

Hand sanitizers which ones work best?

Statement from the current UK Health Protection agency web site

“Hands continue to play a major role in the transmission of infection in all healthcare environments. Hand cleansing is the single most important factor in the prevention of infection and curbs the spread of potentially pathogenic organisms”.

Anti microbial soaps – there are several different types of antimicrobial soaps available today. They are generally effective against most microorganisms. The fact that they are used with running water helps with the efficacy of their action. The water will kill certain microbes as well as allowing the microbes to be washed away from the skin. The action of rubbing your hands together as well will assist in the removal of microbes from the skin. Within reason the more vigorous you rub your hands together the more affective that is at removing microbes. In respect to the agents used, there is some evidence that some soaps may be responsible for contact dermatitis in some regular users.

The major problem with these soaps is that they have no residual, that is to say they do not have any lasting affect. If all the microbes on the skin haven't been removed during the washing process, than skin will begin to re colonise immediately. If the microbes have all been removed from the skin at the time of washing, there is still nothing present to stop re colonisation as soon as another contaminated surface is touched. In one study published in 2004 a single hand wash with anti microbial soap had a minimal effect on quantity of hand flora (microbes).

Anti bacterial hand gel – hand gel is made from a minimum 60% alcohol. They have a localised affect until they have evaporated. There is minimal affect after the gel has evaporated. They have a fairly broad spectrum microbial kill. They do not kill viruses such as Norovirus, so provide no protection against this type of virus. Alcohol gel has been used in areas such as hospitals and other healthcare facilities where it been shown to be unpopular with a large number of the staff. Hand gel has been associated with large numbers of staff having sore painful dry skin, as the alcohol dries the natural oils from the skin. It is difficult to gain compliance for use, when it is so unpopular.

As with all non persistent anti bacterial skin treatment, anti bacterial hand gel leaves nothing behind to continue protecting the skin from re colonisation. As with antibacterial soap if all the microbes on the skin haven't been removed during the evaporation process, the skin will begin to re colonise immediately. If the microbes have all been removed from the skin at the time of evaporation, there is still nothing present to stop re colonisation as soon as another contaminated surface is touched.

Anti microbial foam – Recently there has been a new group of skin sanitizers using a foaming technology. They are based on the same antimicrobials as the soaps/ gel. They have the same broad activity although still short acting. It is probably due to the introduction and popularity of the Q Shield hand sanitizer which comes as a foam that the new trend for foam has arisen. Although there is some evidence that the new generation of foams are slightly more forgiving to the skin than hand gel (still to be fully determined), they all have the same basic problem – there is no lasting affect, re colonisation is always possible as there is nothing to stop it from happening.

3 – TSP – Q Shield is a new concept in hand sanitation. The active chemical 3-TSP has the most affective broad spectrum microbial kill of any hand/ skin sanitizers available today. It kills viruses like Norovirus and Swine flu. It kills fungi as well as bacteria such as MRSA and C Difficeal. The most important differences between Q Shield and any of the hand gels, hand wash, hand sanitizers, is that it is persistent. In independent laboratory testing Q shield out performed all other tested anti microbial agents, and continued to do so for almost 3 days on the skin. In real life the difference this makes to any individual is enormous, as there is always an antimicrobial layer ready to kill microbes that come into contact with the skin. The Q shield barrier can not be washed from your skin, so frequent hand washing with or without soap is to be encouraged as normal. As with all anti microbial technology, reducing the bio burden on the skin before the active chemicals get to work allows the chemicals to work more quickly and more effectively. Although Q shield is new, it is being purchased by NHS staff, private hospital groups and large companies such as BMW and Opitcal Express, to help protect their staff from catching Swine Flu.

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