

Alcohol-based Hand Rub Dispenser Placement Algorithm

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If you have any questions or comments regarding this information, please contact the Infection Prevention & Control Hand Hygiene Program at: hand.hygiene@ahs.ca.

Background

Alcohol-based hand rubs (ABHR) have become increasingly more accessible in public places like hospitals and other care settings, shopping malls and schools. ABHRs are effective for hand hygiene because they have a high concentration of ethanol or alcohol which acts as a skin disinfectant and are helpful in preventing the spread of microorganisms. However, ABHR can pose a risk to our patients, clients or residents and can result in harm, including death, if ingested.

Wall-mounted items such as hand hygiene products and sharps containers are frequently used in healthcare settings. The correct mounting height is important for ease of access, good visibility, protection of eyes from spray/bounce-backs and universal design principles.

Alcohol-based hand rub is a flammable liquid with regulations that guide volume, placement and storage of this product. For more information contact Fire Life Safety at AHSFireSafety@ahs.ca or your local Fire Marshal.

Maximum quantities

The [19-FCV-022 Fire Safety and Hand Hygiene in Healthcare Settings \(June 2020\)](#) is archived. Placement of all existing ABHR dispensers based on the archived document are not affected.

For all future and currently open construction projects, written approval from the Authority Having Jurisdiction (AHJ) (i.e., local fire department) is required to determine the maximum quantities allowed. The archived STANDATA could be used as a reference guide for proposing the maximum quantities allowed. This step is led by the project team and is incorporated into existing building permit and occupancy permit processes.

Dispenser placement considerations

Each area must consider the unit layout, workflow and transmission risk when determining best placement of ABHR. The algorithm is intended to assist units and facilities to assess the placement of ABHR dispensers in each fire compartment. Each area should be assessed using the algorithm to determine ideal locations for ABHR. Existing ABHR dispensers may need to be relocated or removed based on the new assessment. Up-to-date floor plans may be valuable for documenting this assessment. For sprinkler and fire compartment determination refer to local Facilities Maintenance and Engineering (FM&E) or Fire Life Safety specialist.

This algorithm should be followed in its entirety and decisions for ABHR placement should be completed by a multidisciplinary team including, at minimum, unit and/or site management and staff, FM&E representation and an Infection Prevention and Control Professional.

1. Identify each fire compartment and assess each one independently. Total ABHR volumes apply to each fire compartment. A unit or facility may have several fire compartments.
2. Is this an area where patients or visitors may not have the capacity to understand the negative effects of ingestion or misuse of ABHR?
 - a. If yes, use [Alcohol-based Hand Rub Product Ingestion Risk Screening](#) tool to determine if

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alternatives to mounted dispensers, such as dispensers or secured portable dispensers are needed.

3. Determine ABHR placement based on maximum allowed volume and the priority areas listed below. Evaluate volumes remaining after each priority and adjust placement to address all four priority areas in consultation with the multidisciplinary team.
 - a. **Priority 1:** Adjacent to all points of care, where the patient receives treatment from the healthcare provider.
 - b. **Priority 2:** Immediately adjacent to clean and sterile supplies, including linens.
 - c. **Priority 3:** Where personal protective equipment is donned or doffed.
 - d. **Priority 4:** At unit/facility entrances.
4. Once placement is agreed upon by the multidisciplinary team, mount ABHR dispensers in the evaluated area according to WHS recommendations and the [Alcohol-based Hand Rub Dispenser Placement Recommendations](#). Existing ABHR dispensers may need to be relocated or removed based on the new assessment.
5. Notes:
 - a. ABHR dispensers shall not be placed next to hand hygiene sinks, above or beside an ignition source or above carpeted areas.
 - b. Placement decisions shall consider unit/facility layout, workflow and transmission risk.
 - c. Portable or non-anchored ABHR dispensers do not count towards total volume and must be kept to a minimum.
 - d. Storage of ABHR in the fire compartment must be included in total volumes.



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