

STANDARD DEVIATIONS: All Hands on Deck

Greetings,

My grandkids are firm believers in Santa Claus and being good little boys and girls. Well, when elves are watching, they KNOW Santa is real. When there are no elves around? Different story. Sound familiar?

This modified behavior (acting one way when observed and another when alone) is known as the **Hawthorne effect**. And it happens to more than just kids with Mr. Claus.

The Hawthorne effect has been demonstrated, documented and decried in hospitals with Healthcare Workers (HCW) and **hand hygiene**. This phenomenon has been known for decades and has not changed. We're angels when observed and dirty little devils when we think no one's looking. And it ain't nice to be naughty.

Healthcare Associated Infections (HAI) go hand-in-hand with hand hygiene hijinks. **35,000 deaths occur each year from infections acquired in hospitals**. Central line-associated bloodstream infections (CLABSI), catheter-associated urinary tract infections (CAUTI), select surgical site infections (SSI), hospital-onset C. difficile infections, and hospital-onset methicillin-resistant Staphylococcus aureus (MRSA) bacteremia (bloodstream infections) are killing people and the Hawthorne effect in hand hygiene is playing a part.

Detecting these infections and providing laboratory support for these patients falls to us. The other side of this grimy coin is the burden we experience at the bench, diagnosing and dealing with the consequence of HAI. Naturally, Micro sees a huge proportion of this deluge, but these patients need clinical laboratory support across the board and that means plenty of work for everyone.

Laboratorians are neither immune nor innocent in propagating transmission through poor hand hygiene. We may be one step removed from direct patient contact (unless you're doing phlebotomy) but we are receivers of infectious material coming from every corner of our facilities. We say that hand hygiene is important, and we expect the people sending us their samples to be on the same page.

Of course, we're not part of the problem, right? Riiiiiiight. Most studies (and there are a bunch) look at hand hygiene in HCW with patient contact. It might (or might not) surprise you that doctors are worse than nurses and nurses are better than technicians and residents and there isn't a lot of attention paid to lab. But every group shows the Hawthorne effect, always. It happens.

So, I would be remiss in my duty as a biosafety officer if I didn't ask, "What can I do about it?" Well, I can do this. I can say, "Here's the problem, we need to be better at hand hygiene." The next part is up to each of us.





Have a great week and be safe,

Bryan

p.s. Here is a fact sheet from the CDC (found here: <https://www.cdc.gov/handhygiene/pdfs/Provider-Factsheet-508.pdf>) that doesn't work (if it did well we ... wouldn't ... need it!) but makes it look like I'm trying. If it inspires you to ask, "What would work?" then I'm succeeding.

p.p.s. The Hawthorne effect was first described back in the 1930's and is an interesting story about how we think about work, productivity, and management. I think it's worth a look, sometime. Then pick **any** study about hand hygiene in hospitals to see it in action.



CLEAN HANDS

COUNT

FOR HEALTHCARE PROVIDERS

KNOW THE TRUTH TO PROTECT YOURSELF AND PROTECT YOUR PATIENTS

TRUTH:

Alcohol-based hand sanitizer is more effective and less drying than using soap and water.

THE NITTY GRITTY:

Compared to soap and water, alcohol-based hand sanitizers are better at reducing bacterial counts on hands and are effective against multidrug-resistant organisms (e.g., MRSA). Additionally, alcohol-based hand sanitizers cause less skin irritation than frequent use of soap and water.



TRUTH:

Using alcohol-based hand sanitizer does NOT cause antibiotic resistance.

THE NITTY GRITTY:

Alcohol-based hand sanitizers kill germs quickly and in a different way than antibiotics. There is no chance for the germs to adapt or develop resistance.

TRUTH:

Alcohol-based hand sanitizer does not kill *C. difficile*, but it is still the overall recommended method for hand hygiene practice.

THE NITTY GRITTY:

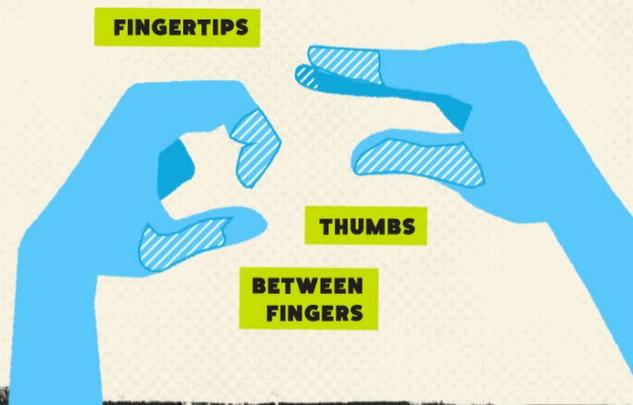
Always use gloves when caring for patients with *C. difficile*. In addition, when there is an outbreak of *C. difficile* in your facility, wash your hands with soap and water after removing your gloves.

TRUTH:

Some healthcare providers miss certain areas when cleaning their hands.

THE NITTY GRITTY:

Using alcohol-based hand sanitizer becomes a habit and sometimes healthcare providers miss certain areas:



Clean Hands Count 100% of the Time

PROTECT YOURSELF AND PROTECT YOUR PATIENTS FROM POTENTIALLY DEADLY GERMS

TRUTH:

The amount of product you use matters.

THE NITTY GRITTY :

Use enough alcohol-based hand sanitizer to cover all surfaces of your hands. Rub your hands together until they are dry. Your hands should stay wet for around 20 seconds if you used the right amount.

TRUTH:

Glove use is not a substitute for cleaning your hands. Dirty gloves can soil your hands.

THE NITTY GRITTY :

Clean your hands after removing gloves to protect yourself and your patients from infection.

TRUTH:

On average, healthcare providers perform hand hygiene less than half of the times they should.

THE NITTY GRITTY :

When healthcare providers do not perform hand hygiene 100% of the times they should, they put themselves and their patients at risk for serious infections.



www.cdc.gov/HandHygiene



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