

References

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Consent has been obtained from the parents of the patient.

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Regarding observation of stethoscope sanitation practices in an emergency department setting



To the Editor:

I commend Vasudevan and colleagues¹ for their work on the direct observation of stethoscope sanitation practices in the emergency department. I do, however, have a couple concerns.

First, the authors did not account for disposable antimicrobial cover use² by physicians. Stethoscope covers act as physical barriers, which have been shown to prevent both surface contamination and transmission of microbes,³ although Wood and colleagues⁴ questioned the practical utility of antimicrobial covers in the prevention of disease transmission. Notable, a physician using these disposable covers may not have been observed cleaning the stethoscope diaphragm because it is disposable.

Second, all health care providers, regardless of specialty, should have hygienic stethoscope cleaning practices. I am curious, however, whether Vasudevan and colleagues considered examining the stethoscope

sanitation practice by physician's specialty (eg, infectious disease specialist vs psychiatrist vs surgeon). Therefore, it may be interesting and informative to assess the association between a physician's specialty and stethoscope sanitation practice.

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Response to “Regarding observation of stethoscope sanitation practices in an emergency department setting”



To the Editor:

Thank you, Mr. Otufowora, for your criticisms. Our goal in this study was to assess stethoscope hygiene through direct observation and thus more accurately document provider stethoscope hygiene. However, given the nature of blind observation, it is difficult to account for certain details of the observed circumstances.

1. We did not observe for the use of disposable stethoscope covers, as they were not known to be available in the emergency department in which observation took place. It is possible that some providers carried these covers autonomously, but it was our judgment that this was not even remotely common in our setting; however, we did account for the use of a certain barrier precaution—the use of a sterile glove over the stethoscope diaphragm. We concur that physical barrier precautions in the form of disposable covers would be an effective form of stethoscope hygiene, but hospitals need to enforce this method of hygiene in order for it to be commonplace. Recent literature has questioned the effectiveness of antiseptic methods of stethoscope hygiene. One study has investigated the resistance of certain microbes to 70% isopropyl alcohol

cleaning.¹ A recent molecular analysis study conducted at the University of Pennsylvania found bacteria to be present on provider stethoscopes despite a cleaning using common methods (70% isopropyl alcohol, bleach, hydrogen peroxide).² This suggests that sterile barrier precautions might be the most effective form of stethoscope hygiene as opposed to antiseptic cleaning methods. We believe that a hands-free method of applying such a barrier would be the most effective method of stethoscope hygiene. Such a solution would be welcomed to combat the longstanding problem of stethoscope hygiene.

2. We considered examining differences in stethoscope hygiene among types of providers; however, given that the goal of this study was to perform a blind observation of stethoscope hygiene, the study researchers could not have extensive contact with the observed providers. For this reason, it was not possible, given our method, to delineate certain differences in provider type other than physician versus nurse. We concur that examining differences in stethoscope hygiene among types of providers would be useful for further investigating the problem of stethoscope hygiene. We encourage performing further studies to investigate these differences, as it might inform target groups for stethoscope hygiene interventions.

Thank you, Mr. Otufowora, for your informative criticisms and recommendations for additional study. We hope that this study

will help inform the scientific community about stethoscope hygiene deficits and that further research or interventions will be performed to mitigate the associated risks to patient safety and health.

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