Local production of WHO-recommended alcohol-based handrubs: feasibility, advantages, barriers and costs

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Abstract

Problem Reduction of health care-associated infections (HAI) in low- and middle-income countries is hampered by inadequate supply of soap and water and the unavailability or high cost of alcohol-based handrubs (ABHR) for hand hygiene.

Method In 2005, the World Health Organization (WHO) developed and pilot tested two ABHR formulations suitable for local production in health-care facilities. In 2011, an online survey evaluated feasibility, advantages, costs and barriers to local production of the WHO-recommended ABHR formulations.

Findings WHO formulation local production proved feasible in all 39 participating sites from 29 countries, with 54% replacing a previously used ABHR. Product tolerability and acceptability was excellent in 82% of sites. Cost evaluation showed WHO formulations to be less expensive than marketed products. In 88% of sites,

WHO formulation use was promoted as part of a multimodal strategy, considered the most effective approach for hand hygiene improvement and subsequent HAI reduction. Difficulty identifying staff with adequate skills for local production was experienced by 41% of sites with a need for training in 74%. Constraints in ingredient and dispenser procurement were encountered in 51% of sites.

Discussion The WHO formulations can be easily produced locally at low cost and are very well tolerated and accepted by health-care workers, thus enabling facilities to comply with hand hygiene gold standards in low- and middle-income countries. Quality control issues pertaining to contamination, product smell and local ingredient and dispenser availability are potential barriers requiring further investigation and improvement.

Conclusion The local production of WHO-recommended ABHR formulations provides an alternative solution to costly commercially-produced ABHR and is particularly suitable for low- and middle-income countries.

Key words: cost analysis, health services development, quality assessment, pharmaceuticals products, hand hygiene, patient safety

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