

# Accepted Manuscript

Ineffective alcohol-based hand rub and defective dispenser design – A cautionary note

Ian Blenkarn



PII: S0195-6701(17)30696-5

DOI: [10.1016/j.jhin.2017.12.018](https://doi.org/10.1016/j.jhin.2017.12.018)

Reference: YJHIN 5310

To appear in: *Journal of Hospital Infection*

Received Date: 29 November 2017

Accepted Date: 20 December 2017

Please cite this article as: Blenkarn I, Ineffective alcohol-based hand rub and defective dispenser design – A cautionary note, *Journal of Hospital Infection* (2018), doi: 10.1016/j.jhin.2017.12.018.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Sir,

Throughout the healthcare sector and elsewhere, alcohol-based hand rub (ABHR) has become ubiquitous. It is unquestionably cost-effective and has proven invaluable in improved hand hygiene and the prevention of infection. However, the annual cost to provide ABHR and dispensers is undoubtedly high and this may become a misguided target for cost saving.

Low-cost ABHR formulations offer possible cost saving but many are likely to have a reduced alcohol concentration and fail to meet the requirements of the European Standards EN1276 and EN1500 efficacy criteria, even when used to excess. It is therefore of considerable concern to find such products in use in healthcare and related settings; a problem compounded by using ABHR dispensers that are inherently defective in design that facilitate loss of alcohol content, through evaporation.

First observed in use at a UK university, open hopper dispensers promoted for either ABHR or liquid soap have since been found in a registered care home, in a pathology laboratory and two water hygiene testing laboratories, in a healthcare waste company treatment facility, in schools, offices and in several UK food stores. Outwardly, the dispensers look like many others but are generally unbranded (Figure 1). Inside the dispenser is a refillable open hopper to hold ABHR (Figure 2). To compliment these dispensers, ABHR is available in 5000ml bulk buy drums in order to refill the open hopper. These are labelled “alcohol hand sanitizer”; additional labelling identifies the product as “suitable for general use in hospitals and food preparation areas”, and often also stating that the product is “certified against MRSA”. Comprising of denatured ethanol, water, monopropylene glycol, glycerine, triethanolamine, diethanolamine, alcohol ethoxylate and cyclohexane; usually, neither the product packaging nor the manufacturer’s documentation specify the alcohol concentration, or make reference to performance test data, or support the claim that the product is “certified against MRSA”. The bulk ABHR container usually carries a product identification code but no batch number or expiry date.

Bulk ABHR supplies and wall-mounted open hopper dispensers are available from several janitorial supplies companies. Prices are generally lower than the basic price for EN1500-compliant single-use dispensing bottles or single-use refill packs which are available in sizes up to 1200ml. However, it is of concern that UK National Health Service (NHS) supply chain, the body that supplies consumables to NHS healthcare facilities, offers a 5000ml bulk ABHR drum from which to refill open hopper dispensers. It is thus likely that these open hopper dispensers are in use across the healthcare organisations. Some suppliers additionally offer the same refillable open hopper dispensers for liquid soap products. However, repeated refilling of the hopper risks extensive microbial

Download English Version:

<https://daneshyari.com/en/article/8740089>

Download Persian Version:

<https://daneshyari.com/article/8740089>

[Daneshyari.com](https://daneshyari.com)