PAPRS and PANDEMICs: The Infection Preventionist Perspective

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The Association for Professionals in Infection Control and Epidemiology (APIC) is the leading professional association for infection preventionists (IPs) with more than 15,000 members. **Our mission** is to create a safer world through the prevention of infection. This is achieved by the provision of better care to promote better health at a lower cost.

Most APIC members are nurses, physicians, public health professionals, epidemiologists, microbiologists, or medical technologists who:

- Collect, analyze, and interpret health data in order to track infection trends, plan appropriate interventions, measure success, and report relevant data to public health agencies.
- Establish scientifically-based infection prevention practices and collaborate with the healthcare team to assure implementation.
- Work to prevent healthcare-associated infections (HAIs) in healthcare facilities by isolating sources of infections and limiting their transmission.
- Educate healthcare personnel and the public about infectious diseases and how to limit their spread.
APIC Position Paper: Extending the Use and/or Reusing Respiratory Protection in Healthcare Settings During Disasters

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Advantages
• provide eye protection
• are comfortable to wear
• allowing use if the employee has facial hair
• do not requiring fit-testing

Disadvantages
• impede ability to auscultate patients’ heart and lungs
• limit ability to communicate when wearing the device
• may cause patient apprehension (especially among pediatric patients)
• require training on proper use and care
• must be decontaminated according to the manufacturer’s instructions after each use
• require storage, power, and batteries
• are more expensive
“Infectious Disease” PAPRs
• Prioritize allocation of N95 respirators and masks based on exposure risk.

• The time to plan is now.
• When respirator/mask supplies are scarce or insufficient even after the facility has
  – obtained additional supplies from local, regional, or national sources, and
  – examined the feasibility of reusable respirators (PAPRs, elastomeric respirators, etc.)

• APIC recommends that facilities:
  – implement extended use and/or reuse procedures
  – create and follow protocols to prioritize healthcare personnel to receive respirators/masks based on their exposure risk
  – determine exposure risk based on the facility’s exposure risk analysis that is part of emergency management planning, including personnel’s immune status
Respiratory Hygiene and Cough Etiquette

- Visual Alerts
- Respiratory Hygiene/Cough Etiquette
- Masking* and Separation of Persons with Respiratory Symptoms

*Either procedure masks (i.e. with ear loops) or surgical masks (i.e. with ties) may be used to contain respiratory secretions (respirators such as N-95 or above are not necessary for this purpose)
PERSONAL EXPERIENCES
• Enacted August 2009
• Immunization Requirements
• Respiratory Protection
Subsection (g)(3)(B):

- Requires PAPRS for high hazard activities for suspect or confirmed airborne infections

- High hazard activities
  - Sputum Induction
  - Bronchoscopy
  - Aerosolized administration of medications
  - PFT
  - Other procedures that may aerosolize pathogens

CalOSHA: §5199
Aerosol Transmissible Diseases
• EXCEPTION 1 to subsection (g)(3)(B): Enclosing the patient

• EXCEPTION 2 to subsection (g)(3)(B): Paramedics and other emergency medical personnel in field operations may use a P100, R100 or N100 respirator in lieu of a PAPR
- PAPR rule was not yet in effect
- Authorized reuse of N95s
- Required training of staff
- Staff had to be fit tested again if different style of N95 brought in
- No reports of occupationally-acquired infection in my facility
• PAPRS are part of the personal protective equipment armory

• May be preferentially considered for high risk (aerosol producing) procedures and activities

• Are not a panacea during pandemics
Top 3 barriers to, or opportunities to improve, effective usage of PAPRs in health care settings:

• Size of battery/power packs, hoods
  – Female workers
  – Storage

• Easy to clean and disinfect

• Noise of unit
Top idea to improve NPPTL certification

• Consider Healthcare special needs