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)

**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.

**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 included. All phones were tested prior to study to see if bleaching was similar.
- **HOLD DISINFECTANT WIPES:** Wipes and swabs were in place for pre- and post-cleaning with a housekeeping wipe.

**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_  

**SURVEY RESPONSES**

**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.

**IMPLICATIONS**
- 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 phones 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 PRIOR to hand washing.
- Wash or Purell hands after cell phone use.

**RESULTS**

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

**AFTER:** All phones were significantly less contaminated after disinfection.

**SURVEY:** Participants surveyed on phone cleaning habits.

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

**NURSING EXPECTATIONS**
- 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.