



**POWERED  
AIR  
PURIFYING  
RESPIRATORS  
PAPR**

Students



# Objectives

By the end of this CBL you will be able to:

1. State indications for PAPR use.
2. Identify donning and doffing procedures.
3. Identify cleaning and disinfection procedures.
4. Comply with OSHA regulations.



# Information

- MAXAIR is an advanced respiratory protection system meeting all OSHA PAPR requirements for hospital infection control, emergency preparedness, ED, Employee Health and Safety, and aerosol generating procedures.
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- The Maxair PAPR system is designed only for Air particulates and is not used for fumes or vapors.



# Features

- Comfortable
  - Adjustable air flow
- Convenient
  - Freedom of movement
- Cost Effective
  - No fit testing required
- Safe
  - High Efficiency level filtration. Minimized CO2 buildup
- Stethoscope compatible



# Personal Protective Equipment

- Healthcare workers who enter an “airborne isolation” room or a droplet isolation room with “enhanced droplet” precautions-  
MUST wear a (PAPR)
- Visitors do not wear PAPRs  
They wear a droplet isolation mask





# Indications: Airborne Precautions

- Patients with **suspected** or confirmed **active** diseases  
**(Examples):**
  - Tuberculosis (active pulmonary or laryngeal TB, suspected active TB disease).
  - Monkey pox, Smallpox, SARS (Airborne + Contact Precautions).
  - Chickenpox (Airborne + Contact Precautions)
  - Disseminated Zoster.
  - Measles, Hemorrhagic fevers (Ebola, Lassa, Marburg).



# Identification

## AIRBORNE PRECAUTIONS

Keep door closed! Applies to everyone entering this room  
**Family and visitors – please talk with a nurse before entering.**

When you enter the room:

1. Put PAPR\* on.
2. Enter through anteroom if present.
3. Wash your hands or use the alcohol foam dispenser.



\*Personal Air Powered Respirator (PAPR)



When you leave the room:

1. Wash your hands or use the alcohol foam dispenser.
2. Clean the PAPR.



Outside the room:

1. Put a surgical mask on the patient before they leave the room.



Surgical Mask

SP1002 rev10/15 DC1741

- Place the Airborne Precautions sign at the entrance of the patient room.



# Indications: Enhanced Droplet Precautions

- If a patient is in droplet isolation for Influenza A or B; you must wear a PAPR *during* the specific procedures listed on sign (see next page)
- The “droplet exposure zone” is estimated to be 6 feet from the patient
- Outside of the procedure/zone you should wear the droplet isolation mask as usual
- Follow PPE & ‘enhanced droplet precautions’ for procedures listed on sign





# Identification

You must wear a PAPR for these procedures with patients in enhanced droplet precautions

**Wear a PAPR when providing any of these procedures.**

**Wear a PAPR all the time when the patient is on CPAP/BIPAP**

## **Wear all the time**

- CPAP
- BIPAP

## **Wear During procedures:**

- Intubation
- Extubation
- Bronchoscopy
- Open suctioning
- Tracheostomy care
- CPR
- Nebulizer treatments
- Sputum Induction

Post this sign on the door when the PAPR is required.  
Store signs with the PAPR when finished with isolation.





# Precautions

Please make sure the Airborne and Droplet isolated patient wears a surgical/droplet mask when outside of their room.

- Such as during a transport to a different department.



Surgical Mask





# Equipment

- **Pulm offices**
  - 2 PAPRs
- **BSH**
  - Patient Care Unit: 1-2 PAPRs
  - Emergency room 1-2 PAPRs
  - Infection Prevention extra PAPRs
- **BLH**
  - Med Surg/Crit Care & ED- carts: 2 / PAPRs: 6 per cart
- **BBC**
  - Med Surg/Crit Care/Surgery- carts: 5 / PAPRs: 6 per cart
  - Emergency room- carts: 1 / PAPRs: 6 per cart
- **BMH**
  - Med Surg- carts: 10 / PAPRs: 3 per cart
  - Crit Care- carts: 2 / PAPRs: 6 per cart
  - Surgery- carts: 2 / PAPRS: 12 per cart
  - Emergency room- carts: 2 / PAPRs: 11 per cart
  - Crit Care- urgent bags: 1 / PAPRs: 1 per bag



# Obtaining Equipment

- BMH, BBC, BLH: Place an order for **Airborne Precautions** in the EHR.
  - An Airborne isolation cart will be delivered to the room.
- BSH
  - the PAPRs will be located in the Patient Care unit & the Emergency Department.
  - Extra PAPRs and supplies may be obtained from the Infection Prevention Department.





# Obtaining Equipment

## Emergency Rooms

- Emergency Departments will not have to enter the order to obtain cart:
  - the PAPRs will be located in the ED's.
- Before transferring patient to room-ED will need to enter order for either **Airborne Precautions or PAPR cart** into the EHR and the Physician/RN will release it prior to patient transfer.
  - Place the inpatient room number in the comments
  - A phone call also ensures carts are ready.



# PAPRs in the Operating Rooms

Operating rooms that are capable of providing Airborne Isolation

- BMH has a PAPR cart in their OR unit.
- BBC will call Equipment Management to obtain a cart; they can also place an order for a '**PAPR Cart**' .
- BLH will call Respiratory Care or House Supervisor/Manager to obtain a cart; they can also place an order for a '**PAPR Cart**' .
- BSH



# PAPRs for the Pulmonary medical offices

- Most Medical offices will not have PAPRs
  - the PAPRs will be located in specific Pulmonary offices only.
  - After locating the PAPR each user will follow the preparation, donning and doffing instructions to ready the equipment for use.



# Preparing

- Complete a visual inspection of the helmet, cords and battery for damage or wear.
- Attach the white cord from the PAPR to the battery
  - Insert the power cord into the battery
    - Slowly twisting the cord connector clockwise while doing so.
- Verify all lights illuminate (Yellow, Red & Green) then one (1) to three (3) green lights display within 3-5 seconds and the air begins to flow.
  - If yellow light stay on, you should replace the PAPR.
  - As the rechargeable battery wears down, lights will go from green to red.
  - Red indicates the need to recharge the battery.





# Donning

before entering room

- Ensure comfort strip is in place.
- Obtain a face shield
- Attach the face shield to the PAPR by snapping it on the center, front and sides of the helmet (ensure pull tab is on the outside).
- Pull the tab away from the face shield to remove the liner.
- Lift the cuff flaps, located at the top corners of the helmet, inward and away from the lens so they rest against the foam pads and the ends of the comfort strip.
- On the back of the helmet turn the helmet adjuster to the left to loosen.



# Donning

before entering room

- Place the helmet on your head by holding the front of the face shield and with one hand and the helmet adjuster with the other
- Reach inside and pull the cuff down and around your chin.
- Turn the adjuster right to secure the helmet.
  - Bend over and lower your head to make sure it will stay in place.
- Adjust the airflow
- Place battery in pocket or on belt.
- Ensure the cord is under and in the back of your gown.



# Doffing & Cleaning

- Upon reentry to the Anteroom or PPE (Personal protective equipment) removal area
- Remove all PPE except PAPR and perform proper hand hygiene.
  - Apply new gloves.
  - Loosen the helmet by turning the adjuster to the left.
- Remove the PAPR by pulling over your head and away from your body.
  - Clean the face shield and helmet with a PDI wipe- label with your name and room number (if using shield t/o the day) otherwise discard in trash
  - Remove front comfort strip- keep with shield if reusing, otherwise discard in trash
  - Clean the cords and battery pack
  - Hang for next use.
  - Charge battery pack when not in use
- Shields/strips are single caregiver, single patient use- may clean, reuse shield & comfort strip t/o one shift (do not for use for multiple patients)



# Returning Equipment

- Discontinue the Airborne Isolation/PAPR Cart order in EHR when appropriate
  - Discard used disposables
    - ✓ Using purple top PDI wipes: (2 minute wet contact time)
      - Clean the inside & outside of the PAPR
      - Clean the battery pack
      - Clean the cords place in the cart
      - Clean the belt place in the cart
      - Clean signs and place in the cart
      - Place clean, unused supplies in the cart



# Next Steps

- Click the video links below
  - [Introduction](#)
  - [Donning and Doffing](#)
  - [Limitations](#)
- OR click below:
  - <https://www.youtube.PAPR link>