Press Release

Clean Hospitals answers as a network to a misinformation case.

Geneva, 8 September 2020 – Clean Hospitals would like to bring your attention to a piece of misinformation about hand hygiene written by Lucy Johnston interviewing Dr. Andrew Kemp in the Express.[1]

Normally we would not engage with these kinds of tabloid publications. However, seeing as how the article has been gaining a lot of traction coupled with the fact that Dr. Kemp is an advisor in environmental hygiene and could be perceived by the public as an expert, we deemed the publication a threat to public health, and worthy of our attention.

The article makes a variety of disproven claims including that using alcohol based (ABHR) will result in the creation of "superbugs", that they work less well than soap and water, that they don't work well for protecting people during COVID-19, that we should only use them in emergency situations, etc. This interview is not based on scientific evidence, shows that the author is not familiar with the literature about hand hygiene, and peddles dangerous false infection prevention information to the public. The wide readership of this paper will undoubtedly have a negative effect on hand hygiene compliance in the UK, and possibly around the world. This article is thus directly putting human lives at risk, which is especially dangerous during a pandemic spread in part through insufficient hand hygiene.

In the interview, Dr. Kemp references his "academic" publication,[2] which was published in an open access journal without an impact factor.[3] Its publisher "New World Publishing" is on Beall's list of predatory publishers meaning that it is not a real journal, and that anyone can publish with them.[4] Furthermore, none of Dr. Kemp's 22 publications he mentions are indexed in PubMed, so they are likely neither academic, nor peer reviewed. He is far from being an expert in hand hygiene, but is portrayed as one.

It is important to remember the facts, especially during a pandemic. First, SARS CoV-2, is an enveloped virus, which is very easy to kill with ABHR. [5–8] This is why alcohol is widely recommended to kill COVID (including by the WHO, CDC, and ECDC). [9–12] Hand hygiene should be performed either with ABHR or soap and water; both methods are good. ABHR has a higher log reduction of microorganisms on hands and is much faster and more convenient to perform than washing correctly with soap and water.[13,5–8] Washing with soap and water is better if hands are physically soiled or have come in contact with spore-forming organisms. [12,14] The reasons people were encouraged to wash their hands and use handrub when water was not available during COVID-19 was because there was a shortage of ABHR in hospitals and the community, and because it is easier to recommend one thing than teaching people when to rub and when to wash.[15–17]

Unlike an antibiotic, alcohol's mechanism of action against bacteria and viruses works through protein denaturation and dissolving the lipid membrane.[18,19] Because of this mechanism, and the fact that the

alcohol evaporates very shortly after the microorganisms are killed, there is an extremely low chance of resistance developing. After over 25 years of widespread use of ABHR around the world, we have no evidence of any resistance to any alcohol concentration anywhere near 60%, which is the minimum concentration for ABHR.[20–22]

Sufficient hand hygiene either with ABHR or with soap and water is actually a cornerstone to prevent "superbugs" by preventing the infections that would have required treatment with antibiotics.[23,24] There is no proof of any increased bacterial or viral resistance to ABHR, and that the one study that saw a tolerance in a certain bacteria after long-term exposure to a very low concentration of alcohol has absolutely no clinical relevance. [14,25,26]

It is also important to note that the various other disinfectants such as hypochlorous acid and ammonium quaternary compounds, recommended by Dr. Kemp as substitutions for alcohol, come with their own disadvantages (such as efficacy, environmental residues, toxicity, etc.) and are thus not recommended for hand hygiene. To summarize: handwashing is a good measure for infection prevention in the community, but it takes much longer, is actually proven to be much more damaging to skin than ABHR and microbiologically less effective. [27–32]

In addition to this press release the British Institute of Cleaning Science, where Dr. Kemp is a advisor, is preparing an official statement. The Journal of Hospital Infection agreed to publish a letter, and we are in direct contact with the Independent Press Standards Organization. We would like to thank all of our stakeholders both from Clean Hospitals and the World Health Organization's Private Organizations for Patient Safety, who have brought the issue to the attention of Prof. Didier Pittet and our Academic Taskforce. Lowering hand hygiene rates in the middle of a pandemic will inevitably cost some people their lives, and we are committed to work together to fight this misinformation.

About Clean Hospitals

Clean Hospitals is a coalition of international stakeholders who work explicitly to promote Healthcare Hygiene. This initiative was born from a lack of strong guidance for environmental hygiene, missing awareness and the need for a whole sector to improve healthcare environmental hygiene. Clean Hospitals seeks to harness the collective strengths of industry, academia, hospitals, governmental bodies and key stakeholders in order to collaborate across disciplines and interest groups. We aim to use the knowledge and momentum generated by our research and working groups to raise industry standards and increase the visibility of the hospital environment in patient care. Although the hospital environment tends to be one of the most understudied and underfunded areas in healthcare, there is enough literature in the field to prove that a well-maintained patient environment is crucial for preventing the spread of healthcare-associated infections and antimicrobial resistance. Beyond patients, hospital environment hygiene also has a direct impact on the lives of the people working in the hospitals, as well as a broader impact on communities and the environment. The improvements in hospital environmental hygiene will benefit public health by lowering rates of healthcare-associated infections, reducing antimicrobial resistance, and protecting hospital staff as well as the larger environment. https://cleanhospitals.com/

Press contacts Clean Hospitals

Florence Kuijl - florence.kuijl@cleanhospitals.com – Tel: +33.767.84.83.07

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