

# Stethoscope Disinfection

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# Stethoscope Disinfection

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## Background/Significance

- One study found that stethoscope contamination was 1000 cfu/membrane following an 8 hour day of use with the only time of disinfection with alcohol being prior to the days use. CfU-membrane should be <20.
- Between 12% and 47% of HCW either never cleaned their stethoscope or did so only once yearly.
- 76% of HCW believed that infection transmission occurs via stethoscopes but only 24% reported disinfecting after every use.

### Current Practice at LVHN

*Clinical Services – Infection Control: LVHN policy addresses cleaning of equipment but a stethoscope is not addressed as an individual entity*

## PICO Question

Does the presence of visual aids and disinfection supplies outside patient rooms increase healthcare worker compliance with stethoscope decontamination between each patient?

## Process/Implementation

- Send out initial survey to see current unit practices related to disinfecting stethoscopes and barriers.
- Collaborated with unit based Infection Control Practitioner
- Display signs above hand sanitizer and at nurses' stations reminding healthcare workers to disinfect stethoscope after each patient use.
- Provide alcohol swabs /hydrogen peroxide wipes at nurses' stations for convenience and educate MSICU staff on importance of disinfecting stethoscopes after each use.
- Distribute follow-up survey one month after implementation to evaluate effectiveness.

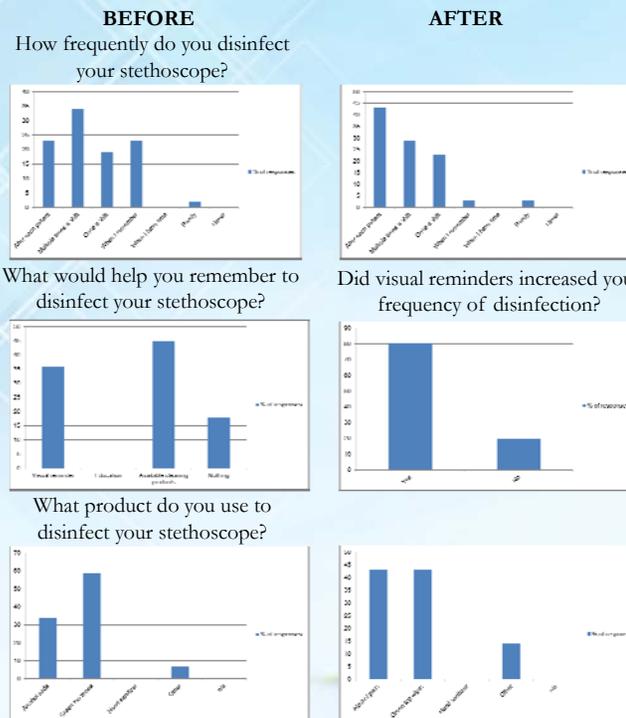
## Evidence

- Greater contamination was found on non-shared stethoscopes (Healthcare professionals presumably use their own stethoscopes more often than shared ones and do not clean them very often regardless of patient unit)
- HCW are more likely to disinfect their stethoscopes when their patient is on contact precautions. This suggests the positive impact visual reminders and reminders of contamination have on compliance.

## Evidence (continued)

- 31 studies reported more than one potentially pathogenic bacterial species per stethoscope.
- After cleaning with hand rub, median colony count was 4 CFU (90% reduction); After cleaning with alcohol wipe, median colony count was 0 CFU (17/24 post cleaning stethoscopes yielded no growth)
- **Compliance increased significantly from a baseline of 34% to 59% following intervention with visual reminders.**
- **Reduction in bacterial load up to 96% can be achieved with alcohol based preparations (whether disinfected with wipes or foam – no significant difference)**

## Results



## Data Collection/Luminometer

- Desired result: **≤ 250**
- Ascom phone: **1192**
- Inside of second drawer in patient room: **151**
- Door handle to locker room: **624**
- Face of Pyxis machine (where the finger print spot is): **1045**
- Stethoscope #1: **757**
- Stethoscope #2: **106**
- Stethoscope #3: **72**
- Stethoscope #4: **495**
- Stethoscope #5: **717**
- Isolation stethoscope: **66**

## Dissemination/Lessons Learned

- Per the evidence, it is best practice to clean stethoscopes prior to and after each patient with alcohol swabs.
- Visual reminders placed at each desk/nurses station may increase compliance with this policy.

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