Leung, Elizabeth Orr, Elizabeth Singleton, Cate Kelly, Kirsty L. Buising, Benjamin C. Cowie, Martyn D. Kirk, Sheena G. Sullivan, Caroline Marshall

Reprocessing of loaned surgical instruments/implants in Australia and Brazil: A survey of those at the coalface

Anaclara Ferreira Veiga Tipple, Dayane de Melo Costa, Lillian Kelly de Oliveira Lopes, Thais Rodrigues Veloso, Luiz Antônio Pereira, Honghua Hu, Dulcelene de Sousa Melo, Junnia Pires de Amorim Trindade, Karen Vickery

Personal protective equipment training for non-healthcare workers in the Covid-19 pandemic: Effectiveness of an evidence-based skills training framework

Ming Han Lincoln Liow, Lai Chee Lee, Nigel Choon Kiat Tan, Hiang Khoon Tan, Weien Chow, Geok Ling Elaine Wee, Sin Hui Wong, Jayarani Paramasivam, Kevin Tan, Moi Lin Ling

<u>Universal testing for SARS-CoV-2 infection on admission among hospitalized emergency patients: A survey report from a single facility in Tokyo</u>

Shoko Marshall, Motonao Ishikawa, Hiroaki Tanaka, Hiroshi Sakura, Yasuko Uchigata



From the Editor-in-Chief Infection Disease and Health



Professor Brett Mitchell

After another busy 2021, I would like to thank all the peer reviewers for Infection Disease and Health. Reviewers give up their own time to critique and provide critical input into articles received by the journal. Without their support, it would not be possible to produce the high-quality publications for the journal. Many reviewers have been engrossed in the COVID-19 response and even with this additional workload, they have made wonderful contributions through the peer reviewer process. Thank you.

As clinicians, policy makers or academics we have had the opportunity to learn from articles published. This opportunity would not have happened without individuals supporting the journal through peer review – in addition to the contributions and work of the authors involved. If you have not yet been involved in peer review, please consider it. Feel free to contact me directly. We use peer reviewers with a range of backgrounds – clinical, specific expertise or knowledge, academics, managers and policy makers as some examples. It is through a robust, multi-disciplinary approach to peer review that we are able to produce high quality papers.

To acknowledge and thank those involved, I have <u>listed the names of colleagues</u> who have completed a peer review during 2021 (up until December). On behalf of the editorial team, authors and consumers of the journal, thank you.

During 2021, we have seen some wonderful contributions to the journal. At the time of writing top five most downloaded article for 2021 were:

- 1. A suggested sampling algorithm for use with ATP testing in cleanliness measurement
- 2. Effectiveness of insertion and maintenance bundles in preventing peripheral intravenous catheter-related complications and bloodstream infection in hospital patients: A systematic review
- 3. The burden of healthcare-associated infection in Australian hospitals: A systematic review of the literature
- 4. Air travel in a COVID-19 world: Commercial airline passengers' health concerns and attitudes towards infection prevention and disease control measures
- 5. Strategies to reduce non-ventilator-associated hospital-acquired pneumonia: A systematic review

The full editorial including references and links to articles can be found on the IDH website https://www.idhjournal.com.au/article/\$2468-0451(21)00101-2/fulltext



Holly Seale, Chair of the Scientific Conference Committee



Associate Professor Holly Seale is an infectious disease social scientist at the School of Population Health at the University of New South Wales in Australia. She has over 15 years of experience in undertaking social science research focused on improving confidence and engagement of different at-risk groups with immunisation and other prevention strategies.

The social science and behavioural research that she leads focuses on promoting acceptance and uptake of immunisation while applying a "whole-of-life" lens. It incorporates innovative research focused on groups that traditionally have received less attention

and continue to have suboptimal uptake: children and adults with chronic medical conditions, culturally and linguistically diverse communities (focus on both migrants and refugees) and occupational groups including hospital healthcare providers. This research has included case study analysis, policy and programs reviews, community and stakeholder interviews, resource analysis, provider surveys, sero-studies, epidemiology- based studies and more. She works closely with local and state health departments to lobby for improved opportunities for vaccination, as well as to improve communication/promotion packages.

Holly also uses social science to drive quality and safety improvements in the healthcare sector, domestically and internationally including in China, Indonesia, Pakistan, Vietnam and Bangladesh. Over a 12-year period, she has mapped the climate around staff vaccination programs and mandates, as well as the system factors impacting program delivery from the perspective of the individual staff member, the agents involved with delivering programs and those in positions of authority. She has undertaken research to support the use of masks and respirators including around the use of cloth masks during pandemic and non-pandemic periods. Lastly, she also works to address issues impacting on patient and family engagement with infection prevention and control strategies across Australia, Bangladesh, Indonesia and South Korea. Within this program, she explores the patient, provider and system factors that influence engagement and acceptance of infection prevention strategies and formulates and develop approaches/interventions to improve acceptance and compliance. Most recently, she has expanded this work to include a focus on antimicrobial resistance and stewardship.

You can follow Holly on Twitter @hollyseale





Here is a list of IPC podcasts. We are always interested in recommendations for new podcasts and IPC content. Please email the team at office@acipc.org.au with your recommendations.

Infection Control Matters Podcast

Infection Control Matters is hosted by Brett Mitchell and Martin Kiernan who discuss new research and issues on the topic of infection prevention and control as well as new papers of interest. The Christmas Special is a great listen as Brett, Martin and ACIPC Past-President Phil Russo discuss the year that was and have a few laughs along the way.

Doherty Insitute podcast <u>Infection and Immunity – Evidence Explained</u>

In the latest episode, Professor Sharon Lewin explains the latest evidence on Omicron.

How severe is Omicron? How easily is it transmitted? How do vaccines fare against this new variant of COVID-19? What about treatments? Should we be making the switch to N95 masks? And what affect will this global wave have on the future of the pandemic?

Australian College of Nursing podcast Let's Talk Leadership

Season two of ACNS's podcast has just launched and will feature interviews with nurse leaders and include community features and clinical scenarios.

Oxford Academic Open Forum Infectious Diseases Podcast

This podcast is an addendum to the journal Open Forum *Infectious Diseases*. In the latest episode, OFID Editor in Chief Paul Sax, MD, interviews Chris Stolarski, Associate Director of University Communication at Marquette University, about his frightening experience with COVID-19 infection and hospitalisation and sharing his story to encourage others to get vaccinated.

FIPC Course Availability

The College is running Foundations of IPC on demand. Visit the ACIPC website for upcoming courses and to book a course.

Visit: https://www.acipc.org.au/education/

FIPC Graduates Wear Their Pins With Pride

We now have over 3000 Aged Care Leads who have graduated from the FIPC course. Anyone who has successfully completed the course can apply for an FIPC Graduate Pin via the ACIPC website and pictures of our proud graduates are featured in the FIPC Gallery - https://www.acipc.org.au/acipc-fipc-graduate-pin-gallery/.



ACIPC FIPC Graduate Pin Gallery



Evelyn Kelly



Sue Orr



Po Man Li



Karen Slater



Lou(Maria) Da Silva



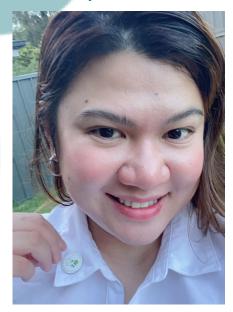
Jovilyn McDonald



Karen Nedeljkovic



Mariette Boshoff



Sheryl Canto

ACIPC FIPC Graduate Pin Gallery



Ellie Walsh



Dada Makwe



Petya Zhelezarova



Fiona McKinlay



Ravai Makwara



Susan Miller



Teena Antony



Ann Relf



Lakhwinder kaur

One Health for Human Health Clinicians - In Light of COVID-19, Are We Approaching a Tipping Point?

Webber training is an excellent resource for the latest IPC education and resources. The <u>latest free</u> recording discusses One Health and the global One Health movement, examples of cross-professional collaborations and why One Health working collaborations are important. You can learn more about free Webber training IPC resources here - https://webbertraining.com/index.php

Uncovering the Impact of Long COVID on the Body's Immune System

A research collaboration between SAHMRI, the University of Adelaide, Flinders University, the Women's and Children's Hospital, and the Royal Adelaide Hospital has shed new light on the impact of long COVID on the body's immune system.

A research collaboration between SAHMRI, the University of Adelaide, Flinders University, the Women's and Children's Hospital, and the Royal Adelaide Hospital has shed new light on the impact of long COVID on the body's immune system. The study recently published in BMC Medicine profiled the immune systems of 69 people aged between 20 and 80 years old who contracted the original Wuhan strain of COVID-19, over a 6-month period post infection. Of the total cohort, 47 were recovering from mild infection, 6 from moderate and 13 were recovering from severe or critical disease. Around a third of those individuals recovering from infection had symptoms associated with long COVID and were referred to a long COVID clinic.

Analysing the expression of thousands of genes in the blood of these individuals at 6 months post-infection compared to those who didn't suffer long COVID symptoms, revealed significant differences in gene expression particularly in genes involved in the immune system. One of the most significant changes in gene expression in long COVID patients was related to platelets, small blood cells that help with clotting and tissue repair.

The data suggests that long COVID patients may have reduced platelet counts or activity known as thrombocytopenia. Professor David Lynn, Director of SAHMRI's Computational & Systems Biology Program and Professor of the College of Medicine & Public Health at Flinders University, says low platelet count is associated with fatigue.

"Our gene expression data could suggest persistent mild thrombocytopenia in people with long COVID and one of the most common side effects of this condition is fatigue, which is also one the primary symptoms associated long COVID," Prof Lynn said.

"This could go some way towards explaining what's happening inside the body that's causing long COVID, but further work is needed to confirm this finding."

Most study participants (those with and without subsequent long COVID) showed significant immune system dysregulation for at least 12 weeks post infection, though the majority returned to normal levels by 24 weeks. Researchers found no strong correlation between severity of infection and the severity of immune dysregulation post infection.



Immune dysregulation was evident even in those patients who experienced mild infection. It's yet to be determined why some people get long COVID and not others, as well as how the various strains of the virus might impact long COVID differently.

"The level of disease severity doesn't necessary translate directly to the level of immune dysregulation and we haven't been able to find any patterns indicating that an individual's age or sex is a differentiating factor governing differences in recovery. Clearly there are other factors at play that need to be explored," Prof Lynn said.

"At this stage we've only been able to analyse data from the original strain of the virus, so it's not possible to say how Delta and Omicron may alter the immune system response long term post-infection."

The research paper is published in BMC Medicine - https://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-021-02228-6

Superbugs Killed More People in 2019 than AIDS or Malaria



An estimated 1.2 million people died in 2019 from antibiotic-resistant bacterial infections, more deaths than HIV/AIDS or malaria

- First comprehensive analysis of global impact of antimicrobial resistance (AMR) estimates
 resistance itself caused 1.27 million deaths in 2019, and that antimicrobial-resistant infections
 played a role in 4.95 million deaths.
- Estimates for 204 countries and territories confirm AMR as a global health threat, with worst impacts in low- and middle-income countries (LMICs), though higher income countries also face alarmingly high levels of AMR.
- Rapid investment in new treatments, improved infection control measures, and optimised use
 of antibiotics are among the measures that can help countries protect their health systems
 against the threat of AMR.

More than 1.2 million people – and potentially millions more – died in 2019 as a direct result of antibiotic-resistant bacterial infections, according to the most comprehensive estimate to date of the global impact of antimicrobial resistance (AMR).



The analysis of 204 countries and territories, published in The Lancet, reveals that AMR is now a leading cause of death worldwide, higher than HIV/AIDS or malaria. It shows that many hundreds of thousands of deaths now occur due to common, previously treatable infections – such as lower respiratory and bloodstream infections – because the bacteria that cause them have become resistant to treatment.

The report highlights an urgent need to scale up action to combat AMR, and outlines immediate actions for policymakers that will help save lives and protect health systems. These include optimising the use of existing antibiotics, taking greater action to monitor and control infections, and providing more funding to develop new antibiotics and treatments.

The analysis shows AMR was directly responsible for an estimated 1.27 million deaths worldwide, and associated with an estimated 4.95 million deaths, in 2019. HIV/AIDS and malaria have been estimated to have caused 860,000 and 640,000 deaths, respectively, in 2019. [2]

While AMR poses a threat to people of all ages, young children were found to be at particularly high risk, with around one in five deaths attributable to AMR occurring in children aged under five years.

Writing in a linked Comment, Dr Ramanan Laxminarayan, Center for Disease Dynamics, Economics & Policy (USA), who was not involved in the study, said: "From being an unrecognised and hidden problem, a clearer picture of the burden of AMR is finally emerging. Even the lower end of 911,000 deaths estimated by Murray and colleagues is higher than the number of deaths from HIV, which attracts close to US\$50 billion each year. However, global spending on addressing AMR is probably much lower than that. This needs to change. Spending needs to be directed to preventing infections in the first place, making sure existing antibiotics are used appropriately and judiciously, and to bringing new antibiotics to market. Health and political leaders at local, national, and international levels need to take seriously the importance of addressing AMR and the challenge of poor access to affordable, effective antibiotics."

The research paper is published in The Lancet and link to research can be found here - https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext



COVID Stories – Mary-Jane Uyammi



ACIPC Member Mary-Jane Uyammi was kind enough to share her story as Clinical Nurse and IPC Lead working during the pandemic. In this short video, Mary-Jane talks about what she has learned during this time and steps taken to make her facility a safer place. The video was featured as part of our *COVID Stories* series at the <u>2021 ACIPC International Conference</u>. You can listen to Mary-Jane's story here - https://www.acipc.org.au/covid-stories-mary-jane-uyammi/

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ACIPC

Level 6, 152 Macquarie Street, HOBART TAS 7000

ABN 61 154 341 036

+61 (3) 6281 9239

office@acipc.org.au

www.acipc.org.au

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