

POF010: General platform presentation

**Factors Relevant to Elastomeric Respirator Selection and Use
in Healthcare Identified by Qualitative Data Methods.**

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Abstract

Background:

Elastomeric respirators (elastomerics) may serve as one alternative to disposable N95 respirator use in healthcare. We explored factors which drove elastomeric adoption and continued use in a large academic medical center.

Methods:

We conducted semi-structured and focus group interviews in 2015 with a) 11 leadership key informants (KIs) with involvement in the respiratory protection program (RPP) when elastomerics were introduced and b) 11 healthcare workers (HCWs) recruited from hospital departments assigned to use elastomerics. Interview transcripts and responses were open-coded to capture emergent themes, which were collapsed into broader categories and iteratively refined.

Results:

Factors identified by leadership KIs as influencing elastomeric adoption included: 1) N95 shortages during 2009's H1N1 influenza pandemic and 2) respirator subject matter knowledge of the safety staff. Factors identified as influencing ongoing use of elastomerics included: 1) cleaning/decontamination practices, 2) storage, 3) safety culture, 4) HCW respirator knowledge, and 5) risk perception. HCW users expressed dissatisfaction related to breathing, communication and cleaning of elastomerics. Other themes included convenience use of N95s rather than assigned elastomerics, despite perceptions that elastomerics are more protective.

Conclusions:

Semi-structured and focus group interviews are validated qualitative methods that can identify key elements for inclusion in questionnaires intended for quantitative surveys. Through these methods, we learned that 1) leadership introduced elastomerics due to necessity but now face challenges related to ongoing use, and 2) HCWs were unsatisfied with elastomerics and preferentially used N95s out of convenience. Although the impetus behind incorporation of elastomerics was clear, the most complex themes related to sustainability of this form of RPP.

These themes were used to inform a broader questionnaire to be deployed to the full HCW respirator user population and will address the utility of elastomerics as a feasible and desirable practical alternative to N95s in healthcare.