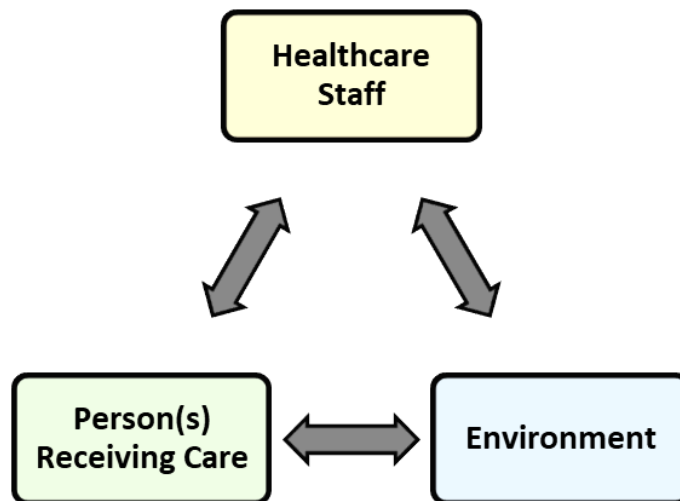


2. HAND HYGIENE

Hand hygiene (HH) is a comprehensive term that applies to hand washing, hand antisepsis and to actions taken to maintain healthy hands and fingernails. Hand hygiene is a core element of safe care for the prevention of infections and preventing the spread of microorganisms (germs), including antimicrobial resistant organisms (AROs). Hand hygiene includes cleaning hands with soap and water or alcohol-based hand rub in order to remove microorganisms. HH includes [surgical hand antisepsis](#).^{13.4}

The most common way microorganisms are spread in any healthcare setting is from the hands of health care staff to patient/resident/client (P/R/C), either directly or indirectly. During the delivery of health care, staff constantly touch surfaces and substances including inanimate objects, a P/R/C's intact or non-intact skin, mucous membranes, food, waste, body fluids and the staff member's own body (e.g., hair). All of these can carry potentially harmful microorganisms that can be passed on to someone else if proper HH is not performed. The spread of microorganisms can result in **healthcare-associated infections** (HAIs).



Healthcare workers should teach those receiving care, Designated Caregivers and visitors about HH. The benefits of the general public participating in hand hygiene should not be underestimated. HH education and accessible HH product for the general public is encouraged.

**In healthcare settings,
hand hygiene is the single most important way
to prevent infections**



2.1. Alcohol-Based Hand Rub (ABHR)

- Use of alcohol-based hand rub (ABHR) has been shown to reduce healthcare-associated infection rates
- **ABHR is the preferred hand hygiene method** and should be used at point-of-care unless hands are visibly soiled
- ABHR is appropriate to use when caring for P/R/C with *Clostridioides difficile*, except in outbreak or hyperendemic (sustained high rate) settings, then handwashing with soap and water is recommended^{13.11}.
- ABHR is faster and more effective than washing hands (even with an antibacterial soap) when hands are not visibly soiled
- ABHRs:
 - ✓ Provide for a rapid kill of most transient microorganisms
 - ✓ Are not to be used with water
 - ✓ Contain emollients to reduce hand irritation
 - ✓ Take less time than washing with soap and water
- **DO NOT** use ABHR with water as it will reduce its effectiveness
- **DO NOT** use ABHR immediately after hand washing with soap and water as it will result in more hand irritation
- ABHR available for healthcare settings ranges in concentration from 60 to 90% alcohol.

2.2. Hand Washing

Hand washing with soap and running water must be performed when hands are visibly soiled. Antimicrobial soap may be considered for use in critical care settings such as intensive care units and burn units, but is not required and not recommended in other care areas.

- If the P/R/C bathroom must be used for hand hygiene (no other option available), avoid contamination of hands with potentially contaminated surfaces and objects.

Bar soaps are not acceptable in healthcare facilities or community settings for use by HCWs, and are only for individual P/R/C use. In healthcare facilities bar soap should be supplied in small, single P/R/C use pieces, and must be stored in a soap rack to allow drainage and drying. Discard bar soap on discharge.

Plain soaps act on hands by emulsifying dirt and organic substances (e.g., blood, mucous), which are then rinsed away with running water. Antimicrobial agents in plain soaps are only present as a preservative.^{13.6}

- Antimicrobial soaps have residual antimicrobial activity and are not affected by the presence of organic material.

Disadvantages of antimicrobial soap include:

- Antimicrobial soaps are harsher on hands than plain soaps and frequent use may result in skin breakdown; and
- Frequent use of antimicrobial soap may lead to antibiotic resistance in microorganisms.

Hand hygiene with correctly applied ABHR kills microorganisms in seconds; Hand hygiene with soap and water done correctly, physically removes microorganisms

2.3. Care Environments

The care environment is the space around the P/R/C that may be touched by either that P/R/C or staff.

Two different environments:

1. Healthcare External Environment/Zone:

This is the environment beyond the immediate area surrounding the P/R/C.

- In a single bed room this is outside the room
- In a multi-bed room this is everything outside the bed area of the P/R/C
- In home care this is equipment and transport or storage containers temporarily brought in to the home. [13.2](#) (examples include: supply/visit carry bag, equipment, pens etc. – if items have to be brought into P/R/C environment clean/disinfect immediately before and/or after use)
- This includes the people within it; staff, visitors, volunteers and other P/R/C are part of the healthcare (external) environment. In the home this would include other household members [13.2](#)

NOTE: For staff this means their uniform/pockets, glasses, hair, etc. are part of the healthcare (external) environment.

2. Patient/Resident/Client (P/R/C) Environment/Zone:

The term 'patient/resident/client (P/R/C) zone' refers to the space that contains the P/R/C, as well as the immediate surroundings and inanimate surfaces in contact with that P/R/C (e.g., bed rails, chair, bedside tables, work surfaces, bed linens, infusion tubing, and other medical equipment). It also contains surfaces frequently touched by staff within the vicinity of the P/R/C (e.g., monitors, buttons and knobs, and other frequently touched - "high touch" surfaces within the P/R/C zone).



- In a single room this is everything in the room of the P/R/C
- In a multi-bed room this is the area inside the privacy curtain/divider space of the P/R/C
- In an Emergency department cubicle, it is the stretcher of the patient and the equipment in close proximity used in the care of the patient
- In a nursery/neonatal and intermediate care setting, the patient environment includes the inside of the bassinette or isolette, the equipment outside the bassinette or isolette used for that infant (e.g., ventilator, monitor), as well as an area around the infant (i.e., within approximately 1 metre/ 3 feet)
- In an ambulatory care/clinic setting this is the P/R/C themselves, their belongings and any equipment/furniture being used during care/treatment
- In home care this is the entire residence of the P/R/C^{13.2}

2.4. Indications and Moments for Hand Hygiene During Healthcare Activities

When shall hand hygiene be performed? A hand hygiene indication identifies why hand hygiene is necessary at a given moment. There may be several indications to perform hand hygiene in a single care sequence or activity. Hand hygiene shall be performed before and after any direct contact with a P/R/C or their equipment, between procedures on the same P/R/C, and before contact with another P/R/C. While all indications for hand hygiene are important, there are some essential moments in healthcare settings where the risk of transmission is greatest and hand hygiene must be performed.

Essential HH indications can be simplified into 4 moments for training