Hand Hygiene Toolkit

Germs are everywhere! They can get onto hands and items we touch during daily activities, including resident care. Cleaning your hands reduces both the spread of potentially deadly germs to residents and the risk of healthcare provider colonization (meaning, having the germ in or on the body without causing infection) or infection caused by germs acquired from the resident.[1]

Each year between 1 and 3 million residents of nursing homes or skilled nursing facilities develop healthcare acquired infections and as many as 380,000 people die of these infections.[2]

Hand hygiene is a critically important infection prevention measure in long-term care facilities. Hand hygiene means cleaning your hands by using either handwashing (washing hands with soap and water), antiseptic hand wash, antiseptic hand rub (i.e., alcohol-based hand sanitizer including foam or gel), or surgical hand antisepsis.[2]

The scientific evidence overwhelmingly demonstrates that appropriate hand hygiene is the single most effective action to stop the spread of infection, while integrated with other critical measures. Appropriate hand hygiene prevents up to 50% of avoidable infections acquired during health care delivery, including those affecting the health work force.[3] Studies show that some healthcare providers practice hand hygiene less than half of the times they should.[4]

Investing in hand hygiene yields huge returns. Implementation of hand hygiene policies can generate economic savings averaging 16 times the cost of their implementation.[3]

<u>CDC recommended practices for hand hygiene[2]</u>

- Hand washing
    - Wash hands with soap and water whenever they are visibly dirty, before eating, and after using the restroom.
    - During Routine Resident Care:
        - When hands are visibly soiled
        - After caring for a resident with known or suspected infectious diarrhea (i.e., Norovirus)
        - After known or suspected exposure to spores (i.e., C difficile)

- Alcohol-Based Hand Rub
    - An alcohol-based hand sanitizer (at least 60% alcohol content) is the preferred method for cleaning hands when they are not visibly dirty. Use it:
        - Immediately before touching a resident
        - Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices
        - Before moving from work on a soiled body site to a clean body site on the same resident
        - After touching a resident or the resident's immediate environment
        - After contact with blood, body fluids or contaminated surfaces
        - Immediately after glove removal
    - Technique matters, use the right amount of alcohol-based hand sanitizer product to clean your hands (see manufacturer's instructions)

        - How well the alcohol-based hand sanitizer works depends on the amount applied to the hands
        - Always check the expiration date of the product prior to using
    - These areas are most often missed by healthcare providers when using alcohol-based hand sanitizer:
        - Thumbs
        - Fingertips
        - Between fingers

- It is important to maintain the health of your skin
    - Lotions and creams can prevent and decrease skin dryness that happens from cleaning your hands
        - Use only hand lotions approved by your healthcare facility because they won't interfere with hand sanitizing products

- Fingernails
    - Germs can live under artificial fingernails both before and after using an alcohol-based hand sanitizer and handwashing
    - Keep natural nail tips less than ¼ inch long
    - Some studies have shown that skin underneath rings contains more germs than comparable areas of skin on fingers without rings
        - Further studies are needed to determine if wearing rings results in an increased spread of potentially deadly germs

- Wearing gloves is never a substitute for hand hygiene
    - If a task requires gloves, perform hand hygiene prior to donning gloves, before touching the resident or the resident environment.
    - Perform hand hygiene immediately after removing gloves
    - Carefully remove gloves to prevent hand contamination

References

1. CDC Hand Sanitizer Use Out and About, Last reviewed: June 3, 2021

https://www.cdc.gov/handwashing/pdf/HandSanitizer-p.pdf , Accessed 2-3-24

2. CDC Hand Hygiene in Healthcare Settings, Healthcare Providers, Last Reviewed: January 8, 2021, https://www.cdc.gov/handhygiene/providers/index.html , Accessed 2-3-24

3. World Health Organization, Key Facts and Figures, World Hand Hygiene Day 2021,

https://www.who.int/campaigns/world-hand-hygiene-day/2021/key-facts-and-figures

Accessed 2-4-24

4. CDC Hand Hygiene in Healthcare Settings, Show Me the Science, Last Reviewed: November 21, 2023, https://www.cdc.gov/handhygiene/science/index.html , Accessed 2-3-2024

Communication & promotional materials

Hand Hygiene Programs involve all areas and staff of the facility. It is important to communicate the expectations regarding hand hygiene. The first video in the CDC's Hand Hygiene in Healthcare Settings Video Series is ENGAGE [Video: 5:44].[1] This video will share ideas on how the facility can engage staff in the program to reach established goals.

The CDC provides promotional materials that can be utilized to communicate the need for hand hygiene and encourage compliance.[2]

- My Clean Hands Count For My Patients-Poster
- Long Term Care Facilities, Clean Hands Count Brochure (print only)
- Clean Hands Count Fact Sheet
- Clean Hands Count Provider Fact Sheet (print only) – Spanish
- Clean Hands Count Provider Brochure (print only) - Spanish

The promotional materials can be reviewed and discussed during meetings with staff, unit huddles, and if available, shared with staff through email or text messages. During any communication with staff, time should be allotted for answering questions and discussing any concerns or barriers.

Talking points with staff should include:

- What is hand hygiene and why is it important
- When and how hand hygiene should be performed
- A demonstration and return demonstration for competency – be sure to document
- How to speak with their residents and any families or visitors about hand hygiene.

Talking points with residents/families or visitors should include:

- Why performing hand hygiene is important
- When hand hygiene should be performed
- If time allows, demonstrating how to use alcohol-based hand rub or perform hand washing
- Letting residents and others know it is ok to ask staff about hand hygiene and even request staff to perform hand hygiene[2]

Residents should be encouraged to participate in the Hand Hygiene Program. Some promotional materials to engage residents include:

- World Health Organization – Hand Hygiene Promotion in Healthcare – Tips for Patients
- World Health Organization – Hand Hygiene and Antibiotic Resistance
- World Health Organization - Tips for implementing a successful patient participation programme

As with any initiative, facility leadership support is critical for success. The World Health Organization has a template letter that can be sent to leadership explaining the hand hygiene initiative and to gain their support.

References:

1. CDC Hand Hygiene in Healthcare Settings Video Series, Last Reviewed: May 1, 2023

https://www.cdc.gov/handhygiene/providers/training/index.html , Accessed 2-3-24

2. CDC Hand Hygiene in Healthcare Settings, Promotional Materials, Last reviewed June 26, 2019 https://www.cdc.gov/handhygiene/campaign/promotional.html#anchor_1555101709, Accessed 2-3-24

Assessment

When beginning a hand hygiene program or developing a performance improvement plan, it is important to understand current hand hygiene practices in the facility.

Infection Preventionists can evaluate current facility practices through a variety of methods.

- Rounding – walking through the nursing units, kitchen, laundry and other areas of the facility and observing staff infection prevention and control activities. Based on the findings, the IP can provide just-in-time training to the staff.
- Use of shift coaches - shift coaches are usually a member of the nursing staff that have an interest in infection prevention and control and want to help improve resident care. Shift coaches are trained by and meet regularly with the IP to discuss what they are seeing and how to make improvements. If interested in the shift coach program (ICAN), visit the website: sites.brown.edu/ican
- Secret Shoppers-can be anyone in the facility, including volunteers. Secret shoppers are trained by the IP on how to perform and document infection control observations. By utilizing others in the facility, rather than just the IP to make observations, a more well-rounded picture of staff compliance can be made.
- Use of tools – tools help to ensure the data is collected in the same way each time and provide for a more efficient method of documentation.
    - The CDC provides an Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings-hand hygiene tool.[1] This tool will aid in the review of a healthcare facility's hand hygiene practices and policies and environmental and healthcare personnel observations.

References

1. CDC Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings- Module 2: Hand Hygiene Facilitator Guide, Last Reviewed 11/15/2022

https://www.cdc.gov/infectioncontrol/pdf/icar/IPC-mod2-hand-hygiene-508.pdf Accessed 2-3-24

Planning

When planning a hand hygiene program, think holistically about what needs to be considered. For example:

- Who needs to be informed about the practice-all departments, residents, families/responsible parties, consultants, medical providers, students
- Supplies – current inventory of alcohol-based hand rub (ABHR) and ABHR dispensers, soap and soap dispensers, paper towels, and hand lotions that are compatible with soap and ABHR. Will any additional supplies need to be ordered?
- Location of ABHR and soap dispensers and sinks, and paper towels
- Who can act as a champion for hand hygiene in the facility? The champion(s) encourage and work with staff to help make hand hygiene a standard practice. Any staff member that is interested and willing to work with others in the facility can be considered.
- What are the current barriers to staff performance of hand hygiene?

Utilizing your facility's QAPI committee can be very beneficial when planning to implement a hand hygiene program. Working with the full committee, or a sub-committee, will help to gather input from other team members across disciplines on preparing for, implementing, and evaluating the program in the facility. The CMS QAPI tools[2] below can assist your committee in organizing and developing the implementation plan.

- Worksheet to Create a PIP Charter- clearly establishes the goals, scope, timing, milestones, and team roles and responsibilities for an Improvement Project (PIP).
    - https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/PIPCharterWkshtdebedits.pdf
- PIP Launch Checklist: Helpful hints for project leaders, managers, and coordinators - use this check list to make sure you have everything you need in place when you start a project. Ensuring you have these steps in place can help you save time and confusion down the road.
    - https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/PIPLaunchChecklistdebedits.pdf

• Plan-Do-Study-Act (PDSA) Cycle Template- used to plan and document your progress with tests of change conducted as part of the performance improvement project.

- https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/PDSACycledebedits.pdf

• Goal Setting Worksheet - Goal setting is important for any measurement related to performance improvement

- https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/QAPIGoalSetting.pdf

• Brainstorming, Affinity Grouping, and Multi-Voting Tool-approaches for generating, categorizing, and choosing among ideas from a group of people. Using these techniques encourages every person within the group to contribute, instead of just one or two. They spark creativity in group members as they listen to the ideas of others and generate a substantial list of ideas, rather than just the few things that first come to mind. Finally, the techniques allow a group of people to choose among ideas or options thoughtfully.

- https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/BrainAffinGrpMultVot.pdf

References:

. CMS Process Tool Framework, Updated 9-6-23

https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/processtoolframework.pdf

Accessed 1-25-24

Training & Coaching or Transfer of Learning (TOL) approaches & tools

Hand hygiene training will not be a one-time occurrence. The team must plan for initial and refresher training. A variety of teaching techniques can be applied, such as:

- Just-in-time, On-the-job
- On unit training sessions – training content can be broken into multiple sessions
- Accessible information when needed (i.e., posters on hand washing and use of alcohol-based hand rub (ABHR) techniques)
- Mobile training – carts, iPad for video viewing
- Active – return demonstration

When training on hand hygiene, the following key points should be included:

- Define hand hygiene
- Explain why performing hand hygiene is important

- Discuss when hand washing should be performed and when ABHR should be utilized
- Provide active demonstration of both techniques and have staff perform return demonstrations for competency – be sure to document

Luckily, when it comes to educating staff on hand hygiene, there is no need to reinvent the wheel. The training resources below can be utilized by the team to train staff.

The Hand Hygiene in Healthcare Settings Video Series provides 4 short videos to help build a successful hand hygiene program. The video series describes foundations for engaging all healthcare personnel in hand hygiene, provides best practice techniques and practical tips for educating staff, exemplifies how to create an environment of accountability amongst personnel, and shows how to use data for action as a basis for continuous quality improvement. All 4 videos are appropriate for multiple audiences and can be used for training or education in healthcare settings.[1]

• ENGAGE [Video: 5:44] The Foundation of a Hand Hygiene Program – engaging all healthcare personnel for a successful hand hygiene program.

• EDUCATE [Video: 5:05] Developing Knowledge and Skill in Hand Hygiene – best practices and helpful tips for educating staff on hand hygiene.

• EXECUTE [Video: 5:53] Mindfulness and Team Accountability with Hand Hygiene – creating an environment of accountability among personnel in a hand hygiene program.

• EVALUATE [Video: 4:27] Using Hand Hygiene Data for Action – using data for continuous quality improvement in hand hygiene programs.

The CDC also provides:

- Short interactive training videos for all staff on hand hygiene
  - Education Courses | Hand Hygiene | CDC
    - https://www.cdc.gov/handhygiene/providers/training/index.html
  - Clean Hands Count – video
    - https://www.cdc.gov/handhygiene/video/CHC-Final-SD-360.mp4

- Pocket Card – Alcohol-Based Hand Sanitizer (ABHS)
  - https://www.cdc.gov/handhygiene/pdfs/ABHS-PocketCards-P.pdf

- Frequently Asked Questions – Show Me the Science
  - https://www.cdc.gov/handhygiene/science/index.html

World Health Organization, Your 5 Moments of Hand Hygiene Poster, Last reviewed May 2009

- https://cdn.who.int/media/docs/default-source/integrated-health-services-(ihs)/infection-prevention-and-control/your-5-moments-for-hand-hygiene-poster.pdf?sfvrsn=83e2fb0e_16

Implementation

While implementation of a hand hygiene program for all staff is the goal, this may not initially be feasible for your facility. If, during the development of your implementation plan, challenges arise for facility-wide implementation, you may choose to implement the hand hygiene program on a unit or wing first, learn what worked best for increasing compliance on that unit, and then carry those best practices to subsequent units.

Below are some tools that can assist with implementation[2]:

- Plan-Do-Study-Act (PDSA) Cycle Template- plan and document your progress with tests of change conducted as part of chartered performance improvement projects.
    - https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/PDSACycledebedits.pdf

- Sustainability Decision Guide helps teams determine if the interventions and changes they are making are sustainable. This guide will help identify why interventions may not be sustainable, and therefore need to be reconsidered.
    - https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/downloads/SustainDecisGdedebedits.pdf

Role of Medical Director to Help Promote Practices

When initiating any changes affecting resident care, the medical director should be consulted and involved. After all, the medical director serves as the physician responsible for the overall care and clinical practice carried out at the facility. In this role, the medical director can assist with:

- Developing and managing quality initiatives
- Providing information that helps others (including facility staff, practitioners, and those in the community) understand and provide care
- Making recommendations and approving relevant policies and procedures
- Developing and disseminating key information and education[2]. This could be useful for informing both in-house and community medical providers of the implementation of the hand hygiene program.[3]

References

1. CDC Hand Hygiene in Healthcare Settings Video Series, Last Reviewed: May 1, 2023

https://www.cdc.gov/handhygiene/providers/training/index.html , Accessed 2-3-24

2. CMS Process Tool Framework, Updated 9-6-23

https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/processtoolframework.pdf

Accessed 1-25-24

3. The Society for Post-Acute and Long-Term Care Medicine, *THE NURSING HOME MEDICAL DIRECTOR: LEADER & MANAGER*, March 1, 2011.

https://paltc.org/amda-white-papers-and-resolution-position-statements/nursing-home-medical-director-leader-manager
Accessed 1-25-24

Evaluation Tools

Once the hand hygiene program has been implemented, it is time to evaluate the effectiveness of the program and determine if any corrective actions must be taken.

When using process surveillance to monitor hand hygiene adherence, observations should be scheduled at different times on different days and should include a variety of staff being observed to get an accurate picture of compliance.

Be sure the method of data collection is consistent. For example, utilize the same data collection tools and conduct the same number of observations each time. Ensure that the person(s) collecting the data are competent in the practices being observed and fully understand what to observe and how to use the data collection tools.

As with any data collected, to be useful, it must be analyzed and then acted upon as necessary. Look for trends in the data. Is the data showing improvement in compliance, no change, or a decrease. Are there certain disciplines, a time of day or tasks that seem to score the lowest? Consult with staff to determine the barriers to successful practice. Are the barriers operational – missing inadequate supplies (soap, ABHR, paper towels), inappropriate location of supplies, or educational-staff have a true lack or misunderstanding of hand hygiene. The resulting information should be shared with administrative and frontline staff and the QAPI Committee. The QAPI Committee can provide feedback on the information provided and assist in development of the corrective action plan. Be sure to document your data, analysis, and any action plan(s).

One tool that can assist with evaluation of the program is the CDC's EVALUATE [Video: 4:27] Using Hand Hygiene Data for Action[1] which describes using data for continuous quality improvement in hand hygiene programs.

Another valuable evaluation tool is the Agency for Healthcare Research and Quality (AHRQ) Resource: Hand Hygiene Tracking Tool and User Guide.[1] This pre-programmed Excel workbook compiles hand hygiene observational data by individual, shift, position, location, and department to help staff regularly review opportunities for hand hygiene performance improvement. The user guide gives nursing home staff detailed step-by-step instructions with visuals to record, analyze, and review observational audit data using the tracking tool itself.

References

1. CDC Hand Hygiene in Healthcare Settings Video Series, Last Reviewed: May 1, 2023

https://www.cdc.gov/handhygiene/providers/training/index.html , Accessed 2-3-24

2. Agency for Healthcare Research and Quality (AHRQ) Resource: Hand Hygiene Tracking Tool and User Guide, Last Reviewed July 1, 2021

https://www.ahrq.gov/nursing-home/resources/hand-hygiene-tracking-tool.htmlAccessed 2-3-24

Policy and Procedures

CMS requires nursing homes to have written standards, policies, and procedures for the Infection Prevention and Control Program (IPCP). Policies and procedures should incorporate current standards of practice based on nationally recognized, evidence-based guidelines.[1]

When creating a policy and procedure for Enhanced Barrier Precautions, here are some guidelines to follow:

- Have an appropriate title
- Include the date of last revision or review
- State the date that the policy or procedure takes effect
- List name and signature of the individual or committee responsible for review or approval (i.e.: IPC Committee). Policies and procedures should be reviewed annually and revised when needed (e.g., when services or products change).
- All guidelines, standards, or other resources used to develop the policy and/or procedure should be identified and referenced.
- When applicable, key terms used in the policy and procedure should be defined. This can be accomplished at the time they are used or by including a glossary at the start or end of the document.[2]

Sample Hand Hygiene Policy and Procedure

- Washington State Department of Health – Hand Hygiene Policy and Procedure
    - https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs//505144.pdf

References

1. CMS State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities (Rev. 211, 02-03-23) – §483.80 Infection Control

https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf Accessed 2-4-24

2. Centers for Disease Control and Prevention (CDC). Nursing Home Infection Preventionist Training Course. CE Number: WB4448. Origination Date: October 1, 2021. October 1, 2023. Module 1 Infection Prevention and Control Program. https://www.train.org/cdctrain/training_plan/3814. Accessed 1-26-24.

Regulations

- CMS State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities (Rev. 211, 02-03-23) – §483.80 Infection Control https://www.cms.gov/medicare/provider-enrollment-and-certification/guidanceforlawsandregulations/downloads/appendix-pp-state-operations-manual.pdf Accessed 2-4-24

- OSHA - Occupational Exposure to Bloodborne Pathogens, 29 CFR 1910.1030, sections (d)(2)(iii) through (d)(2) (vi) discuss employer and employee responsibilities in relation to hand hygiene
    - https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030

1) **Reporting requirements**
    a. When and how to report to local, state or federal agencies

    There are no reporting requirements related to hand hygiene