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Recommendation for handling level 4 bioagents in combination with Hamilton Medical equipment

Example: Ebola

Level 4 bioagents, for example Ebola, require special precautions to avoid contamination.

During or after ventilation of an infected patient, Hamilton Medical recommends that you take the following actions:

- Disinfect the ventilator exterior surfaces using a registered hospital disinfectant with a label claim for a non-enveloped virus (for example, norovirus, rotavirus, adenovirus). Alternatively, you can request the names of recommended agents directly from your local health department.
- Use a bacterial/viral filter at the inspiratory outlet and an expiratory filter bacterial/viral filter between the expiratory limb and the expiratory valve to avoid contamination by secretions or aerosols. Change the filter at the manufacturer's recommended interval. Hamilton ventilators continuously measure expiratory resistance which should be assessed during routine ventilator patient assessments as elevated expiratory resistance indicates the expiratory filter should be replaced.
- If regularly administering aerosol therapy, a pleated expiratory filter such as the Pall BP50 is recommended. Note, the CDC recommends wearing of a N95 mask and face shield during aerosol generation procedures (nebulizers, intubation/extubation, bronchoscopy, open suctioning, non-invasive ventilation).
Note, Hamilton C model ventilators utilize a HEPA filter to filter air entering the turbine.
- For circuits without active/heated humidification, a bacterial/virucidal HMEF (heat moisture exchanger filter) or HCHF (hydroscopic condensing humidifier filter) may be used in place of inspiratory and expiratory filters.
- Hamilton Medical ventilators utilize a gas pathway that does not return expired gas to internal ventilator components so internal disinfection of the ventilator is not required.
- Use of MDI's is recommended in lieu of nebulized aerosols.
- Single patient use consumables are recommended. Trained personnel wearing CDC recommended personal protective equipment (PPE) should remove and dispose of breathing sets and other consumables in correctly labeled biohazard bags, and follow your hospital's guidelines for biohazard waste disposal.
- Hamilton Medical manufactures single use adult/pediatric and neonatal flow sensors for use with all Hamilton Medical ventilators and single use expiratory valves for the T1, C1 and MR1 ventilators.
- Trained personnel wearing correct personal protective equipment (PPE) should place reusable parts in biohazard bags and label them for cleaning, disinfection and sterilization according to official agency policies.
- Reusable expiratory valve covers and membranes should be steam autoclave sterilized per Hamilton Medical and hospital guidelines.

- When disconnecting patient from ventilator, Hamilton Medical recommends use of the 'O2 suction' feature which is activated by pressing the 'increase' O2 button. This ceases gas flow from the ventilator while disconnected.

For further information, see the following:

<http://www.cdc.gov/vhf/ebola/hcp/patient-management-us-hospitals.html>

<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>

<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>http://www.cdc.gov/hicpac/2007IP/2007ip_part2.html#e

With kind regards

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