



<p>Team Name: Staff Development, Infection Prevention & Control</p> <p>Team Lead: Director - Staff Development, Infection Prevention & Control</p> <p>Approved by: Regional Lead - Acute Care & Chief Nursing Officer</p>	<p>Reference Number: CLI.8011.PL.001</p> <p>Program Area: Infection Prevention & Control</p> <p>Policy Section: Infection Prevention & Control</p>
<p>Issue Date: August 21, 2014</p> <p>Review Date:</p> <p>Revision Date: May 5, 2022</p>	<p>Subject: Hand Hygiene</p>

POLICY SUBJECT:

Hand Hygiene

PURPOSE:

Hand Hygiene is a critical component of an effective Infection Prevention and Control program.

BOARD POLICY REFERENCE:

- Executive Limitation (EL-2) Treatment of Clients
- Executive Limitation (EL-3) Treatment of Staff
- Executive Limitation (EL-7) Asset Protection & Risk Management

POLICY:

Southern Health-Santé Sud (SH-SS) supports, promotes and follows hand hygiene practices which enhance the health and safety of health care workers (HCWs), clients and visitors within all facilities and programs. SH-SS further supports that proper hand hygiene is the single most important practice in reducing the transmission of microorganisms, and directly contributes to client safety by preventing infections.

SH-SS recognizes that hand hygiene is a shared responsibility for HCWs, clients and visitors and empowers all to discuss and promote good hand hygiene practices in accordance with the 4 Moments for Hand Hygiene. SH-SS requires all facilities/programs to complete hand hygiene auditing Hand hygiene compliance rates are analyzed and reported as a performance measure for continuous quality improvement.

Adherence to this policy is expected of all SH-SS employees, physicians, students and volunteers.

DEFINITIONS:

Alcohol-Based Hand Rub (ABHR): A liquid, gel or foam formulation that contains 70-90% alcohol, which is used to reduce the number of microorganisms on hands in clinical situations when the hands are not visibly soiled. ABHRs contain emollients to reduce skin irritation.

Antimicrobial/Antiseptic soap: Soap that contains an antimicrobial agent at a concentration sufficient to inactivate microorganisms and/or temporarily suppress their growth.

Body fluids: Any blood or body fluid/tissue, vaginal secretions, seminal secretions, cerebral spinal fluid, synovial fluid.

Clean/Aseptic procedures: Tasks involving direct care of a client, which may be invasive in nature providing opportunity for harmful microorganisms to enter the individual's body. Examples include but are not limited to: administering medication via any route, initiating an intravenous site, assessing blood glucose, venipuncture, feeding an individual, and wound care procedures.

Client: An individual who accesses and/or receives health care related services from a SH-SS facility or program. Clients may be patients in an acute care setting, residents in a personal care home or clients in a community program.

Client environment: The space that contains the client, as well as the immediate surroundings and inanimate surfaces in contact with the client (e.g. bed rails, bedside tables, infusion tubing, other medical equipment).

Direct care: Physical contact with a client or client's environment (e.g. bathing, turning, etc.).

Food handling: Refers to preparing, providing, serving, storing or transporting any food that is intended for consumption.

Hand hygiene: A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using an ABHR or soap and running water.

Hand hygiene indication: The reason why hand hygiene is necessary at a given moment.

Hand hygiene moment: The point(s) in an activity at which hand hygiene is performed. There may be several hand hygiene moments in a single care sequence or activity. There are four essential moments for hand hygiene in health care – before initial client/client environment contact, before aseptic procedure, after body fluid exposure risk and after client/client environment contact.

Hand hygiene opportunity: Terminology used when performing an audit of hand hygiene. A hand hygiene opportunity is an observed indication for hand hygiene. Each opportunity must correspond to an action. Several indications for hand hygiene may come together to create an opportunity.

Hand washing: The use of running water and soap to physically remove soil and transient microorganisms from the hands with mechanical friction

Hand washing sink or designated hand washing sink: A sink used only for hand washing.

Hand wipes: Single-use, disposable towelette that is pre-moistened, usually with a skin antiseptic (e.g. alcohol), that is used to physically remove visible soil from hands in situations where running water is not available.

Health care-associated infection (HAI): Infections that are transmitted within a health care setting during the provision of health care, also referred to as nosocomial.

Health Care Worker (HCW): An employee (including contracted individuals, students and volunteers) of SH-SS who provides direct care or indirect, non-contact care as a result of their duties/tasks of their position. HCW spans the continuum of services/care that a client may receive from a SH-SS facility or program.

Personal Protective Equipment (PPE): Clothing or equipment worn by staff for protection against hazards. PPE can include, but is not limited to gloves, eye protection, masks, and gowns, etc.

Plain soap: Basic detergent products that do not contain antimicrobial agents or that contain very low concentrations of antimicrobial agents that are present only as preservatives.

Point-of-care: Refers to the place where a client receives health care from a HCW or other staff. Point-of-care incorporates three elements that occur together: the client, the HCW and an interaction that could result in transmission of an infectious agent.

IMPORTANT POINTS TO CONSIDER:

- ABHR is recommended for performing hand hygiene when hands are not visibly soiled.
- Plain soap and water is recommended when hands are visibly soiled with food, dirt or blood and body fluids, and following glove removal when caring for patients with diarrhea and/or vomiting.
- Antimicrobial soap and water is recommended only in limited circumstances and should not be used for routine hand hygiene.

PROCEDURE:

ELEMENTS

1. Hand Hygiene Indications and Moments

The 4 moments for hand hygiene refers to times where the risk of transmission of microorganisms via the hands is the highest. SH-SS HCWs shall perform hand hygiene according to the following 4 moments for hand hygiene to prevent the transmission of microorganisms and reduce the spread of health care-associated infections.

- **Moment One:** Before initial contact with a client or client's environment, including but not limited to: entering a client's room and providing client care
- **Moment Two:** Before a clean or aseptic procedure, including but not limited to:
 - Putting on (donning) personal protective equipment (PPE), including gloves
 - Wound care
 - Handling intravenous devices
 - Insertion of central venous catheters

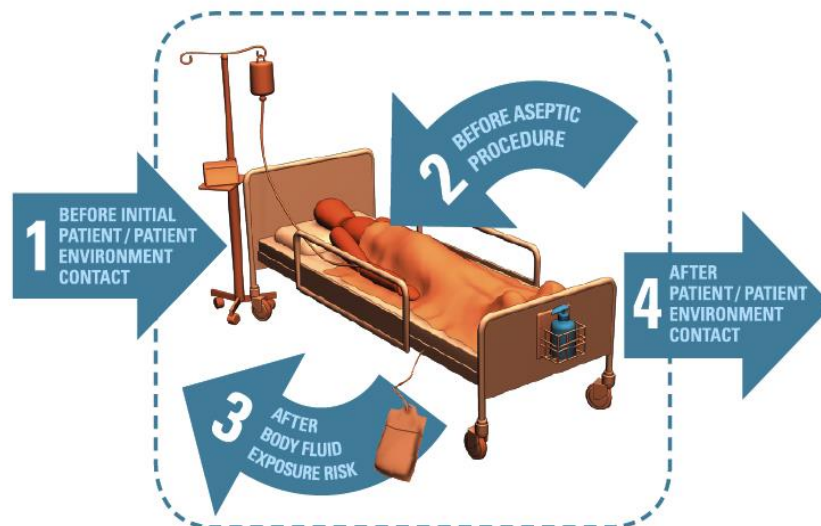
- Food handling
- Preparing medications
- **Moment Three:** After exposure or risk of exposure to blood and/or body fluids, including but not limited to: when hands are visibly soiled and following removal of gloves
- **Moment Four:** After contact with a client or client's environment, including but not limited to: removing (doffing) PPE, including gloves, leaving a client's environment and after handling client care equipment

Other important times to perform hand hygiene include:

- After blowing your nose
- After using the washroom
- Before and after shifts and breaks
- Before and after eating

HCWs, physicians, students and volunteers are responsible for teaching and reminding clients, family members and visitors about the importance of and proper technique for effective hand hygiene.

HCWs should encourage and assist clients with hand hygiene as necessary (e.g., before meals, after using washroom).



Your Moments for Hand Hygiene: Image source: Just Clean Your Hands - Public Health Ontario.

2. Hand Hygiene Product Selection

Hand hygiene products are selected by a multidisciplinary regional team to enhance acceptance and use of hand hygiene agents. The multidisciplinary team and end users are involved in product placement decisions so that products are placed in the pattern of workflow, at point-of-care and in areas convenient to use. Liquid hand hygiene product dispensers are clearly labeled and easily distinguishable from each other. Liquid products

are dispensed from a non-refillable container.

Hand hygiene products must not interfere with glove integrity or with the action of other hand hygiene or hand care products. Use only SH-SS approved hand hygiene products (e.g., ABHR, soap and hand lotion) while at work. Hand hygiene products not approved by SH-SS may lead to skin irritation, contamination, and decreased integrity of gloves. Staff should report skin irritation concerns to their supervisor and consult Occupational Health/designate if skin integrity is an issue.

Currently, there is no evidence for the efficacy of non-alcohol based, waterless antiseptic agents in clinical areas. Non-alcohol based products have a quaternary ammonium compound (QUAT) as the active ingredient, which has been shown not to be as effective against most microorganisms as ABHR or soap and water.

2.1. Alcohol-based hand rub (ABHR):

- The preferred product for performing hand hygiene in health care settings.
- More effective than washing hands with soap and water when hands are not visibly soiled.
- Hand hygiene with correctly applied ABHR provides a rapid kill of most transient organisms.
- Contains emollients to reduce skin irritation.
- Efficacy of ABHR depends on the consistency of the product (e.g. gel, foam, liquid), the concentration of the product (e.g. percentage of alcohol), the amount of product used, the time spent rubbing, and the hand surface rubbed.
- Optimal concentrations of ABHRs in health care settings range from 70-90% alcohol.

2.2. Plain soap and water:

- Emulsifies dirt and organic substances (e.g., blood, mucous), which are then flushed away with rinsing.
- Recommended use as follows:
 - When hands are visibly soiled with food, dirt or blood and body fluids;
 - Following glove removal when caring for clients with diarrhea and/or vomiting;
 - Prior to, during and after food handling; and
 - Immediately after using washroom facilities.

Note: Bar soaps are not acceptable in health care settings.

- Exception: Personal single client use bar soaps, stored to allow drainage and drying and discarded on client discharge.

2.3. Antimicrobial (antiseptic) soap and water:

- Recommended to use only before surgical and/or prolonged invasive procedures.
- Follow procedure for Surgical Hand Scrub in Elsevier; shall not be used for routine hand hygiene.
- Disadvantages of antimicrobial soap include:

- Antimicrobial soaps are harsher on hands than plain soaps and frequent use may result in skin breakdown.
- Frequent use of antimicrobial soap may lead to antibiotic resistance.
- Antimicrobial soap dispenser locations will be determined by SH-SS representatives, and Infection Prevention and Control based on clinical need.

2.4. Facility provided hand lotion should be used as a supplement to the moisturizer contained in the ABHR. SH-SS provided hand lotion will not impair the disinfectant activity of ABHR. Non-SH-SS provided hand lotions may cause chemical incompatibilities and lead to the transmission of microorganisms and/or skin integrity issues. Over-exposure to multiple types of chemicals can increase the risk of dermatitis.

2.5. Hand wipes/towelettes can be used for removing visible soil from hands when running water is not available. ABHR shall be used following the use of hand wipes/towelettes. Hands shall be washed with plain soap once running water is available.

2.6. During a boil water advisory, tap water can be used for removing visible soil from hands if necessary. Hand hygiene using ABHR shall be completed prior to performing other tasks.

3. Procedure for the Use of Alcohol-Based Hand Rub (ABHR):

- Ensure hands are dry and not visibly soiled.
- Roll up long sleeves and push up any wrist accessories (e.g. watch, medical alert bracelet).
- Apply a dime-sized amount (2-3 mL or 2-3 pumps) of product so that all surfaces of the hands are covered and will remain wet for at least 15 to 20 seconds.
- Rub product over all surfaces of the hands and wrists, including:
 - Rub palm to palm,
 - Rub fingertips of each hand in opposite palm,
 - Rub between and around fingers (and under ring if one is worn),
 - Rub each thumb clasped in opposite hand,
 - Rub back of each hand with opposite palm.
- Continue rubbing ABHR until hands are completely dry.
- Periodically apply a SH-SS-approved hand lotion to assist in maintaining skin integrity.
- Ensure hands are dry before donning gloves, performing another task or touching client/client environment.
- Refer to SH-SS Hand Hygiene “How to Hand Rub” and “How to Hand Wash”– Bilingual posters (CLI.8011.PL.001.SD.02)

4. Procedure for Hand Washing Using Soap and Water:

- Roll up long sleeves and push up any wrist accessories (e.g. watch, medical alert bracelet).
- Wet hands under warm running water (avoid hot water which can irritate skin).

- Apply enough soap and lather thoroughly so that all surfaces of the hands are covered (e.g. two to three pumps).
- Vigorously rub soap over all surfaces of the hands and wrists, including:
 - Rub palm to palm,
 - Rub fingertips of each hand in opposite palm,
 - Rub between and around fingers (and under ring if one is worn),
 - Rub each thumb clasped in opposite hand,
 - Rub back of each hand with opposite palm.
- Rinse hands thoroughly under warm running water.
- Pat hands dry with disposable paper towel.
- Electric hand dryers should not be used in clinical areas.
- Use paper towels to turn off faucets and to open door.
- Discard paper towel.
- Apply SH-SS approved hand lotion periodically to assist in maintaining skin integrity.
- Ensure hands are dry before donning gloves.
- Refer to SH-SS Hand Hygiene “How to Hand Rub” and “How to Hand Wash”
 - Bilingual posters (CLI.8011.PL.001.SD.02)

5. Hand Hygiene Product Considerations

- Assess workflow patterns and conduct a risk assessment of the population being served prior to determining appropriate placement of hand hygiene products as applicable.
 - Determine appropriate placement of ABHR products in areas where clients may not have the capacity to understand the negative effects of ingestion or misuse (e.g. units with cognitively-impaired individuals and care spaces inhabited by clients assessed as at risk to ingest). Placement should be assessed by an interdisciplinary team familiar with the facility/program and client population.
- Point-of-care products should be available at the required moment, without leaving the client care environment. This enables HCWs to follow the 4 Moments for Hand Hygiene.
 - Ensure ABHR products and/or sinks for hand washing are available as close as possible to the point-of-care (within arm’s reach of where care is provided).
 - In some areas, staff may need to carry ABHR for their own use when dispensers are not available (e.g. community settings). Individual-use ABHR should be of sufficient volume to last through a shift (e.g. 50 mL), must be disposable and not be topped-up.
- Limit the use of portable ABHR bottle dispensers to staff only areas.
- Ensure wall-mounted ABHR dispensers are installed as per the Manitoba Fire Code and in compliance with Workplace Hazardous Materials Information System (WHMIS), away from electrical outlets, switches, and power sources as per Hand Hygiene Considerations in Facility Design (CLI.8011.PL.001.SD.05).
- Post approved hand hygiene signage in public areas of facilities/programs, including near ABHR dispensers and within public washrooms.
- Alert managers/supervisors when areas for improvement are observed (e.g. placement of ABHR in a particular location).
- Hand hygiene products are clearly labelled, used prior to the expiry date and discarded appropriately by the designated staff.

- Replace hand hygiene products when emptied or expired. Adding to/topping up an existing product is an unacceptable practice.
- Hand hygiene sinks are used for hand washing only, and not for equipment cleaning, blood, body fluid, waste disposal or food preparation.
- Refer to Hand Hygiene Considerations in Facility Design (CLI.8011.PL.001.SD.05) for guidance regarding hand washing sinks placement and design criteria, hand drying recommendations and ABHR dispenser placement. Every opportunity throughout the region, i.e., renovations and new construction projects, must be taken to improve adherence with published Canadian Standards Association (CSA) health care facility standards.

6. Hand Care and Barriers to Effective Hand Hygiene

- Condition of the hands can influence the effectiveness of hand hygiene. Intact skin is the body's first line of defense against bacteria. Therefore, careful attention to hand care is an essential part of the hand hygiene program. The presence of dermatitis, cracks, cuts or abrasions can trap bacteria and compromise hand hygiene.
- HCWs should strive to maintain hand skin integrity to enable effective hand hygiene.
 - Hand moisturizing skin care products are used to minimize the occurrence of irritant contact dermatitis associated with hand hygiene.
 - Refer to General Hand Care Instructions Staff Handout (CLI.8011.PL.001.SD.06) for tips on maintaining healthy hands.
- Long nails are difficult to clean, can pierce gloves and harbor more microorganisms than short nails. Keep natural nails clean and short to enable effective hand hygiene.
- Artificial nails, nail enhancements, nail adornments and chipped nail polish are not to be worn by HCWs who provide direct client care.
 - Artificial nails or nail enhancements, including acrylic nails, harbor more microorganisms and are more difficult to clean than natural nails and have been implicated in the transfer of microorganisms and in outbreaks.
 - Nail polish, if worn, must be fresh and free of cracks or chips. Chipped nail polish can harbor microorganisms that are not removed by hand washing.
 - Gel polish has been shown to damage nails, resulting in nail weakness, brittleness and thinning, putting nails at increased risk for breaking. Nail art (adding decorative paint effects to nails) has been shown to be associated with outbreaks of infection.
- Hand jewelry, other than a plain band, should not be worn by those who provide direct client care.
 - Hand and arm jewelry hinder hand hygiene. Rings increase the number of microorganisms present on hands and increase the risk of tears in gloves. Arm jewelry, including watches, should not interfere with or become wet when performing hand hygiene.
- Long sleeves should not interfere with, or become wet when performing hand hygiene.
- HCWs wearing casts, dressings, or splints that interfere with proper hand hygiene or have skin conditions that affect skin integrity should inform their supervisor and consult Occupational Health/designate to assist in recommendations for proper hand hygiene practices within the clinical setting.
 - Refer to Occupational Health Infectious Disease and Upper Extremity Supportive

Device Work Restrictions (CLI.8011.SG.004).

7. Hand Hygiene Education

An effective hand hygiene program requires ongoing education of all employees, physicians, students, volunteers and visitors about the importance of hand hygiene in a health care setting.

- Managers:
 - Monitor the completion of HCW required annual hand hygiene education
 - Ensure SH-SS approved procedures for how to use ABHR or perform hand washing with soap and water (as applicable) are posted within their facilities/programs.
- General education includes:
 - Indications for hand hygiene;
 - Factors that influence hand hygiene;
 - Hand hygiene products;
 - Hand hygiene techniques;
 - Hand care to promote skin integrity.
- Refer to Infection Prevention & Control Hand Hygiene Poster Placement Guidelines (CLI.8011.PL.001.SD.07) for recommended hand hygiene poster placement.

7.1. Education for Health Care Workers

- Valid information and knowledge on hand hygiene influences good practices among health care providers. All health care workers receive hand hygiene education upon initial orientation and on an annual basis. Education includes the clinical indications/moments for hand hygiene during patient care based on 4 Moments for Hand Hygiene.
- Best Practice Resources on Hand Hygiene are available:
 - Regional self-learning resources (HPS)
 - Provincial Learning Management System ([LMS](#))

7.2. Education for Clients and Visitors

- Clients and their loved ones can play a role in asking and reminding healthcare providers to clean their hands. The client's hands can spread germs too; therefore, personal hand hygiene for clients is also important. ABHR and/or soap and water are available for clients and visitors in all health care settings to reduce the risks of environmental contamination with respiratory viruses, gastrointestinal viruses and antibiotic-resistant organisms (AROs). Clients are encouraged or assisted to perform appropriate hand hygiene after toileting, before leaving their room or clinic area and prior to eating.
- Education aimed at clients and their families and visitors is provided. Information fact sheets, brochures and posters may be used along with instructions regarding when and how to perform hand hygiene.
 - Refer to 4 Moments for Hand Hygiene – Information for Patients, Visitors, Families, and Volunteers/4 Indications de l'Hygiène des Mains – Renseignements à l'intention des Patients, Visiteurs, Familles, et Bénévoles (CLI.8011.PL.001.SD.04 and CLI.8011.PL.001.SD.04.F).

- Refer to Visitors – Stop the Spread of Infection Poster (CLI.8011.PL.001.SD.08)

8. Hand Hygiene Monitoring and Reporting

Hand hygiene monitoring and reporting is completed through empowering all HCWs, clients and visitors to discuss and promote hand hygiene practices.

Clients/families and visitors are encouraged to take responsibility for protecting themselves and others by keeping their own hands clean and asking their HCW to do the same. This initiative is supported through placement of Visitors – Stop the Spread of Infection Poster (CLI.8011.PL.001.SD.08) at entrances, nursing stations and in key locations on the units in Acute Care/Personal Care Homes and through transparent hand hygiene conversations. Visitors are also directed to clean hands often as per various posters throughout the facility, including at every ABHR dispenser.

Hand Hygiene audits are conducted at minimum, quarterly by all facilities/programs that provide client care. Audits are completed by appropriately trained hand hygiene auditors using the regional hand hygiene audit to routinely monitor hand hygiene compliance. The auditor may provide feedback to the HCW being observed, in a timely, non-punitive manner.

- Refer to 4 Moments for Hand Hygiene Audit and 4 Moments for Hand Hygiene Audit Form Instructions for Use – Facility (CLI.8011.PL.001.FORM.02)

Auditor training is provided by the Regional Infection Prevention and Control program. Standardized hand hygiene audit training tools and processes are in place, which includes practice scenarios for newly trained staff to familiarize themselves with the process.

Data on hand hygiene compliance is used for comparison at the SDO and provincial level. When data is used for comparison, it is important to note that a higher number of observed opportunities generates a more reliable and representative hand hygiene compliance rate. Small sample sizes are not reliable as a change in hand hygiene compliance could be due to chance alone rather than the effect of a hand hygiene improvement initiative. The greater the sample size, the better the confidence in the result to permit meaningful comparison between areas and between time periods.

Acute Care/PCH Facilities:

The following table provides the recommended minimum number of observed opportunities (moments) required per fiscal quarter. Ideally, the observed opportunities are collected regularly throughout the fiscal quarter to add to the reliability and the representativeness of the information. If possible, hand hygiene compliance should be assessed on multiple HCW categories.

Number of Observed Opportunities to Achieve Best Practice

Number of Beds/Visits	Minimum Number of Observed Opportunities
Less than or equal to 25	50 per quarter
26-50	100 per quarter
51-100	200 per quarter
101-150	300 per quarter
151-200	400 per quarter

Note: A minimum of 200 observed opportunities per Service Delivery Organization (SDO) per year is required for reporting a hand hygiene compliance rate to MHSAL.

Community Programs (e.g. Home Care, Public Health, Mental Health, Primary Care and Shared Health [EMS, Diagnostic Services]):

- Each community program to observe 100 hand hygiene opportunities semi-annually
- Community programs to determine the process for collecting a representative sample from their program. This is determined by the Director of the portfolio in collaboration with the managers.
- Refer to 4 Moments for Hand Hygiene Audit and 4 Moments for Hand Hygiene Audit Form Instructions for Use – Community (CLI.8011.PL.001.FORM.01)

The goal for hand hygiene compliance is 80%, with an overall target of 100% compliance. To assist with compliance, positive improvement is recognized. To be considered a consistent standing rate, a rate of greater than 80% must be reached for at least two consecutive audits.

SH-SS will work towards achieving and reporting the number of observed opportunities to meet best practice as recommended by Manitoba Health Seniors and Active Living (MHSAL). SH-SS reports HH compliance rates for Moments 1 and 4 to MHSAL with a goal to report provincial HH compliance rates publicly.

Site Infection Control Practitioners are responsible to ensure the required number of observed opportunities are audited for each quarter. Hand hygiene audit data should be submitted by the 15th of the month following each fiscal quarter.

The Regional Infection Prevention and Control program will compile all HH data and provide facility/community program specific reports on a quarterly basis. Annually, HH reports will be provided comparing the site/program with regional HH rates. HH reports should be posted in clinical areas for all staff to review with the goal of improving hand hygiene practices. HH results should be discussed at site level meetings with the goal to improve HH performance and compliance rates. Staff non-compliance with the 4 Moments for HH should be addressed by site leadership.

SUPPORTING DOCUMENTS:

- [CLI.8011.PL.001.FORM.01](#) 4 Moments for Hand Hygiene Audit and 4 Moments for Hand Hygiene Audit Form Instructions for Use – Community
- [CLI.8011.PL.001.FORM.02](#) 4 Moments for Hand Hygiene Audit and 4 Moments for Hand Hygiene Audit Form Instructions for Use – Facility
- [CLI.8011.PL.001.SD.01](#) 4 Moments for Hand Hygiene (“When/Why”) Poster
- [CLI.8011.PL.001.SD.01.F](#) 4 Moments for Hand Hygiene (“When-Why”) Poster - French
- [CLI.8011.PL.001.SD.02](#) SH-SS Hand Hygiene “How to Hand Rub” and “How to Hand Wash” – Bilingual Posters
- [CLI.8011.PL.001.SD.03](#) 4 Moments for Hand Hygiene (Picture) Poster
- [CLI.8011.PL.001.SD.04](#) 4 Moments for Hand Hygiene - Information for Clients, Visitors, Families, and Volunteers Poster
- [CLI.8011.PL.001.SD.04.F](#) 4 Moments for Hand Hygiene - Information for Clients, Visitors, Families, and Volunteers Poster - French
- [CLI.8011.PL.001.SD.05](#) Hand Hygiene Considerations in Facility Design
- [CLI.8011.PL.001.SD.06](#) General Hand Care Instructions Staff Handout
- [CLI.8011.PL.001.SD.07](#) Infection Prevention & Control Hand Hygiene Poster Placement Guidelines
- [CLI.8011.PL.001.SD.08](#) Visitors – Stop the Spread of Infections Poster

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