

Swab your scope

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Janz D. Swatch your scope. *J Nurs Res Pract.* 2018;2(3): 13.

Do you recall a favorite memory about your childhood doctor, your pediatrician, you know, the one that all the kids loved because that 'doc' always had the cutest stuffed-animal monkey hanging from their stethoscope? Or, have you seen this before, the Neonatologist comes to the newborn nursery to admit their healthy "newbies" and forgets their stethoscope and picks up the one hanging on the neonatal warmer. I wonder who left the stethoscope there. Which nurse cleaned it; then the provider placed that same stethoscope on the skin of the fresh, un-colonized client, and says sounds perfect and hangs the device back, politely just where it was found? How about the practitioner who is making rounds down the hospital hallway, just prior to their office time, and zooms in and out of rooms from client to client? What about the nurse who recalls their sergeant-like nursing instructor 'calling them out' in front of all their student peers during the term three simulation when they forgot to swatch their stethoscope prior to an assessment on the high-fidelity manikin? Why, it's only a manikin the students state under their breath! Was that instructor being too harsh or was this the beginning of what should have been a life-long nursing practice?! Practice is formed, practice is changed, and practice must be better, we all must swatch our scopes.

Much like the push to remind healthcare providers of the importance of proper hand hygiene within the healthcare setting, the known benefits to stethoscope hygiene are equally beneficial, but seldom practiced. The importance of stethoscope hygiene has been demonstrated study after study, and is acknowledged within textbooks, journals, and our healthcare settings guidelines, yet stethoscope hygiene is rarely done. From an infection control perspective, along with patient safety, a stethoscope should be regarded as an extension of the healthcare provider's hand and be disinfected before and after every client contact.

As healthcare providers we must do our part. Just as important as it is to enter a client's room with the hand sanitizer visibly being circled around our hands and wrist, and we remind our clients to ask us if we cleaned our hands. We should all swatch our stethoscopes with an alcohol swatch prior to placing the bell of the diaphragm on the client's skin.

Provider education, reminder flyers and provision of cleaning supplies at the start of clinical rotations for staff, nursing students, and attending providers has not changed practice (1). Stethoscope contamination after a single exam is comparable to that of the healthcare providers' dominant hand (1). Stethoscopes definitely harbor bacteria. O'Flaherty and Fenelon reported a contamination rate for stethoscopes for a mean rate of 85% across 28 studies (range 47-100%) (2). The germs found on the providers stethoscopes include *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Clostridium difficile* (C-diff), and vancomycin-resistant enterococci (VRE), just to name a few (3). Healthcare providers know that stethoscopes are capable of transmitting potentially resistant bacteria, including methicillin-resistant *Staphylococcus aureus* (MRSA), hence the practice of disposable stethoscopes on contact isolation carts and intensive care rooms. But what about that prior to diagnosis or under detected culture of the client with MRSA, C-diff, and *pseudomonas* among us? Yes, and that one that you just assessed with your stethoscope that you then placed around your neck and against your very own skin. Yet, for every known MRSA or other multi-drug

resistant pathogen-infected client, there are many more clients on the same healthcare unit with undetected colonization, clients who pose a greater risk of spreading these microorganisms than client's known to be colonized or infected and in isolation (4). Ahh, if we only had a crystal ball to clearly advise us healthcare providers who should be on contact isolation with those bright signs reminding us all of the importance of personal protection equipment (PPE). We must consider those undetected colonizations, universally, with our stethoscope hygiene (5).

When conducting the literature review for this research for this article, I went to one of the most popular producers of quality stethoscopes website to see what was recommended in regard to stethoscope hygiene. On the main page of manufactures website, it is recommended to periodically give the stethoscope a routine cleaning, this helps to ensure optimal acoustic performance, helps extend the life of the stethoscope, and leaves it looking shiny and new". Periodically, how often is that? The manufacturer recommends "proper cleaning of the open bell of a (no-names mentioned) stethoscope using an alcohol wipe". General cleaning tips included that a stethoscope needs to be disinfected, and should be wiped down with a 70% isopropyl alcohol solution, again without the consumer information of frequency?

So, how do we change bad practice for the better when the manufacture of a world-wide stethoscope product fails to teach the consumer that a stethoscope must be cleaned, just like hands before and after every client contact? In school, healthcare providers are taught, but, unfortunately, we as healthcare providers need to be kindly reminded. Signs provided by hospital educators within the healthcare settings, much like 'cover your cough' during flu-season need to be adorned to the entry of every client's room, every unit, every infant warmer. As important as hand-hygiene, stethoscope hygiene has to become habit too- so please swatch your scope before you place it on my skin, and again before you place it back against your neck because you do not have a crystal ball, I may have something you do not want!

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Received: May 03, 2018, Accepted: June 07, 2018, Published: June 17, 2018



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