

Reusability of Filtering Facepiece Respirators FY12 (939ZUNL)

Objectives

- Examine the efficacy and effect of simple decontamination procedures for filtering facepiece respirators (FFR)
- Examine the risks associated with handling an FFR exposed to viral aerosols



Applicable Standards

- ASTM E2720 – 10 / E2721 – 10
- NIOSH 42 CFR Part 84
- ISO TC94/SC15
- OSHA 1910.134

Stakeholders

- Healthcare workers
- Hospital administrators
- Policy makers
- General public
- Manufacturers

Key Partners

- FDA
- EPA
- ASTM
- TSWG (funding)
- AFRL
- OSHA

Project Scope

- Select appropriate decontamination methods for testing
- Determine effect of decontamination on FFR filtration performance
- Test protocol for measuring the efficacy of decontamination
- Measurement of the viability of viruses trapped on FFR
- Measurement of the reaerosolization of trapped viruses
- Decontamination method optimization
- Determine effect of decontamination on FFR fit

Milestones FY12

- Q2 Submit BARTS-II validation paper to journal
- Q3 Submit manuscript comparing decontamination effectiveness from various deposition methods to journal
- Q4 Project completed.

Outputs

- Manuscripts published in (15), submitted to (1), and in development for (1) peer review journals.
- Presentations/posters at conferences (12), Standards committee & public meetings (6)
- Contractor reports (Battelle report completed July 2008)

Outcomes

- This project has been used by HPA, APIC, and VHA to provide the scientific basis for recommendations and guidance documents related to FFR reuse and handling
- The methodologies developed in this project were utilized by ASTM for the development of new test methods for assessing the efficacy of decontamination. ASTM E2720-10 and E2721-10
- Manuscripts from this project have been cited 47 times in the peer-reviewed literature according to Science Citation Index

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