

A Multidisciplinary Effort to Improve P APR Availability and Maintenance

The Problem

Emerging infectious diseases, such as Ebola and Middle Eastern Respiratory Syndrome (MERS) coronavirus, increase the demand for respiratory protection. In addition, healthcare workers (HCW) at BIDMC care for patients daily on airborne isolation for more common infections, such as tuberculosis. All HCW1, 2 and 3 are now required to be fit tested annually by OSHA. HCW who are unable to pass a fit test for an N95 respirator must wear a Powered Air Purifying Respirators (PAPR). Last year alone, 376 HCWs fell into this category. PAPR availability and maintenance were raised as concerns after a specific incident involving a patient on Code 1 Isolation for possible MERS in July 2015.

Goals

To improve the processes for obtaining and maintaining PAPR at our institution and to mitigate the potential and actual risks to patient care operations. These risks include a delay in delivery of patient care, HCW exposures to potentially transmissible infectious pathogens, disruption of workflow to multiple departments, and workarounds and shortcuts by front-line staff.

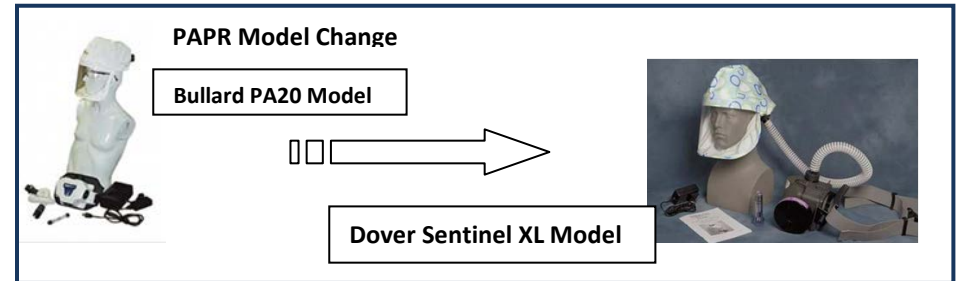
The Team

Emergency Management	Materials Management/Distribution
Environmental Health & Safety	Technology Management (Paul Anderson)
Infection Control/Hospital Epidemiology	Respiratory Therapy

The Interventions

Multidisciplinary meetings began in Nov 2015 to assess and resolve the issues around PAPR availability and maintenance.

- Standardize all PAPR from Bullard PA20 model to Dover Sentinel XI model
- Create accountability by using RFID tagging on PAPR
- Provide instructions for use, including donning/doffing and how to obtain additional materials at the point-of-use
- Educate clinicians and distribution staff on the new model



Progress to Date

- 10 Dover model PAPRs have been purchased and are on the HIMDE list of medical equipment
- PAPRs have been RFID tagged
- EH&S and Infection Control are planning education sessions for clinicians and distribution staff
- Distribution leadership has been familiar with the new equipment and staff responsibilities

Lessons Learned

Standardization

- Improves safety by minimizing variability in practice
- Allows for one education plan

Communication

- Front line staff need to know who to contact for resources to avoid workarounds and shortcuts
- Key departments should be notified when a patient is placed on a type of precautions (such as Code 1 Isolation) that may increase need for PAPRs

Considerations for Next Steps

- Train clinicians and distribution staff on the new model PAPR
- Upload training video on to MyPath
- Create PAPR donning/doffing cards for ID badges
- Discuss methods to potentially decrease the number of HCW required to be fit tested annually in order to decrease demand for PAPR
- Increase PAPR availability to off-site locations