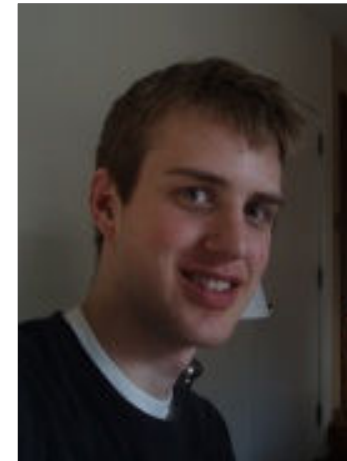


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Microbiology, CBS, 2009  
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Safety

## *Infection Control Quality Assurance in the Patient Care Environment using ATP Bioluminescent Technology*

The need for strict infection control measures is becoming of increasing importance due to the emergence in the spread of infectious antibiotic resistant bacteria and viruses. State Health Departments are beginning to require that hospitals monitor cleaning efficacy to validate environmental disinfection protocol. Since visual assessments are not a good indicator of cleanliness ATP (Adenosine Triphosphate) bioluminescent surface hygiene monitoring has been developed. ATP is the energy currency molecule that is present in all living cells. ATP bioluminescent testing can detect ATP concentrations through a light producing reaction read as RLU (Relative Light Unit). This study found that ATP bioluminescent testing detected a statistical significant difference in RLU values between occupied rooms and cleaned discharged rooms. A decrease in RLU values from occupied to discharged rooms was shown in median values for the five surfaces tested. The real time ability of ATP bioluminescent testing to monitor cleaning permits for practical assessment of cleaning validation and training. Applications of ATP bioluminescent testing will emphasize outliers indicating high levels of ATP because they are considered more likely to be potential sources of infectious contamination. A study is currently being conducted to examine ATP bioluminescent testing in the response of bodily fluid discharge incidents associated with infectious disease symptoms to assure proper infection control. The application of this technology will be incorporated into quality management of infection control protocols for UMMC-Fairview.



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