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**Dr. William Rutala, Ph.D., M.P.H.**  
at the 2009 APIC Convention,  
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The complete presentation can be found at  
[www.disinfectionandsterilization.org](http://www.disinfectionandsterilization.org)

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Martin S. Favero Lectureship  
**Disinfection and Sterilization:**  
Successes and Failures

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Disclosure: Clorox, Advanced Sterilization Products

# UV Room Decontamination

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- Fully automated, self calibrates, activated by hand-held remote
- Room ventilation does not need to be modified
- Uses UV-C (254 nm range) to decontaminate surfaces
- Measures UV reflected from walls, ceilings, floors or other treated areas and calculates the operation time to deliver the programmed lethal dose for pathogens.
- UV sensors determine and target highly-shadowed areas to deliver measured dose of UV energy
- After UV dose delivered, will power-down and audibly notify the operator
- Reduces colony counts of pathogens by >99.9% within 20 minutes



# Room Decontamination with UV

(Rutala, Gergen, Weber, 2009, Unpublished Results)

<b>Organism</b>	<b>Dose Reading (time)</b>	<b>Log<sub>10</sub> Reduction (10 sites, 5 replicates)</b>
<b>MRSA</b>	<b>~470 mj/cm<sup>2</sup> (~15m)</b>	<b>3.91</b>
<b>VRE</b>	<b>~600 mj/cm<sup>2</sup> (~15m)</b>	<b>3.36</b>
<b><i>Acinetobacter</i></b>	<b>~630 mj/cm<sup>2</sup> (~14m)</b>	<b>3.77</b>
<b><i>C. difficile</i></b>	<b>~2120 mj/cm<sup>2</sup> (~50m)</b>	<b>2.67</b>