


Cell Phones in the NICU: How to Eliminate Unwanted Germs

PURPOSE

Evaluate and improve the cleanliness of cell phones used in the Neonatal Intensive Care Unit (NICU)



METHODS

WIPES: Hospital-grade wipes and bleach-free store-brand wipes were tested prior to study to see if effectiveness was similar.

PHONES: 18 phones (10 staff + 8 families) were sampled for bacteria pre- and post-cleaning with a household disinfectant wipe and sent to Microbiology for 2-day incubation.

CASES: Only phones with cases were included. All sides and openings were swabbed with a sterile culturette and saline, then rubbed on a chocolate agar plate.

TIMING: 5 minutes lapsed after cleaning before re-swabbing.

STAFF: One staff member obtained all samples for consistency.

DOCUMENTATION: Photos taken of each phone sample after incubation.

SURVEY: Participants surveyed on phone cleaning habits.

FOLLOW-UP: A sampling was re-cultured one month later to measure compliance.



BACKGROUND

- PREVELANCE:** Most people and many health care workers carry cell phones.
- CARE IMPROVEMENTS:** Strict hand-washing, standard protocols and best practices have been documented to prevent infections, such as central line infections and ventilator-acquired pneumonias.
- SUSCEPTIBILITY:** NICU infants are more susceptible to infections due to immature immunity or invasive procedures that compromise protection from bacteria.
- EXTENDED EXPOSURE:** Infants may stay in the NICU for extended periods of time. They are exposed to many caregivers and may be exposed to other infections.
- BACTERIA:** Cell phone use by family and staff can introduce unwanted bacteria into the NICU, thereby becoming a threat to this high-risk population.

SURVEY QUESTIONS

1) Do you clean your cell phone regularly?
Daily _Weekly_ _Monthly_ _Rarely_ _Never

2) When did you last clean your phone? _____

3) How do you clean your cell phone?
Dry Cloth _Alcohol_ _Household Product_ _Water_ _Other

4) Have you ever used your cell phone in the NICU after hand washing? _Yes_ _No

5) What do you use your phone for in the NICU?
Phone Calls _Texting_ _Camera_ _Internet_ _Email

6) Do you use a gel hand sanitizer after touching your cell phone each time? _Always_ _Rarely_ _Never

7) Are you aware that cell phones carry germs? _Yes_ _No

IMPLICATIONS

COMMUNICATIONS: Standardized cleaning procedure and education posters were developed for staff and families to clean cell phones if using in the hospital.

TESTING: Samples were not tested for exact organism growth, as others have reported typical organisms found.


NOTEWORTHY: Gram staining of colonies tend to reveal a predominance of Gram-positive *cocci*, and occasional spore-forming rods. There are several coagulase-negative *Staphylococci* and some *Bacillus* species found on cell phones in micro-colonies. Research on exact organisms and cross-contamination infections could enhance this information.

CONCLUSIONS


- PROCESS MATTERS:** A standardized cleaning process with a surface disinfectant significantly reduces the amount of germs and potential transmission of nosocomial pathogens.
- IMPORTANCE:** Exercise illustrates the importance of cell phone hygiene for high-risk populations.
- EDUCATION:** The implementation of a simple cleaning process has been an easy and effective way to rid unwanted organisms from cross-contamination and infection.

CLEANING FREQUENCY	
DAILY	2
WEEKLY	4
MONTHLY	1
RARELY	9
NEVER	1

RESULTS



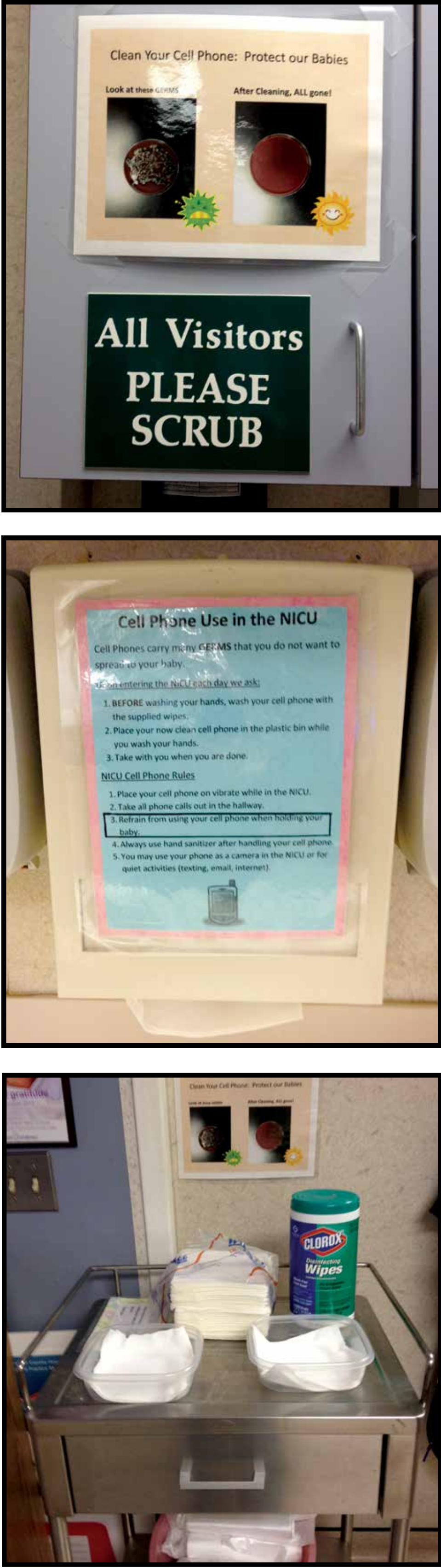
BEFORE



AFTER

BEFORE: Microbial surface contamination was evident on every phone tested prior to disinfecting.

AFTER: All phones were significantly less contaminated after disinfection.



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NICU FAMILY GUIDELINES

- Families instructed to clean their cell phone PRIOR washing hands. Cleaning is expected, once daily.
- Unit Coordinator is the primary person to educate, similar to the hand washing instructions. Nurses and staff provide support.
- Upon arrival, family members use Lysol wipes to clean the outside of the phone, and then place it into a “clean bin” next to the wipes.
- Family members wash their hands at the scrub sink; then their cell phone can be retrieved from the bin.
- After taking pictures, texting or web surfing, family members use Purell on their hands.
- No cell phone calls are permitted inside the NICU. All calls are taken outside the unit in the hallway, family waiting area or parent room.
- Cell phones are on vibrate mode in the NICU.

NURSING EXPECTATIONS

- Exercise discretion** using cell phones and devices at work. Excessive calls or texts during work interferes with work, patient safety, and can be distracting.
- Limit personal communication** to breaks or meals in non-work areas. It is recognized that cell phone are used for medication libraries, calculators and other work-related calls.
- Don’t take pictures** or share patient information via cell phone, email or text.
- Clean personal cell phone** upon NICU entry every day, PRIOR to hand washing.
- Wash or Purell hands** after cell phone use.