IPC Recommendations for the Maxvac Medi 10 Air Purifier

1. Change the HEPA (13 or 14) filter with the 2 pre-filters at least once a year or whenever the green light turns red.
    a. The LED may also turn red if the UV light bulb is no longer functional (usually about once a year).
    b. The HEPA13 filter removes up to 99.95% of microparticles larger than 0.21 μm.
2. One air purifier adjusted at peak setting (i.e., a flow rate of 1,300m^3/h) should be used in a room with a maximum volume of 110m^3 to achieve 12 air changes per hour (ACH).
    a. Please refer to your IPC guidelines to know what ACH is recommended in your area.
    b. Pick the lowest fan speed (305m^3/h) for a room of volume 25m^3.
    c. Choose the middle fan speed (800m^3/h) for a room of volume 70m^3.
3. The external surface of the air purifier should be cleaned once a day with 70% alcohol.
    a. Hypochlorite will stain the external surface.
4. The inside surface of the air purifier should be wiped with soap and water every time the filters are being changed.
5. The sterilization rate of the UV lamp is 99.999%. Its lifetime is 8,000 hours (i.e., about 12 months if used 24/7). Ensure the apparatus is switched off before changing the filter and lamp since UV light can represent a danger to humans.
6. Whenever the air purifier is opened for maintenance, appropriate personal protective equipment should be worn – use contact precautions as well as airborne precautions i.e., disposable gloves, gown and N95 mask. Wearing goggles or a face shield is also recommended.
7. For maximum efficiency, place the apparatus in the corner of a room or in its center. In addition, all windows should be closed during use.
8. Such air purifiers should be used in areas with less than 12 ACH where:
    a. Patients with airborne disease are present e.g., with tuberculosis, chickenpox or measles.
    b. Patients with infections that are transmitted via droplets (e.g., influenza and SARS-CoV-2) are present during aerosol generating procedures (e.g., suctioning, bronchoscopy and intubation).
    c. Patients who need extra clean air are present (e.g., critically neutropenic patients after chemotherapy, transplant patients and operating theaters where implants are being inserted).
    d. The air quality is less than acceptable for the type of procedures being performed (see ISO Cleanroom Standards for details).

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