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 MSICU 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)

Data Collection/Luminometer

- Desired result: <250
- Asem 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
- Isolation stethoscope: 66
- Stethoscope #2: 106
- Stethoscope #3: 717
- Stethoscope #4: 495
- Stethoscope #5: 76

Results

BEFORE

How frequently do you disinfect your stethoscope?

AFTER

What would help you remember to disinfect your stethoscope?

Did visual reminders increased your frequency of disinfection?

What product do you use to disinfect your stethoscope?

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.

References


O’Flaherty, N., & Fenelon, L. (2015). The stethoscope and healthcare-associated infection: A stake in the grass or innocent bystander?


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