




DISINFECTION DUKE OUT

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J Gauthier
Diversey

T Wong:
Merck
Pfizer
Teck
bioMérieux
Theravance
Steriliz
Accerlerate Dx

DISCLAIMER:
The views presented are to generate discussion and does not necessarily fully represent the opinions of the speakers

DISCLOSURES

Objectives

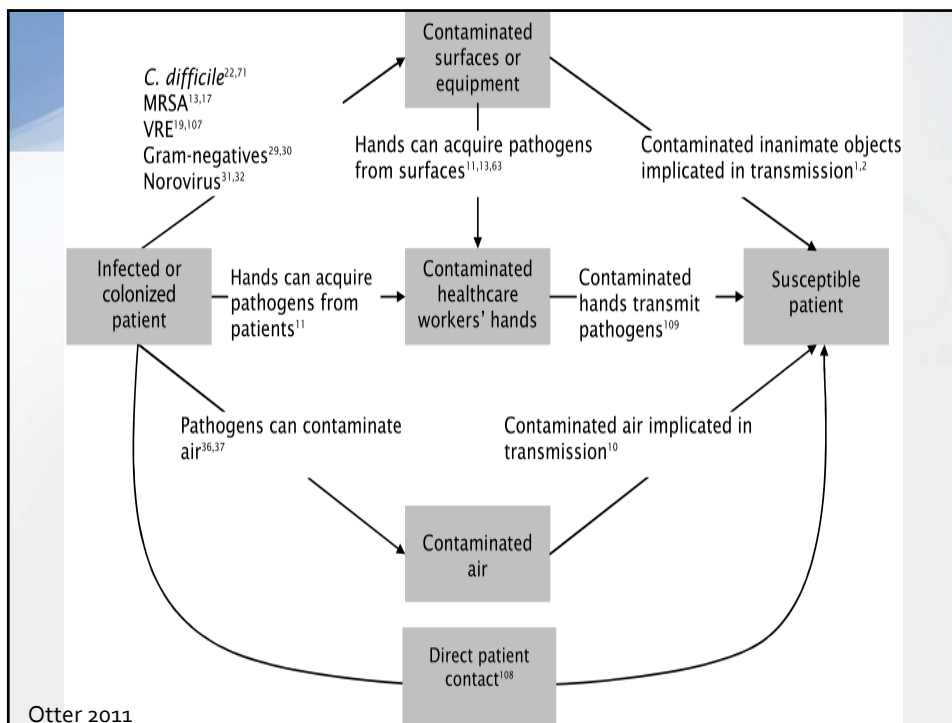
- **Jim:** Argue for the use of liquid disinfectants
- **Titus:** Argue against the use of liquid disinfectants
- **Jim and Titus:** Rebuttal
- **You:** Audience Questions (and cheers)

Divine Disinfectants

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Diversey

The Environment

- Not thought to play a role for quite a few years
- Otter (2011)
 - Reviews evidence of pathogens and potential pathogens shed into environment
 - Notes that survival is days, weeks, months



What do the Experts Say?

- PHAC
 - Detergent disinfectants with a Drug Identification Number (DIN) that have microbiocidal (i.e., killing) activity against the pathogens most likely to contaminate the patient care environment should be used.

PICNet

- Good language on how to use, and select a disinfectant.
- Lots of choices
 - Daily Clean,
 - Routine Daily Clean,
 - Routine Discharge Clean,

PICNet

- Additional Precaution Daily Clean,
- Enhanced Daily Clean,
- Additional Precautions Discharge Clean,
- Additional Precautions Daily Clean with Sporidical,
- Additional Precautions Discharge Clean with Sporidical,
- Scheduled Clean

PICNet

- Most of these are with a cleaner/disinfectant
- Also include a risk assessment and 'Situation/Area

PIDAC

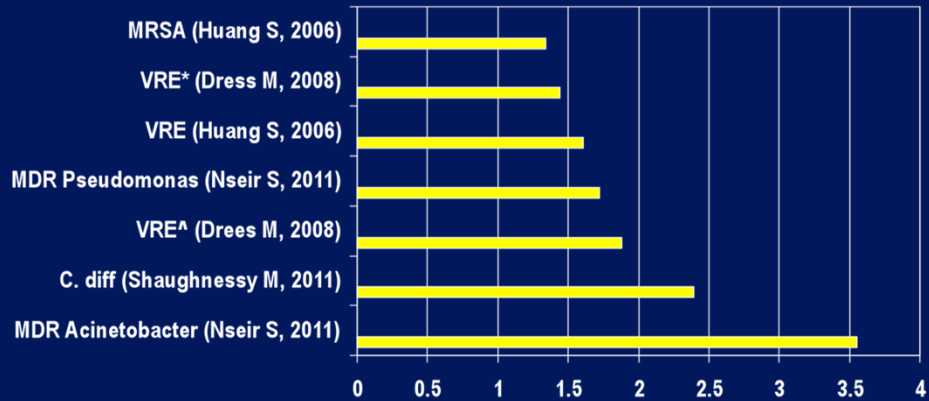
- **Hotel Clean** is a measure of cleanliness based on visual appearance that includes dust and dirt removal, waste disposal and cleaning of windows and surfaces.

PIDAC

- **Hospital Clean** is a measure of cleanliness routinely maintained in care areas of the health care setting.
- Hospital Clean is *Hotel Clean* with the addition of disinfection, increased frequency of cleaning, auditing and other infection control measures in client/patient/resident care areas

Risks Associated with the Environment

Patients admitted into a room previously occupied by colonized or infected patient were significantly more likely to contract an infection



* Prior room occupant infected; ^Any room occupant in prior 2 weeks infected (Otter 2013)

Clean or Disinfect?

- Alfa (2015) compared a daily cleaner with a cleaner/disinfectant.
 - Cleaning compliance at $\geq 80\%$
 - Staff trained with clear protocols

Use of Cleaner/Disinfectant Reduced HAIs

First Clinical study to show that improved compliance with environmental surface disinfection using IHP reduced HAI rates for VRE, MRSA and *C. difficile*

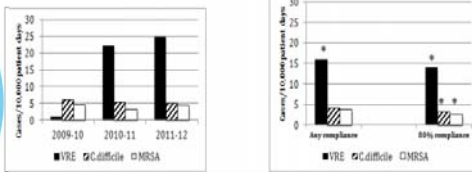
Use of daily disinfectant-cleaner instead of daily cleaner reduced hospital acquired infection rates

3 key components to ensure reduction of HAIs

HAI Rates with Cleaner only

HAI Rates with Disinfectant Cleaner in 2012-13

All rates reduced by > 20%



* Significant reduction in VRE rates (any cleaning compliance), and significant reduction of C.difficile and MRSA rates when a minimum of 80% cleaning compliance achieved.

A clearly defined protocol with education

Compliance monitoring with staff feedback

The use of an effective disinfectant cleaner

Cost avoidance of \$668,000/year due to HAI rate reduction





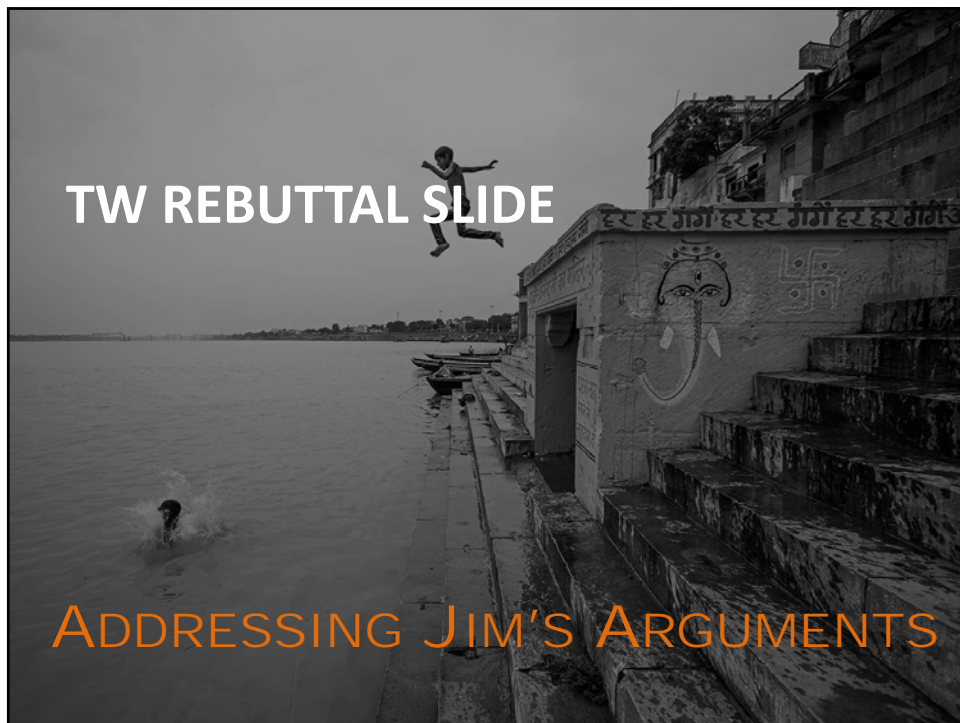




SUMMARY

- 1 The patient environment is an important factor in infection prevention
- 2 Must critically evaluate evidence to challenge status quo
- 3 Liquid disinfectants have safety and practical limitations
- 4 New technologies like UVC and self-disinfecting surfaces offer promising alternatives

REBUTTAL SLIDE - JIM



References

- Alfa MJ, et al. Use of a daily disinfectant cleaner instead of a daily cleaner reduced hospital-acquired infection rates. *AJIC* 2015;43:141-6
- Dettenkofer M. Healthcare environment decontamination. *Health Infect* 2013;18:47-8
- Otter JA, et al. The Role Played by Contaminated Surfaces in the Transmission of Nosocomial Pathogens. *ICHE* 2011;32(7):687-99

References

- Otter JA, et al. Evidence that contaminated surfaces contribute to the transmission of hospital pathogens and an overview of strategies to address contaminated surfaces in hospital settings. *AJIC* 2013;41:S6-S11