Hand Hygiene

Hand hygiene is a general term referring to practices that remove microorganisms from the hands and includes both the application of alcohol-based hand rub and handwashing using soap and water. Hand hygiene remains the single most effective measure to reduce microorganism transmission in healthcare and increasing hand hygiene compliance is essential. Significant work continues within AHS and Covenant Health to strengthen hand hygiene practices in healthcare.

Kudos – Westlock Healthcare Centre Nutrition and Food Services team embrace hand hygiene challenge

Nutrition and Food Services staff at the Westlock Healthcare Centre have been caught... clean handed. On a daily basis, the team delivers meal trays and provides meal service to more than 160 acute care patients and long-term care residents.

In North Zone, the commitment of Nutrition and Food Services staff to improve hand hygiene practices was acknowledged by the AHS Executive Leadership Team. Tracy Exnowski, Supervisor shared, “We deliver over 495 meals per day. Having clean hands helps us keep our patients safe as we proudly serve them each day.” Tracy challenged the staff to complete the Interactive Hand Hygiene Module in one month, which was an aggressive goal. Success was achieved with all 35 staff members completing the module in the specified month – a success for the team.

Tracy is now challenging others to do the same – “Taking this learning link module was not only practical, but also fun...we challenge other departments to do the same.”

AHS IPC Hand Hygiene Program

AHS continues to work towards achieving the target hand hygiene compliance of 90%. In 2018/19, the AHS hand hygiene compliance was 87%.

The AHS IPC Hand Hygiene Program consists of zone teams, each comprised of a project manager and coordinator(s), supported by members from the IPC Surveillance and Standards team. The IPC Hand Hygiene Program is a partnership between IPC and healthcare providers and involves clinical and non-clinical departments. In the past, this partnership was actualized through the Provincial Hand Hygiene Steering Committee and the zone hand hygiene committees. In 2018/19, following discussions with members, the Provincial Hand Hygiene Steering Committee was disbanded. The primary purpose of the committee to direct or provide guidance was no longer required as hand hygiene evolved from an improvement initiative to routine business in AHS. Alignment of provincial-level activities continues to be coordinated by the IPC Hand Hygiene Program with direct engagement at the local level through established committees.
Hand hygiene practices are guided by the AHS Hand Hygiene Policy (2017) and Hand Hygiene Procedure (2017). Monitoring hand hygiene compliance according to the 4 Moments for Hand Hygiene and offering healthcare providers feedback about compliance are considered essential elements of hand hygiene improvement initiatives.

The IPC Hand Hygiene Program uses a vendor-supported platform – Clean Hands™. Hand hygiene observation data are collected by trained reviewers and entered or uploaded into the Clean Hands portal via the Clean Hands iPad application or paper tool. The platform supports immediate feedback as users of the system can access real-time information on hand hygiene compliance through the Clean Hands portal.

**Increasing Awareness**

The IPC Hand Hygiene Program promotes activities that encourage awareness of hand hygiene and increase accountability and ownership of hand hygiene practices by AHS staff and physicians.

In support of the Canadian Patient Safety Institute’s Stop! Clean Your Hands Day! on May 04, 2018, numerous activities took place throughout AHS. The IPC Hand Hygiene Program released a video montage that highlighted frontline AHS staff, physicians, and volunteers describing why hygiene practices are so important to patient and healthcare provider safety. IPC thanks Dr. Verna Yiu, President and Chief Executive Officer, for her contributions to the video. As Dr. Yiu said “If it’s as easy as washing your hands, why would we not do that? Let’s rise to the challenge”.

In support of Global Handwashing Day (October 15, 2018) and Infection Control Week (October 15-19, 2018), the IPC Hand Hygiene Program hosted a Speaker’s Series.

- Carol Nieman, Director, Workplace Health and Safety, presented “Hand Health Guiding Practices”, which provided an overview of the practice document for hand health concerns.

- Joyce Erebor, Coordinator, IPC, presented “Hand Hygiene Review: Behavioral Modification to Improve Compliance and Facilitate Cultural Shift”, which won a Sage Products Best First Time Abstract Award at the Infection Prevention and Control Canada 2018 National Education Conference and provided information about how peer-based hand hygiene reviews can lead to sustained increases for hand hygiene compliance.

- Melody Cordoviz, Clinical Practice Coordinator, IPC, presented “Practical Magic: magic tricks for patients! For example, staff can perform magic simply by cleaning their hands following glove removal, because gloves are porous and not a substitute for hand hygiene.

An evaluation of the Speaker’s Series determined that most attendees found the presentations to be educational and relevant to their practice.

During Infection Control Week (October 15-19, 2018), AHS IPC received recognition from Infection Prevention and Control Canada via Twitter (Figure 3), for its resources on the Hand Hygiene webpages.
Increasing accountability and ownership

While members of the IPC Hand Hygiene Program perform hand hygiene reviews, one of the ways that the program increases accountability and ownership of hand hygiene practices is by recruiting and training healthcare providers as site-based reviewers. This is one of the improvement initiatives identified for leaders and managers under the Evaluation and Feedback strategy of the Hand Hygiene Toolkit: Helping Leaders Achieve Success.

The Hand Hygiene Reviewer Training that was redesigned in 2017/18 was launched on April 01, 2018, and was accompanied by a survey to assess whether reviewers were satisfied with the learning modules. The data suggested that most users were satisfied with how the training was delivered and agreed this was an effective format and delivery method for their learning style. There were indications that further improvements to the training could be made to streamline the process and that some site-based reviewers may benefit from a shortened approach to hand hygiene training.

The redesigned competency check for acute care was also released in 2018/19 with an evaluation scheduled for 2019/20. The Guide to Conduct Hand Hygiene Reviews, which supports site-based reviewers to perform reviews in a manner that is consistent and reliable, remains a heavily-referenced resource for both site-based reviewers and frontline staff wanting to learn more about hand hygiene compliance.

Site-based reviewers receive timely support from the IPC Hand Hygiene Program. Reviewers can request and receive assistance in person, via phone or Skype calls, and through a dedicated email address. Issues that require support range from troubleshooting technical issues to managing frontline engagement.
Clinical programs that are highly engaged in hand hygiene have ongoing working groups, supported by the IPC Hand Hygiene Program. These groups are active in clinical areas including emergency medical services, home care, public health, laboratory services, and operating rooms. They work to provide peer support, develop area-specific resources, and information updates. These groups also share their work with clinical programs that are newer to hand hygiene activity.

Listening to community audiology about hand hygiene

In 2018/19, hand hygiene reviews were introduced in community audiology in Calgary. Reviews in the first four months showed inconsistencies in compliance. Audiologists perceived the reviews as arbitrary and reported they were performing hand hygiene as they had been taught. Discussions about practices for hand hygiene and low-level disinfection of equipment revealed variability amongst the audiologists. Standardization of processes was determined to be necessary before hand hygiene reviews could be successfully implemented.

A quality improvement project, led by IPC and audiologists, was initiated using the AHS Improvement Way framework. The group mapped work tasks and identified logical opportunities to perform hand hygiene and low-level disinfection of equipment. These new processes were introduced with a two-month trial of hand hygiene reviews. The trial targets for hand hygiene compliance were exceeded. A debriefing session occurred one month later with generally positive feedback. An audiologist will now be trained as a site-based reviewer. The new processes are being fully adopted in Calgary and introduced to other community audiology locations in the province. This project showed there is benefit from thoroughly understanding clinical processes and offering stakeholders a collaborative voice in how their hand hygiene compliance is measured.

Covenant Health IPC Hand Hygiene Program

Covenant Health continues to work towards achieving the target hand hygiene compliance of 90%. In 2018/19, the Covenant Health hand hygiene compliance was 89%.

Each year, the Covenant Health IPC Hand Hygiene Program conducts hand hygiene observations during two defined time periods in spring and fall, using HandyAudit®. Ad hoc reviews may be performed but compliance reports are generated using the biannual data. This is different from the AHS IPC Hand Hygiene Program where observations are performed across the province on an ongoing basis, with quarterly reporting. Due to this and other differences in methodology AHS and Covenant Health data are not directly comparable.

Measures are in place to confirm hand hygiene data quality, including ongoing education and resource materials. Covenant Health IPC engage with facilities and reviewers to conduct inter-rater reliability testing of their auditing practices. This allows education to be targeted to those locations where variances are identified.
To improve data quality, a skills inventory was created in 2018/19 to engage and test the knowledge of reviewers. Feedback about the review process was solicited from frontline reviewers. A key area of focus in 2019/20 will be having reviewers follow up with staff about their hand hygiene practice post-observation. The goal is to connect reviewers with staff and focus on continuous improvement of the Hand Hygiene Program.

Covenant Health collaborated with Laboratory Services and Environmental Services to improve hand hygiene rates. Increases in hand hygiene compliance were noted after the addition of the clean and dirty object buttons in the hand hygiene platform - HandyAudit® - and reorganization of the Environmental Services carts to create a clear distinction between clean and dirty areas. Two poster presentations highlighting these improvements were displayed at the Infection Prevention and Control Canada 2018 National Education Conference.

Hand hygiene education is provided to every Covenant Health staff member upon hire. Thereafter, hand hygiene education is provided annually through Essential Education and delivered online via CLiC, which is the internal learning management system. The Covenant Health Hand Hygiene Newsletter is shared semi-annually, highlighting pertinent hand hygiene initiatives, reviewer training information, and hand hygiene success stories. Additional hand hygiene materials are available on the external and internal Covenant Health websites.

**Hand hygiene products and infrastructure**

Good hand hygiene practices are essential to reduce microorganism transmission. Installing alcohol-based hand rub dispensers at the point-of-care enhances adherence to hand hygiene. However, alcohol-based hand rub can pose a risk to patients and result in harm, including death, if ingested. The Alcohol-based Hand Rub Guidelines include an algorithm outlining factors that must be considered in dispenser placement. Factors include: Alberta Fire Code requirements; appropriate placement based on patient capacity to understand the negative effects of ingestion or misuse; and optimum placement to support hand hygiene for healthcare providers, patients, and visitors.

It was identified that the volume of alcohol-based hand rub in a majority of fire compartments in AHS healthcare facilities exceeded the maximum identified in the Alberta STANDATA (2014) Fire Code Variance on Fire Safety and Hand Hygiene in Healthcare Facilities. Noncompliance with the Alberta Fire Code represents a risk to the organization and to patient and staff safety. This risk must be balanced against the substantial risk to patient safety if adequate product availability is not maintained, as access to alcohol-based hand rub at the point-of-care is one of the most important measures to increase hand hygiene compliance and reduce preventable harm.

In 2018/19, a revised Fire Code variance for sprinklered facilities was released, allowing AHS to more easily comply with the code requirements and maintain or improve access to alcohol-based hand rub in priority locations. There were no changes to the Fire Code variance for non- or partially-sprinklered facilities. Concurrently, AHS contracted for lower volume, 650mL alcohol-based hand rub inserts to be placed inside existing dispensers.

In 2018/19, assessment and reporting tools were refreshed to reflect the Fire Code updates. Multi-disciplinary teams at AHS owned- and operated-facilities worked to review the placement of alcohol-based hand rub dispensers in clinical areas. A high-level overview of the progress by zone is submitted to the Clinical Operations Executive Committee each fiscal quarter. At the end of 2018/19, substantial progress was made with 77% (112/146) of sites being in compliance with the Alberta Fire Code for alcohol-based hand rub dispensers. Not all sites are complete at this time. For example, at the Walter C. Mackenzie campus, assessments and any changes to dispensers will be done while care units are decanted for the installation of Connect Care hardware, expected to be completed in 2019/20.