

Development of Performance and Design Criteria for Isolation Gowns - FY15 (939ZNRT)

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

Key Partners

- ASTM F23 Committee
- Vestagen Technical Textiles
- Kimberly Clark
- United Hospital Services

Stakeholders

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



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 FY15

- Q1 Validate AATCC 42 test results, begin laundering reusables
- Q2 Present findings at ASTM meeting, begin testing reusable gowns, present disposable part at APIC Conference, and validate AATCC 127 test results
- Q3 Complete THL testing of disposable and reusable gowns, submit manuscript for the disposable part, complete laundering
- Q4 Complete Phase I physical testing for reusables, start Phase II thermal manikin test, submit a paper describing APIC survey results

Outputs

- Final report with technical data used by ASTM F23 Committee for the development of a new ASTM standard on isolation gowns
- Manuscripts published in peer-reviewed journals (2 submitted, 2 in preparation, expected min # of publications:6)
- Presentations at conferences and SDO's committee meetings (3 so far)
 - Building the Chain of Safety, Jefferson School of Public Health (2011)
 - 39th Annual APIC Educational Conference & International Meeting (2012)
 - ASTM F23 Meeting (January, 2014)
- Published a NIOSH Science Blog (1700 views and 7 comments since May 5, 2014)

Outcomes

- 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
- Healthcare workers use project outputs to select and use ensembles
- Manufacturers use the outputs to develop and /or improve current isolation gowns and use test results to improve manufacturing processes
- Other researchers utilize the findings to initiate research on more effective healthcare worker personal protective ensembles.