Development of Performance and Design Criteria for Isolation Gowns - FY12 (939ZUND)

Objective

To provide the basis for and recommend appropriate design and performance criteria for isolation gowns

Applicable Standards

- OSHA 1991
- ASTM F23
- AAMI PB 70
- AATCC Standards

Stakeholders

- Healthcare workers
- Infection control professionals
- Manufacturers
- Standard Development Organizations

Key Partners

- ASTM F23 Committee
- Vestagen Technical Textiles
- Kimberly Clark
- UC Davis
- APIC
- The Joint Commission
- AORN
- AAMI

Project Scope

- Identify the specific hazards and use conditions
- Determine the performance, design and integration properties needed to demonstrate effectiveness
- Select and develop appropriate test methods to measure performance properties
- Establish design and performance criteria for isolation gowns including integration and interoperability that ensure an appropriate level of protection based on the results and user expectations
- Communicate recommended test methods and criteria to the ASTM F23 Committee on isolation gowns and other industry stakeholders for use in standards

Milestones FY12

- Q1 APIC Survey, literature review, set up equipment for testing
- Q2 Write protocol, begin ordering test samples, demonstrate capability to do routine blood penetration testing
- Q3 Submit protocol for external peer review, develop test plan, draft a review paper, conduct viral penetration testing
- Q4 Address reviewers' comments, set testing equipment in Morgantown, initiate testing, submit the manuscript for publication

Outputs

- Final report with technical data used by ASTM F23 Committee
- Manuscripts published in peer-reviewed journals (none to date)
- Presentations at national/international conferences (3)
  - A presentation was made at Jefferson School of Public Health (June, 2011)
  - An abstract was submitted for poster presentation at the 39th Annual APIC Educational Conference and International Meeting (June, 2012)

Outcomes

- Healthcare workers use project outputs to select and use ensembles
- Manufacturers use the outputs to develop and /or improve current isolation gowns
- Consensus standards development organizations (ASTM, ISO, ANSI, AAMI), government agencies (FDA, etc.) and professional organizations (AORN, APIC, The Joint Commission) use recommended performance requirements to develop standards and / or guidance documents
- Other researchers utilize the findings to initiate research on more effective healthcare worker personal protective ensembles.