

Physicians' stethoscopes more contaminated than palms of their hands

February 27 2014

Although healthcare workers' hands are the main source of bacterial transmission in hospitals, physicians' stethoscopes appear to play a role. To explore this question, investigators at the University of Geneva Hospitals assessed the level of bacterial contamination on physicians' hands and stethoscopes following a single physical examination. The study appears in the March issue of *Mayo Clinic Proceedings*.

"By considering that stethoscopes are used repeatedly over the course of a day, come directly into contact with patients' skin, and may harbor several thousands of bacteria (including MRSA) collected during a previous [physical examination](#), we consider them as potentially significant vectors of transmission," commented lead investigator Didier Pittet, MD, MS, Director of the Infection Control Program and WHO Collaborating Centre on Patient Safety, University of Geneva Hospitals. "From [infection control](#) and patient safety perspectives, the [stethoscope](#) should be regarded as an extension of the physician's hands and be disinfected after every patient contact."

In this study, 71 patients were examined by one of three physicians using sterile gloves and a sterile stethoscope. After they completed the examination, two parts of the stethoscope (the tube and diaphragm) and four regions of the physician's hands (back, fingertips, and thenar and hypothenar eminences) were measured for the total number of bacteria present.

The stethoscope's diaphragm was more contaminated than all regions of

the physician's hand except the fingertips. Further, the tube of the stethoscope was more heavily contaminated than the back of the physician's hand. Similar results were observed when contamination was due to methicillin-resistant *S.aureus* (MRSA) after examining MRSA-colonized patients.

This work is the first to compare directly the level of contamination of physicians' hands and stethoscopes. Stethoscope contamination is not trivial and is comparable to the contamination of [healthcare workers'](#) fingertips, the hand region most implicated in microbial cross-transmission. Physicians must be aware of the need to disinfect their stethoscope after each use.

More information: *Mayo Clinic Proceedings* [DOI: 10.1016/j.mayocp.2013.11.016](#)

Provided by Elsevier

Citation: Physicians' stethoscopes more contaminated than palms of their hands (2014, February 27) retrieved 20 April 2024 from <https://medicalxpress.com/news/2014-02-physicians-stethoscopes-contaminated-palms.html>

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