PUTTING THE "ABLE" IN CLEANABLE

IPAC-CSO EDUCATION DAY

APRIL 12, 2018

PRESENTED BY

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I have no conflict of interest to declare.

The goal of this presentation is to highlight practical challenges in achieving best practice cleaning standards in a healthcare setting. It is not intended to endorse or denounce any particular cleaning or disinfection product or method.
WARNING
RECOMMENDATIONS FOR SURFACES

- PIDAC (2012/2018)
  - EASE OF MAINTENANCE AND REPAIR
    - DURABLE, EASY TO MAINTAIN/REPAIR
    - FABRIC TEARS, SCRATCHES OR CHIPPED SURFACES ALLOWS FOR ENTRY/ACCUMULATION OF ORGANISMS
    - ITEM CANNOT BE PROPERLY CLEANED
RECOMMENDATIONS FOR SURFACES

• PIDAC (2012/2018)
  • EASE OF MAINTENANCE AND REPAIR
  • CLEANABLE
    • FLUID RESISTANT, NON-POREUS
    • ABLE TO WITHSTAND REPEATED CLEANING
    • COMPATIBLE WITH HOSPITAL-GRADE DISINFECTANTS
RECOMMENDATIONS FOR SURFACES

• PIDAC (2012/2018)
  • EASE OF MAINTENANCE AND REPAIR
  • CLEANABLE
  • RESISTANT TO MICROBIAL GROWTH
    • METALS, HARD PLASTICS
    • MATERIALS THAT DO NOT HOLD MOISTURE
    • AVOID WET ORGANIC SUBSTRATES (WOOD)
RECOMMENDATIONS FOR SURFACES

• PIDAC (2012/2018)
  • EASE OF MAINTENANCE AND REPAIR
  • CLEANABLE
  • RESISTANT TO MICROBIAL GROWTH
  • NONPOROUS
    • POROUS UPHOLSTERED FURNITURE SHOULD NOT BE USED IN PATIENT CARE AREAS
RECOMMENDATIONS FOR SURFACES

• PIDAC (2012/2018)
  • EASE OF MAINTENANCE AND REPAIR
  • CLEANABLE
  • RESISTANT TO MICROBIAL GROWTH
  • NONPOROUS
  • SEAMLESS
    • SEAMS CAN HARBOUR BACTERIA & ARE DIFFICULT TO CLEAN
``If you can`t clean it, don`t buy it``
THE CYCLE

- FLUCTUATING HOSPITAL-ACQUIRED RATES OF MRSA, VRE, AND C. DIFF
  - CLEANING WOULD BE STEPPED UP, IN ADDITION TO OTHER MEASURES, IN IMMEDIATE RESPONSE TO HAI CONCERNS
    - RESULTED IN SHORTER-TERM IMPROVEMENT
ON THE HUNT FOR ENVIRONMENTAL RESERVOIRS

• CAN PERSIST FOR EXTENDED PERIODS OF TIME

• INCREASE LIKELIHOOD OF TRANSMISSION
How well are we really able to clean items that do not meet PIDAC best practice recommendations?
ON THE HUNT FOR ENVIRONMENTAL RESERVOIRS

62 specimens were sent
- 4 controls (2 MRSA, 2 C. diff)
  - Cloths were randomly bagged as controls to monitor for inadvertent contamination of supply during specimen collection
- 29 for MRSA
- 29 for C. diff
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The chair was immediately removed from service. Its now resting in pieces.
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RESULTS

• 3 SPECIMENS POSITIVE FOR MRSA
  • CORK BOARD IN A PATIENT ROOM
  • WOODEN HANDLED CHAIR IN A KNOWN MRSA ROOM
    • BEDRIDDEN PATIENT
    • CHAIR APPROX. 1 METRE FROM THE END OF THE PATIENT'S BED
  • FABRIC CHAIR IN NURSING STATION CONFERENCE ROOM
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RESULTS

• 3 SPECIMENS POSITIVE FOR *C. DIFF*
  • RIBOTYPES 020, 027, 014
  • SAME FABRIC CHAIR IN NURSING STATION CONFERENCE ROOM
  • WOODEN TABLE IN PAEDIATRICS
  • PHYSIO TRANSFER BOARD
RESULTS

• ON THE C. DIFF PLATES:
  • 2/29 SPECIMENS WERE POSITIVE FOR ANAEROBIC SPORE-FORMING BACTERIA
  • BOTH FROM WOODEN ROCKING CHAIRS
    • PAEDS
    • FAMILY BIRTHING UNIT
RESULTS

• ON THE C. DIFF PLATES:
  • 2/29 SPECIMENS WERE POSITIVE FOR ANAEROBIC SPORE-FORMING BACTERIA
  • BOTH FROM WOODEN ROCKING CHAIRS
    • PAEDS
    • FAMILY BIRTHING UNIT
RESULTS

• ON THE MRSA PLATES:
  • 25/29 SPECIMENS WERE POSITIVE FOR OTHER ORGANISMS
  • AS MANY AS 5 COLONY TYPES FROM ONE SPECIMEN

• FABRIC DESK CHAIR FROM HALLWAY DOCUMENTATION STATION
• VINYL DESK CHAIR AT NURSES’ STATION
Bacillus/Enterococcus sp.
Bacillus/Enterococcus sp.
Bacillus/Enterococcus sp., Coag-neg. Staph, + ?

Micrococcus sp., Bacillus/Enterococcus sp.

Bacillus/Enterococcus sp.

Bacillus/Enterococcus sp.
Bacillus/Enterococcus sp., Coag-neg. Staph, + ?

Bacillus/Enterococcus sp.

Micrococcus sp., Bacillus/Enterococcus sp.
ELECTRONICS

• MINIMALLY INVASIVE (HYBRID) VASCULAR OR
  • BANK OF 4 LCD SCREENS THAT SITS WITHIN ABOUT ½ METRE OF THE PATIENT

• LCD SCREENS WERE SHOWING SIGNS OF DAMAGE
  • RISK TO PATIENT SAFETY FROM LACK OF ACUITY IN VISUALIZING ANATOMICAL IMAGES
  • RISK TO PATIENT SAFETY FROM NOT PROPERLY DISINFECTING SCREENS
“CLEAN ONLY WITH STERILE WATER”
“CLEAN ONLY WITH STERILE WATER”
USING TECHNOLOGY TO HIGHLIGHT THE ISSUE IN CLEANING TECHNOLOGY

• ATP MONITOR REVIEW

  – MEASURES “ADENOSINE TRIPHOSPHATE (ATP) BIOLUMINESCENCE”

  • MEASURED USING AN ENZYME REACTION WHICH OCCURS NATURALLY IN THE TAIL OF FIREFLIES (“FIREFLY TECHNOLOGY”)

  • LUMINOMETER MEASURES THE AMOUNT OF LIGHT PRODUCED

  • AMOUNT OF LIGHT IS PROPORTIONAL TO THE AMOUNT OF ATP PRESENT
USING TECHNOLOGY TO HIGHLIGHT THE ISSUE IN CLEANING TECHNOLOGY

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ONCE WE GET ITEMS/EQUIPMENT THAT CAN BE CLEANED, WHAT DO WE CLEAN THEM WITH?
FOLLOW THE MANUFACTURERS’ INSTRUCTIONS!
INAPPROPRIATE CLEANING INSTRUCTIONS:

• “INCOMPATIBLE WITH MOST HOSPITAL- GRADE DISINFECTANTS”
  • PIECE OF EQUIPMENT TO BE USED IN THE OR!

• SPRAY ALCOHOL (????)

• CONCENTRATION OF BLEACH NOT COMMERCIALY AVAILABLE AS PREPARED WIPE

• SOLUTIONS RANGING FROM PHENOLICS TO STERILE WATER FOR THE SAME PIECE OF EQUIPMENT BUT NOTHING PRACTICAL

• USE LCD WIPE ONLY (ELECTRONIC TOUCH SCREENS)
PUTTING THE **ABLE** IN CLEANABLE CHALLENGES

- PRACTICAL ISSUES WITH MULTIPLE BRANDS OF DISINFECTANT WIPES/CLEANING PRODUCTS
  - STORAGE
  - AVAILABILITY/CONVENIENCE
  - CORRECT USE/APPLICATION
- NO GUARANTEES THAT THE CORRECT PRODUCT WILL BE USED ON A PARTICULAR PIECE OF EQUIPMENT
PUTTING THE ABLE IN CLEANABLE

• CHECK WITH EQUIPMENT MANUFACTURER
  • HAS THE CLEANING PRODUCT(S) YOUR ORGANIZATION USES BEEN TESTED ON THEIR EQUIPMENT?

• WORK WITH CLEANING PRODUCT COMPANY
  • MAY BE ABLE TO APPROACH MANUFACTURER TO DO TESTING
  • MAY HAVE ALREADY TESTED THEIR CLEANING PRODUCT ON THE SAME OR SIMILAR SURFACE MATERIAL AS THE EQUIPMENT BEING PURCHASED
PUTTING THE ABLE IN CLEANABLE

• REQUIRES COLLABORATION AND TEAMWORK BETWEEN STAKEHOLDERS TO ENSURE THAT WE PROVIDE SAFE, CLEANABLE HEALTHCARE

• WE’RE IN THIS TOGETHER!
Questions?