



AHS IPC works in the healthcare and public domains to promote practices that prevent and control the spread of infections. Most AHS IPC staff and physicians are site-based, and their work is primarily directed to patient populations and healthcare providers. AHS IPC also collaborates with partners who focus more directly on providing information targeted to the public.

Promoting awareness and education in the healthcare domain

Appropriate antibiotic use is identified as one of the key initiatives to prevent and control the spread of antimicrobial resistance. Significant work is ongoing to increase healthcare providers' knowledge about appropriate use of antimicrobials. The AHS Provincial Drug Formulary is the list of medications, including antimicrobials, available within AHS and Covenant Health and utilizes restrictions to guide their use. Additionally, there are several antimicrobial stewardship interventions that promote appropriate antibiotic use, and these are evidence-informed, measurable, and targeted.

AHS Antimicrobial Stewardship Program

AHS Pharmacy Services leads the AHS Antimicrobial Stewardship Program with support from AHS IPC. Dr. Lynora Saxinger, Medical Lead Antimicrobial Stewardship Northern Alberta, and Dr. John Conly, Infectious Diseases Physician, IPC, provide medical leadership as co-chairs of the AHS Antimicrobial Stewardship Committee, which reports to the AHS Drugs and Therapeutics Committee. Information about antimicrobial stewardship initiatives, resources, events, references, and external links are posted on the [AHS Antimicrobial Stewardship Program](#) webpage located on the external AHS website.

F.N.G. Starr Award

The Canadian Medical Association F.N.G. Starr Award is the highest award available to one of its members and recognizes outstanding and inspiring lifetime achievement. Dr. John Conly, Infectious Diseases Physician, IPC, was awarded the 2022 F.N.G. Starr Award for his vision and collaborative leadership, which have had a significant impact on medical practice, research, and relevant policies, resulting in improved human health on a national and global scale.

Dr. Conly's career, spanning almost four decades, includes several leadership roles within AHS and the University of Calgary, including being a former head of the Department of Medicine. His efforts in the areas of antimicrobial resistance and IPC have had impacts nationally and internationally, also earning him the Order of Canada in 2018 and the O'Brien Research Excellence Award through the University of Calgary in 2021.

Provincial antimicrobial stewardship highlights

AHS Antimicrobial Stewardship Program Survey

As part of the AHS Pharmacy Services review of the internal Provincial Antimicrobial Stewardship Program, an online survey was conducted in 2021/2022. The purpose of this survey was to gain perspectives from a variety of stakeholders looking toward building the future of the provincial Antimicrobial Stewardship Program. Survey results and recommendations for the Provincial Antimicrobial Stewardship Program are expected to be reported in 2023/2024, previously reported as 2022/2023.

Appropriateness and Stewardship in Asymptomatic Bacteriuria (ASAB) Initiative

The Appropriateness and Stewardship in Asymptomatic Bacteriuria (ASAB) Initiative is an interdisciplinary, province-wide project with the goals to reduce inappropriate urine testing and treatment of asymptomatic bacteriuria. This initiative is an ongoing collaboration between AHS Laboratory Medicine and AHS Pharmacy Services Drug Stewardship and is guided by a steering committee with support from Improving Healthcare Outcomes Together.

Throughout 2022/2023, work continued to promote uptake of the initiative and its resources. A significant milestone achieved for the initiative was changing the Connect Care Urine Culture Order Set to require a clinical indication, with the intent of reducing routine urine testing and tests with low clinical value. The order set also changed to include a link to resources on the [Appropriateness & Stewardship in Asymptomatic Bacteriuria \(ASAB\) Initiative](#) webpage. As sites are added to Connect Care the reach of the initiative will expand.

Local antimicrobial stewardship highlights

Select areas have local antimicrobial stewardship programs that support local improvement initiatives. Often activities use prospective audit and feedback initiatives, where trained physicians and pharmacists review targeted antimicrobial therapies and make recommendations to prescribing clinicians in real time when therapy is suboptimal. In 2022/2023, there were seven prospective audit and feedback initiatives either completed or ongoing in the Calgary Zone and Edmonton Zone. Results from the initiatives are shared with the AHS Antimicrobial Stewardship Committee as well as at relevant conferences such as Associate of Medical Microbiology and Infectious Disease (AMMI) Canada Annual Conference, American Society for Microbiology (ASM) Microbe, Infectious Disease (ID) Week, and European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) and through publication in the literature.

Efficacy and safety of antimicrobial stewardship prospective audit and feedback in patients hospitalized with COVID-19 (COVASP): a pragmatic, cluster-randomized, non-inferiority trial

The AHS and Covenant Health antimicrobial stewardship programs collaborated to conduct the COVASP trial at the University of Alberta Hospital as well as the Grey Nuns Community Hospital and Misericordia Community Hospital. The COVASP trial compared prospective audit and feedback plus standard of care with standard of care alone in adults admitted with COVID-19 pneumonia. This trial showed that prospective audit and feedback was safe and effective in optimizing and reducing antibiotic use.

Despite many competing priorities during the COVID-19 pandemic, antimicrobial stewardship should remain a priority to mitigate the overuse of antibiotics in this population. After the completion of the COVASP trial, prospective audit and feedback in patients hospitalized with COVID-19 became standard of care.

Antimicrobial stewardship activities in the Calgary Zone

Throughout 2022/2023, prospective audit and feedback continued for newly admitted patients to the Foothills Medical Centre. Antimicrobial stewardship pharmacists review patients admitted under Hospitalist Services that are started on antimicrobials to optimize therapy and perform a follow-up assessment for patients with longer stays. In 2021, this site-based initiative expanded to other sites in the Calgary Zone and, in 2022, expand to South Health Campus, Peter Lougheed Centre, and Rockyview General Hospital. Expansion to the Alberta Children's Hospital and rural Calgary Zone sites is planned for 2023.

Throughout 2022/2023, prospective audit and feedback continued for the management of bacteremia in the urban Calgary Zone sites. Antimicrobial stewardship pharmacists perform prospective patient follow-up based on laboratory events until infectious diseases consultation occurs. Interim patient care interventions such as effective antimicrobials and repeat blood cultures are applied. This initiative has been shown to be impactful and important work with plans to continue to expand its scope.

Antimicrobial stewardship activities in the South, Central, and North zones

Prescribing awareness is a proven quality improvement mechanism that assists clinicians with self-reflection to amend their practice. In 2021/2022, prescribers and patient care units the South Zone were provided with infographics that outlined their antimicrobial prescribing and utilization for the calendar year. An evaluation of this initiative was found to be beneficial for both prescribers and the patient care units as it facilitated discussion on this topic with teams. In 2022/2023, all rural AHS acute care and long-term care sites in Central Zone and all acute care and long-term care sites in the former Aspen Regional Health Authority in North Zone, received antimicrobial prescribing summaries. Site pharmacists were responsible for communicating the summaries to prescribers and other staff on the patient care units to open discussions about antimicrobial stewardship principles and the use of antimicrobials at their sites. The summaries are also posted on the Quality Boards on each patient care unit.

Antimicrobial stewardship activities in the Edmonton Zone

The prospective audit and feedback of restricted antibiotics such as carbapenems, daptomycin, and linezolid continued to be a core initiative. Since 2018 more than 3,500 prescriptions were reviewed and more than one-third of these prescriptions were optimized through the University of Alberta Hospital / Mazankowski Alberta Heart Institute / Kaye Edmonton Clinic Antimicrobial Stewardship Program

Covenant Health Antimicrobial Stewardship Program

Dr. Gordon Stewart, Senior Director Operations, Diagnostic Imaging, Pharmacy and Antimicrobial Stewardship, and Dr. Laura Burnes Achtymichuk, Infectious Diseases Physician, IPC, co-chair the Covenant Health Antimicrobial Stewardship Program. Information such as the Covenant Health Antimicrobial Stewardship e-Newsletter (CHASE), site-based antibiotic utilization reports, educational posters, and pre-printed forms and tools for management of key infectious syndromes are housed on the internal Covenant Health website.

There are several initiatives using prospective audit and feedback, including three ongoing initiatives on restricted antibiotics, inpatient fluoroquinolone prescriptions, and *S. aureus* bacteremia cases.

Promoting awareness and education in the public domain

Do Bugs Need Drugs? ®

In 2022/2023, Do Bugs Need Drugs? ® focused on expanding electronic outreach to all Albertans and the range of materials for vulnerable populations including:

- Emailing resources for early childhood educators and teachers to use in promoting proper handwashing and infection management in daycares and schools.
- Translating the Guide to Wise Use of Antibiotics into several languages used by immigrant and refugee communities such as Amharic, Bengali, Malayalam, Oromo, Pashto, S'gaw Karen, Swahili, and Ukrainian.
- Partnering with organizations such as Multicultural Health Brokers Cooperative, Foundation for Oromian Culture Education and Arts Services (FOCAS) Canada, and Catholic Social Services to translate versions of the Guide to Wise Use of Antibiotics into several languages used by immigrant and refugee communities such as Arabic, Amharic, and S'gaw Karen, Oromo, and Pashto.
- Using QR codes that can be applied to promotional materials to promote the Guide to Wise Use of Antibiotics.

All these initiatives aim to reflect the three key messages of Do Bugs Need Drugs? ®: hand hygiene is the best way to stop infection transmission; bacteria and viruses are different, and antibiotics do not work for viral infections; and use antibiotics wisely to limit the development of antibiotic resistance.

MyHealth.Alberta.ca

[MyHealth.Alberta.ca](https://myhealth.alberta.ca) is Alberta's online health resource for non-emergency health information. It offers valuable information on more than 8,700 health topics and includes tools that can help users make important decisions about their health. IPC-related content includes 13 patient care handouts. Albertans, Canadians, and international citizens, primarily those from the United States of America, access IPC-related content.

In 2022/2023, the [MRSA and You: What You Need to Know](#) was the most visited handout followed by [Childbirth: Group A Streptococcus Infections](#). While the overall number of visits to the patient care handout on [Multidrug-resistant Candida auris: Learning about multidrug-resistant Candida auris in healthcare facilities](#) was low, there was a large relative increase in the number of visits to this handout.