



IS THIS CLEAN?

AN EVIDENCE-BASED LOOK INTO ELECTRONIC
COMMUNICATION DEVICES



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****DISCLAIMER****

OUR GROUP USES THE BRAND NAME VOCERA THROUGHOUT THIS
PRESENTATION, ALONG WITH VARIOUS BRAND NAME CLEANING
PRODUCTS FOR THE SOLE PURPOSE OF THIS EVIDENCE BASED
PRACTICE PROJECT. WE DO NOT ENDORSE ANY OF THESE BRANDS
AND ARE NOT BEING SPONSORED BY THEM.

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DID YOU KNOW?

"1 in 31 patients in hospital
facilities have a healthcare
associated infection."
(CDC, 2021)



**\$28.4 BILLION
PER YEAR**

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WHY WE CARE?


"Pagers (Voceras) can be contaminated with potential pathogens, including antibiotic-resistant strains, and that simple cleaning with 70% isopropyl alcohol significantly decreases [...] pathogenic bacteria."
(Singh et al., 2002)



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OBJECTIVES


- Healthcare workers: nurses, patient-care technicians, providers, respiratory therapists etc.
- Survey current practices, awareness, and compliance
- Growth on Voceras
- Promote awareness, educate on manufacturer guidelines, suggest policy change, improve compliance



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PICO

Would education, recommendations and policy improvements related to Vocera cleaning practices increase cleaning compliance of Voceras for staff that are directly involved in patient care at Cook Children's Medical Center?



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EBP PURPOSE STATEMENT

The purpose of our evidence-based project is to reduce the risk of hospital-associated infections at Cook Children's Medical Center by recommending a standardized policy related to Vocera cleaning and improving knowledge and compliance rates of evidence-based cleaning practice.

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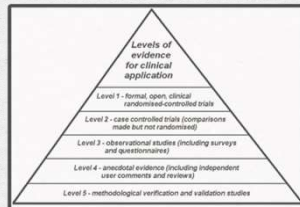
SUMMARY OF LITERATURE SYNTHESIS: TYPES OF EVIDENCE FOUND

SEVEN ARTICLES FOUND
Years: 2002 - 2023

Level 4= 2

Level 3= 1

Level 2= 4



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WHAT THE LITERATURE SAYS

Staphylococci bacteria can survive on inanimate objects for as long as seven months (Gopinath et al., 2011)

"Coagulase-negative bacteria is recognized as a low-virulent organism and the most common contaminant bacteria within the hospital." (Alfarawi et al., 2019)

"Hospital-acquired infections are among the top 10 causes of death in the US" (Arora et al., 2020)

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WHAT THE LITERATURE SAYS

"Findings suggest that regular disinfection of pagers should be implemented by health care workers to prevent spread of potential pathogens including invasive Gram negatives species." (Arora, et al., 2020)

"Coagulase-negative Staphylococcus [...] species were isolated[...]. Although these organisms are considered skin contaminants, [...] they may become pathogens in intensive care or hematology/oncology units." (Arora et al., 2020)

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CURRENT POLICIES

Policy OR- 025:

"Non-critical items are those that come in contact with unbroken/intact skin. Examples of non-critical items include: tourniquets and blood pressure cuffs, linens, mayo-stands and other OR furnishings. These items do not require sterilization, but do require thorough cleaning to remove both visible and non-visible debris with disinfecting wipes."



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CURRENT POLICIES

Policy IC- 110:

"Non-critical items which touch intact skin must minimally undergo low-level disinfection. Examples are stethoscopes, crutches, wheelchairs, scales, thermometers, exam tables, IV poles, countertops, and other surfaces."



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CURRENT POLICIES

Policy INp-38:

"All contaminated areas will be wiped down with hospital approved disinfectant before reuse."

"Environmental and equipment surfaces are to be cleaned by staff when contamination occurs and on a routine basis."



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SIGNIFICANCE

There is currently no policy stating how to properly clean your Vocera



Staff are not held to an expected standard of caution and cleanliness



Increase in pathogenic growth on Voceras



Potential increase of healthcare-associated infections

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WHAT WE DID

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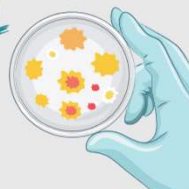


POST-ANESTHESIA
CARE UNIT

HEMATOLOGY
ONCOLOGY

SHORT STAY

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WHAT WE DID

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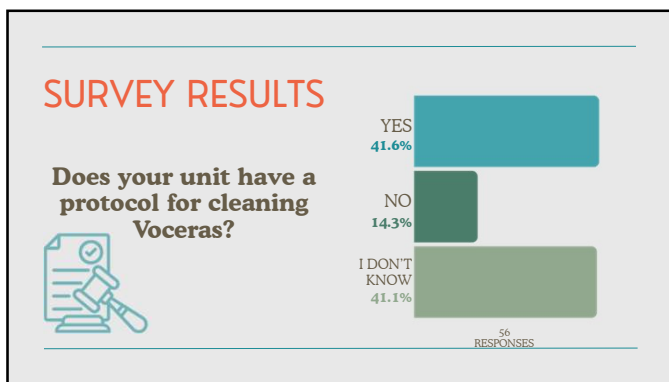
Cleaned Voceras following manufacturer guidelines and Cook Children's Medical Center approved disinfectants

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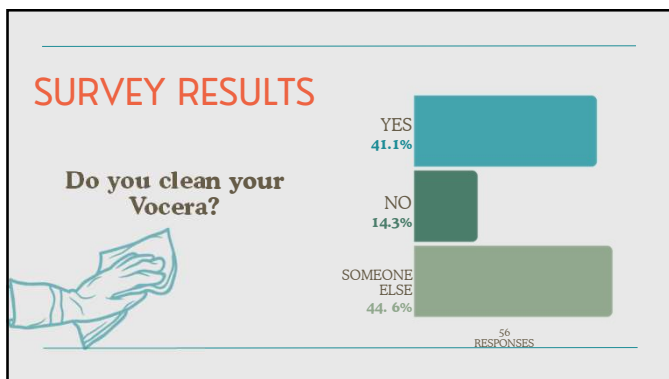
Determined a need for education and a policy to standardize Vocera cleaning at Cook Children's Medical Center



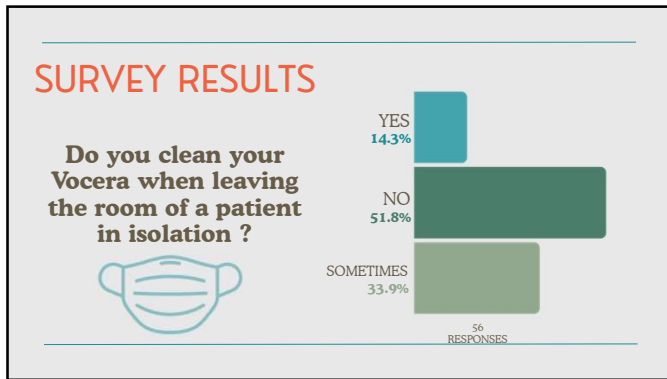
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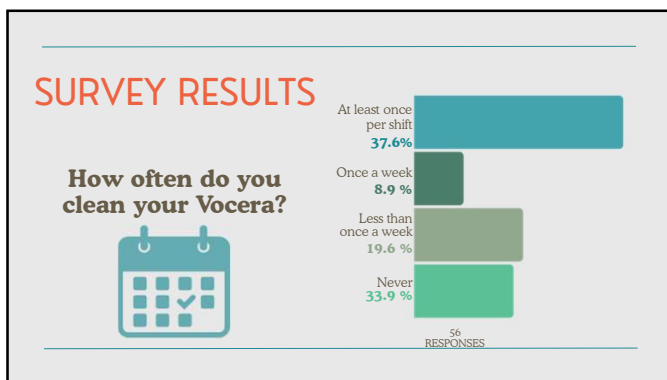
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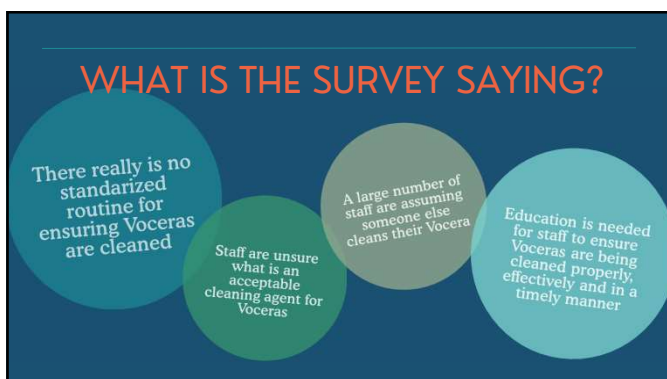
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BATTLE OF THE COLONIES

What is a CFU?
A colony forming unit. A CFU is used as a way to measure bacterial growth where each colony is a cluster of viable bacteria.

Indicates the number of cells that can proliferate and grow

Pre-cleaning		Post-cleaning
ED - 100	V	ED - 1 (70% alcohol)
PACU - 2	S	PACU - 0 (Clorox)
H/O - 2		H/O - 0 (Sani-cloth)

Most common growth was coagulase-negative *Staphylococcus* spp. bacteria

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Cleaning Agents

Disinfectants approved by Cook Children's Medical Center

Cavi-wipes
70-90% isopropyl alcohol
Clorox® Wipes



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What's the Hold Up?

Survey results showed the greatest barriers against cleaning their Vocera were...

"Forgetting or not thinking about it"

"Time constraints"

"Lack of readily available cleaning wipes"

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Our RECOMMENDATIONS

Implement a new policy

Quick glance reminder posters

Educational poster

Approved agents readily available

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VOCERA CLEANING POLICY

The purpose of this policy is to increase the compliance of proper Vocera hygiene and reduce the potential for hospital-associated infections.

Voceras need to be cleaned with Cook Children's and Vocera manufacturer approved cleaning products while in use. Voceras are to be cleaned under the circumstances listed below.

- When contamination is suspected
- When visibly soiled
- Before and after a shift involving direct patient care (including inpatient, outpatient and surgical areas)
- After handled inside a patient room under isolation precautions

To clean Voceras

- Use Sani-Wipes, Clorox Wipes, or 70% isopropyl alcohol
- Clean the entire surface, including the touch screen on newer Voceras.
- The surface should remain wet and allowed to air dry per guidelines associated with the selected cleaning agent

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HEY, YOU!

Of those surveyed at Cook Children's, 33.5% of staff report never cleaning their Vocera or cleaning them less than once a week.

You Can Clean Your Vocera With

Sani-Cloth wipes (purple top)
Clorox wipes (green top)
Alcohol wipes (70% isopropyl)

REMINDER

Wet time matters!
Purple top wet time is 2 minutes
Green top wet time is 1 minute
Alcohol wet time is 30 seconds

Are You Cleaning Your Vocera?

Studies have shown that Vocera badges are rarely cleaned after exposure, leading to contamination with potential antibiotic-resistant pathogens.

Vocera badges at Cook Children have shown to grow a variety of organisms.

Cleaning Voceras regularly can reduce potential hospital-associated infections!

When To Clean

Start of your shift
End of your shift
Visibly soiled
Leaving an isolation room

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<https://create.kahoot.it/details/ebp-kahoot/9be10b35-e337-40eb-9036-a1dbb256b974>

Thank you!

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