

ACIPC

Australasian College  
for Infection Prevention and Control

**IPC News**  
February 2022

## ACIPC President Kristie Popkiss



Welcome to the February issue of IPC News.

Some of our newer members may not know that the College is represented on a number of national and international boards, committees and working groups. These include the Infection Control Expert Group (ICEG) advising the Chief Medical Officer on COVID-19, National COVID-19 Clinical Evidence Taskforce, Global Outbreak Alert and Response Network (GOARN) and The International Federation of Infection Control (IFIC). In this way, the College provides a voice for infection prevention and control and contributes to the wider health agenda. The process for representation is via formal appointment by the Executive Management Team and a detailed list can be found on the [ACIPC Representation page](#).

Members of the College are often invited to provide input via surveys, public consultation and also working on ACIPC committees. This is where you come in! There are currently a number of committees, chaired by our Board members who are seeking your input and expertise via committee membership.

Joining an ACIPC committee is a great opportunity to get to know your colleagues in IPC, mentor, support and create resources for your peers and find out more about what happens behind-the-scenes at ACIPC. If you are interested in joining the Practice Guidance, Membership Communication and Engagement, Research, Grants and Scholarships or Credentialling and Professional Standards Committees, check out the [homepage for details](#). Committee updates will be published in IPC News throughout the year.

In two pieces of good news, our colleague Nicole Tolhurst has recently become recredentialled at the Advanced level. Congratulations Nicole. Also, I am pleased to report that since the beginning of the year, we have had 139 students graduate from FIPC. Well done to all.

Recently I shared an article on my LinkedIn page [Quality Improvement is "Kindness with a Strategy"](#). This article really resonated with me, having worked in quality improvement in healthcare for a number of years. I'm sure we can all relate to feeling overwhelmed, overworked and overburdened emotionally. It can seem idealistic at times to consider kindness to others, and to oneself in the midst of all of the 'messy' challenges we face daily. For me, I find it useful to remember as healthcare workers, we are looking after people at their most vulnerable. Sometimes taking a step back and taking a deep breath gives me an opportunity to recalibrate and consider empathy and kindness as a baseline to work from. Kindness is not something that can be measured, but it is a powerful tool, and can help us think strategically about the best practical and most helpful way forward in our challenging roles.

Until next month, warm regards,

A handwritten signature in black ink that reads "K Popkiss".

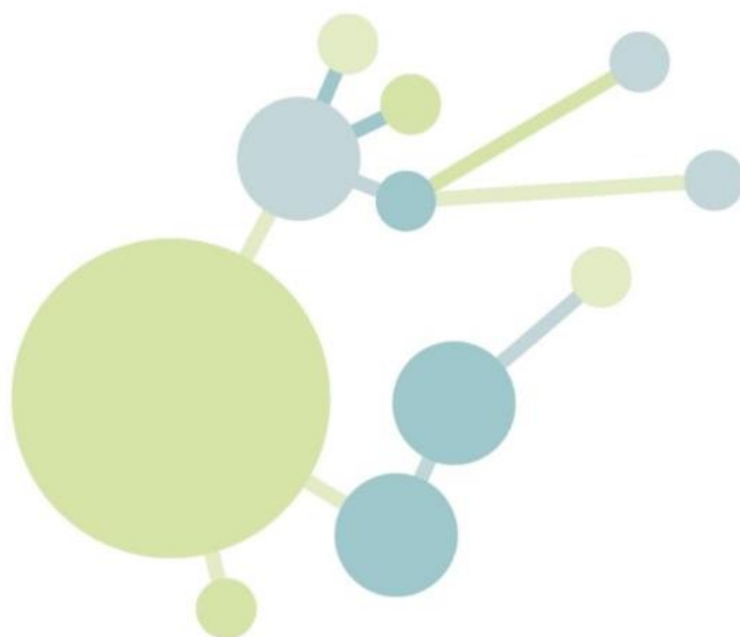
Kristie Popkiss

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## Latest Articles from *Infection Disease & Health*

[Association between consumption of antibiotics, infection control interventions and \*Clostridioides difficile\* infections: Analysis of six-year time-series data in a tertiary-care hospital in Greece](#)

Amalia Papanikolopoulou, Helena C. Maltezou, Panagiotis Gargalianos-Kakolyris, Anastasia Pangalis, Nikos Pantazis, Constantinos Pantos, Yannis Tountas, Athanasios Tsakris, Maria Kantzanou

[A cost-effectiveness model for a decision to adopt temporary single-patient rooms to reduce risks of healthcare-associated infection in the Australian public healthcare system](#)

Nicholas Graves, Martin Kiernan, Brett G. Mitchell

[Respiratory protection preparedness in critical care healthcare workers: An observational audit of facial hair at a major tertiary hospital in Australia](#)

Daryl L. Williams, Fiona Begg, Charles Bodas, Irene Ng



## Featured Article: *Infection Disease & Health*

### **P2/N95 respirators & surgical masks to prevent SARS-CoV-2 infection: Effectiveness & adverse effects**

Breanne Kunstler, Skye Newton, Hayley Hill, John Ferguson, Phillipa Hore, Brett G. Mitchell, Kathy Dempsey, Andrew J. Stewardson, Deborah Friedman, Kate Cole, Malcolm R. Sim, Bridget Ferguson, Penelope Burns, Nicole King, Steven McGloughlin, Melanie Dicks, Sally McCarthy, Barry Tam, Briony Hazelton, Cherylynn McGurgan, Steve McDonald, Tari Turner.

#### **Abstract**

##### **Background**

Millions of people have acquired and died from SARS-CoV-2 infection during the COVID-19 pandemic. Healthcare workers (HCWs) are required to wear personal protective equipment (PPE), including surgical masks and P2/N95 respirators, to prevent infection while treating patients. However, the comparative effectiveness of respirators and masks in preventing SARS-CoV-2 infection and the likelihood of experiencing adverse events (AEs) with wear are unclear.

##### **Methods**

Searches were carried out in PubMed, Europe PMC and the Cochrane COVID-19 Study Register to 14 June 2021. A systematic review of comparative epidemiological studies examining SARS-CoV-2 infection or AE incidence in HCWs wearing P2/N95 (or equivalent) respirators and surgical masks was performed. Article screening, risk of bias assessment and data extraction were duplicated. Meta-analysis of extracted data was carried out in RevMan.

##### **Results**

Twenty-one studies were included, with most having high risk of bias. There was no statistically significant difference in respirator or surgical mask effectiveness in preventing SARS-CoV-2 infection (OR 0.85, [95%CI 0.72, 1.01]). Healthcare workers experienced significantly more headaches (OR 2.62, [95%CI 1.18, 5.81]), respiratory distress (OR 4.21, [95%CI 1.46, 12.13]), facial irritation (OR 1.80, [95%CI 1.03, 3.14]) and pressure-related injuries (OR 4.39, [95%CI 2.37, 8.15]) when wearing respirators compared to surgical masks.

##### **Conclusion**

The existing epidemiological evidence does not enable definitive assessment of the effectiveness of respirators compared to surgical masks in preventing infection. Healthcare workers wearing respirators may be more likely to experience AEs. Effective mitigation strategies are important to ensure the uptake and correct use of respirators by HCWs.

**Access the full article here:** [https://www.idhjourn.com.au/article/S2468-0451\(22\)00001-3/fulltext](https://www.idhjourn.com.au/article/S2468-0451(22)00001-3/fulltext)



## New Requirement for All Levels of Credentialling & Recredentialling

It is a requirement for all credentialling applicants to be currently working in IPC. This means if you are submitting an application, you'll need to include with your application either a Statement of Service from your current employer OR a certified Statutory Declaration outlining your current position in IPC.

[Download Credentialling Package](#)

[Download Recredentialling Package](#)

For more information on Credentialling visit: <https://www.acipc.org.au/credentialling/>

## FIPC Graduates Wear Their Pins With Pride

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's FIPC course has given me the confidence and knowledge to promote and educate others in infection prevention and control measures in my workplace. FIPC has allowed me to be thorough in improving IPC practice in my aged care facility.



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## 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/>

## Griffith's Graduate Certificate in Infection Prevention and Control



If you are looking to commence or further your studies, the Griffith's Graduate Certificate in Infection Prevention and Control will be offered as Commonwealth Supported Places (CSP). This means that you may be eligible to receive 31% off course fees.

More information is available here: <https://www.griffith.edu.au/job-ready-certificates>

**Graduates of the Foundations of Infection Prevention and Control course can apply for credit against 8847NRS Contemporary Infection Prevention Practices unit.**

## IPC Dental Stock Images Available for Licensing



Finding IPC stock images can be challenging, especially with the need for accurate representation of PPE and images that adhere to industry standards.

Dental Stock Photos produces high quality images to assist you to showcase, elevate and promote dental industry practices. All DSP images are overseen by Dr Roslyn Franklin who is a long-standing ACIPC member, an experienced

dentist, teacher of dental assistants, writer of dental education materials, and passionate prevention and infection control consultant.



**For more information visit:** <https://dentalstockphotos.com/>



## A Brief History of 70-years' Hospital IPC in Australia

Modern hospital infection prevention and control (IPC) in Australia, had its roots in the 1940s/50s, when outbreaks of hospital-acquired 'Staphylococcus pyogenes' surgical and neonatal infections were first described and investigated. In the 1960s, increasing surgical site infection (SSI) rates and antibiotic resistance prompted bacteriologists and surgeons, collaboratively, to appoint the first 'infection control nurses' (ICNs), in Brisbane, 1962 and Sydney, 1965 (when MRSA was first identified) and, gradually, in other states and more hospitals.

ICNs' main task, initially, was SSI surveillance, which they combined with daily ward visits and on-the-spot staff coaching, but they rapidly became involved and influential in all aspects of hospital practice – cleaning, sterilisation, ventilation, and aseptic technique – often with technical and moral support from hospital microbiologists. However, in the 1970s, when ICNs were required for hospital accreditation, many were appointed without role definition or training. Local support and education groups formed; they amalgamated, in 1985, into AICA, and ACIPC in 2011. Opportunities for training, ICP appointments and recognition of IPC as a critical subspeciality increased, gradually but haphazardly.

Meanwhile emerging viral infections – HBV, HIV, HCV, SARS-CoV-1, H1N1pdm09, MERS-CoV, Ebola – have raised awareness and improved IPC practice, intermittently, but complacency has returned between crises. Although hand hygiene compliance has increased and MRSA prevalence and SABS rates have fallen, AMR and preventable HAIs persist, and national HAI surveillance is elusive.

Will the aftermath of COVID-19 be different? How can we consolidate the lessons, maintain IPC awareness and embed best practice and resilience into the future?



Professor Lyn Gilbert is an infectious disease physician, clinical microbiologist, and University of Sydney professor and senior researcher at Marie Bashir Institute for Infectious Diseases and Biosecurity.

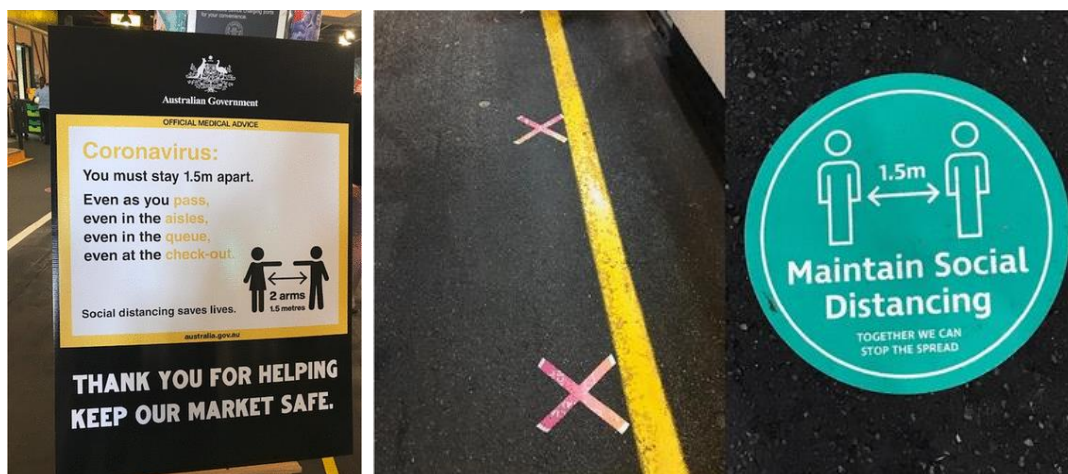
She has nearly 50 years' experience in diagnosis, surveillance, prevention and control of infectious diseases of public health importance. For 25 years, she was director of Clinical Microbiology at ICPMR, Westmead and clinical lead in infection prevention and control (IPC).

After a long career in clinical medicine and microbiological research, she has concentrated on applied ethics research, over the past 5-10 years, focusing on aspects of IPC, and gained experience in qualitative research methods including video-reflexive ethnography. From February 2020 to March 2021, she was chair of the national Infection Control Expert Group (ICEG) that advises the Australian Health Protection Principal Committee (AHPPC) on COVID-19 and, since March 2020, has conducted four independent reviews of COVID-19 outbreaks in residential aged care facilities in Australia.

**Professor Lyn Gilbert presented on the history of IPC in Australia for the ACIPC International Conference. You can watch the presentation in full here <https://vimeo.com/681113928/e1d14f7498>**



## Health Signs Signal Change - COVID alerts encourage social engagement and choice



The use of COVID-19 health warnings and regulation in posters and public signage has effectively turned much of the responsibility and policing of compliance back on individuals, say sociology experts at Flinders University.

Using a wide sample of signage – some complicated, some more simple – the experts have looked at the proliferation of signs and instructions as one aspect pandemic life aiming to stem transmission and ‘stay safe’.

“We found a wide range of visual ways in which the messages are communicated – often they were very simple in design, even emojis,” says Matthew Flinders Distinguished Professor Sharyn Roach Anleu.

While signs provide important public health information and rely on simple language, they are normative, the researchers say. Individuals are expected – invited, requested, implored, or required – to follow new procedures and instructions, such as physical distancing or wearing a mask, and to remember older hygiene norms such as handwashing.

“And while we didn’t set out to analyse their effectiveness in modifying and regulating diverse behaviour, it is apparent that their role in the pandemic has some far-reaching effects on generating and communicating new norms about personal and collective behaviour,” she says.

“We have seen growth in the visual cues and signage now embedded in how we manage our COVID response.” Also known as ‘[official graffiti](#)’, such signage is one aspect of social regulation.

“The effectiveness of all these signs may rest in them giving ordinary people legitimacy to ask others to comply with the instructions and even change their behaviour,” says co-author Monash University researcher George Sarantoulas, also from the Flinders University College of Humanities, Arts and Social Sciences.

“While the signs don’t usually rely on formal law administration, the enforcement therefore becomes part of every-day, ordinary social interaction,” he says.

These simple instructions anticipate individuals will be motivated to stem the spread of the disease for their own health and the collective benefit, the research concludes.

The article, '[Complex data and simple instructions: Social regulation during the Covid-19 pandemic](#)' (2022) by Sharyn Roach Anleu and George Sarantoulas has been published in the *Journal of Sociology* (Sage) DOI: 10.1177/14407833211066926

Images by Professor Sharyn Roach Anleu.

## Aiming to End the Refrigeration of Vaccines



Researchers at Australia's national science agency, CSIRO, have developed a technique that addresses the challenge of transporting temperature-dependent vaccines, which researchers hope may increase access in rural and remote communities in Australia and developing countries.

The World Health Organisation estimates that at least 50 per cent of vaccines are wasted globally each year, with a lack of facilities and temperature control the major cause.

Recently published in *Acta Biomaterialia*, CSIRO researchers encapsulated live virus vaccines with a dissolvable crystalline material called MOFs (metal organic frameworks), which protected the integrity of the vaccines for up to 12 weeks and at temperatures as high as 37 degrees Celsius. Without refrigeration the vaccines would otherwise last only a few days.

CSIRO scientist and immunologist, Dr Daniel Layton, said the breakthrough science would now focus on proving the approach for other animal and human vaccines, including mRNA COVID-19 vaccines.

"Vaccination is undoubtedly one of the most effective medical interventions, saving millions of lives each year, however delivering vaccines, particularly to developing countries, is challenging because they often lack the cold storage supply chains required to keep the vaccine viable," Dr Layton said.

"Live virus vaccines are extremely effective, but their complex composition makes them susceptible to high temperatures, and a universal stabilisation technique has not been found.

"This breakthrough has the potential to enable more affordable and equitable access to vaccines across the world."

The research focused on two different types of live viruses as proofs of concept, a Newcastle Disease vaccine designed to protect poultry and a strain of Influenza A.

When MOFs were formed around the vaccines they helped protect the vaccine molecules from heat stress. A solution was then used that dissolved the MOF for administration of the vaccine.

CSIRO senior scientist Dr Cara Doherty said MOFs were the perfect material for protecting vaccines from temperature variations.

“MOFs are a porous crystalline material that can grow around the vaccine to form a scaffold that protects against temperature variations,” Dr Doherty said.

“MOFs work similarly to a scaffold you might put around your house, once you remove the scaffold, your house remains – which is what happens when we dissolve the MOFs in a vaccine.”

CSIRO researcher and author of the paper, Dr Ruhani Singh, said the technique was cost-effective and scalable.

“There are two common approaches to protecting vaccines from heat. You can modify the vaccine, which is complex and laborious and at high temperatures may still only last less than a week, or you can use other stabilising agents which pose challenges including how to realistically scale up the solution.

“This world-first approach of stabilising a vaccine with MOFs is simple, rapid, and scalable because it takes one-step.”

The team continue to progress this research and are looking to partner with animal and human health companies to commercialise their work. Their research forms part of CSIRO’s biomedical research, which is aiming to generate new opportunities for Australian businesses and increase national sovereign capability.

Link to research (DOI): [10.1016/j.actbio.2022.02.002](https://doi.org/10.1016/j.actbio.2022.02.002) Journal/conference: Acta Biomaterialia

## IPC Job Opportunity

### Infection Prevention and Control Advisor – Aged Care



This is an exciting opportunity for a passionate Infection Prevention and Control Practitioner to join Calvary Health Care.

**Where:** Little Company of Mary Health Care Ltd

**Role:** Infection Prevention and Control Advisor – Aged Care

**Closing Date:** 28/02/2022

The successful applicant will be responsible for the development and implementation of an Infection Prevention and Control Program across Calvary Residential Aged Care Services.

**For additional info:** <https://www.calvarycare.org.au/careers/current-vacancies/careers-at-national-office/>



## IPC Newsletters

Here's a list of IPC newsletters from ACIPC-affiliated organisations.



**GLOBAL HEALTH  
ALLIANCE  
AUSTRALIA**

[Australian Global Health Alliance](#)

This monthly newsletter is a great round up of global health news, jobs, events and updates from alliance members including ACIPC.

Subscribe [here](#)

NATIONAL  
**COVID-19**  
CLINICAL  
**EVIDENCE**  
TASKFORCE

[National COVID-19 Clinical Evidence Taskforce](#)

The Taskforce brings together the peak health professional bodies across Australia whose members are providing clinical care to people with COVID-19.

You can subscribe to receive communiques and updates via the [Taskforce website](#).

**AUSTRALIAN COMMISSION  
ON SAFETY AND QUALITY IN HEALTH CARE**

[Australian Commission on Safety and Quality in Health Care](#)

The latest issue of On the Radar includes items on COVID-19, the Australian Charter of Healthcare Rights, hospital acquired complications, medication related hospital admissions and more. The issue also covers latest issues of *Australian Health Review*, *Future Leaders Communiqué* and the *Journal of the Australian Indigenous HealthInfoNet* along with the latest from the UK's NICE and NIHR. Subscribe to On the Radar and ACSQHC updates [here](#).







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[Learn More](#)



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