bellavista™ ventilators

Vyaire recommends the following steps to avoid infection and contamination when using our ventilators.

- Please follow the instructions for use for bellavista ventilators at www.vyaire.com/Covid-19
- Please follow the cleaning and disinfection instructions at www.vyaire.com/Covid-19
- Always use an inspiratory bacteria filter to protect the inspiratory side from contamination. Appropriate filters are listed below
- Protect the expiratory valve outlet with a bacterial filter as well (filtration rate ≥ 99.97%) to minimize contamination of the environment. The integrated exhalation valve of bellavista is fitted with a 22mm outlet to connect a scavenging system, if available
- When patients are actively humidified use a bacterial filter on the inspiratory connector and connect a bacterial filter between circuit and the expiratory valve of the ventilator



- When patients are passively humidified, use a heat moisture exchanger with Filter (HMEF) between the proximal iflow sensor and the patient side to protect against contamination. Please take into account that airway resistance and apparatus dead space will increase and follow the recommendations of the manufacturer of the HMEF for changing intervals. A selection of suitable HMEFs are listed below
- When patients are non-invasively ventilated, consider the risk of aerosols released into the environment and potentially passing onto caregivers
- Single-use consumables, such as breathing circuits, flow sensors, airway adapters, expiratory valves and filters, can help to mitigate cross contamination when the ventilator is reprocessed for use of the next patient. A list of consumables suitable for bellavista are listed below
- When reusable materials are used, follow the hospital, manufacturers or the <u>WHO guidelines</u> for reprocessing these items
- Always avoid disconnections to avoid exposure of aerosols into the environment. They also result in instantaneous loss of PEEP and subsequent de-recruitment of the lung. Clamp endotracheal tubes before intendedly disconnected (e.g. intra-hospital transport, HMEF change)
- For suctioning patients, please use a closed suction system like <u>Verso</u> to prevent cross contamination
- bellavista ventilators can be equipped with an HEPA 14 particle filter (filtration rate 99.995%) to prevent contamination of the internal gas pathway. The HEPA filter can be used for a period of three months before it must be exchanged
- Disinfect the outer surfaces of the ventilators regularly during ventilation or after treatment
 of a patient with a suitable disinfectant. Follow the instructions for use of the ventilator or
 the disinfection instructions available at www.vyaire.com/Covid-19



- The iflow sensors are permanently rinsed, so contamination of flow sensor tubes is averted. Keep the sensor tubes always upright to prevent ingress of fluids
- When using the suction tool on bellavista, ventilation will stop automatically, when disconnected to prevent distribution of patient secretion. Disconnect the patient from the ventilator after switching the ventilator to standby
- Please follow the <u>WHO guidelines</u> for infection prevention and control of pandemic respiratory infections in health care¹

Consumables for bellavista 1000 ventilators

Circuits for HFO	T and NIV, Adult & Pediatric, active humidification, single patient use
AH202	Single-limb, heated wire 5' with AH290 chamber, dry gas line, 10/cs
AH102	Adult single-limb heated 5' circuit with dry gas line, 10/cs
AH290	Humidification chamber, 10/cs
Circuits for inva	sive ventilation and NIV and HFOT, for use with iflow sensor 200S, active humidification, single patient use
AH280	Dual-limb, dual-heat, 5' circuit with AH290 chamber, dry gas line, 10/cs
AH180	Dual-limb, dual-heat, 5' circuit with dry gas line, 10/cs
AH290	Humidification chamber, 10/cs
Circuits for Neor	natal and Infants, for use with flow sensor 40S active humidification, single patient use
AH265	Dual-limb, dual-heat, 4' high-flow infant circuit with AH290, 10/cs
AH165	Dual-limb, dual-heat, 4' high-flow infant circuit, pressure line, 10/cs
AH290	Humidification chamber, 10/cs
iflow flow senso	rs for bellavista
301.328.010	iFlow 200 S Proximal Flow Sensor (Adult/Pediatric, Single-Patient, 10/pk)
301.470.010	iFlow 40 S Proximal Flow Sensor (Neonatal, Infant, Single-Patient, 10/pk)
NIV masks full fo	ace, single patient use
NIVO41L	Mask, NIV Full Face, Non-Vented, Large, 10/cs
NIVO43L	Mask, NIV Full Face, Non-Vented, Large with AAV, 10/cs
NIVO41M	Mask, NIV Full Face, Non-Vented, Medium, 10/cs
NIVO43M	Mask, NIV Full Face, Non-Vented, Medium with AAV, 10/cs
NIVO41S	Mask, NIV Full Face, Non-Vented, Small, 10/cs
NIV043S	Mask, NIV Full Face, Non-Vented, Small with AAV, 10/cs
Endotracheal cl	osed suction adapters
CSC100	Adapter Verso Adult/Ped 45°, double swivel elbow, 20/cs
CSC400	Adapter Verso Adult/Ped 90° elbow, 20/cs
CSC500	Adapter Verso Adult/Ped, T-piece, no swivel, 20/cs
Endotracheal cl	osed suction catheters
CSC110	Catheter 10fr closed, 50/cs
CSC112	Catheter 12fr closed, 50/cs
CSC114	Catheter 14fr closed, 50/cs
CSC116	Catheter 16fr closed, 50/cs

Filters & HMEF

Bacterial Filters		
557021200	Filter Engström, 45/pk	
557022500	Filter Uni-filter with Gas source port, 60/pk	
Heat Moisture Exchangers with Filter (HMEF)		
M1038637	HMEF 1000 without sampling port, 50/pk	

Filters & HMEF (cont.)

Heat Moisture Exchangers with Filter (HMEF) (cont.)		
557071500	HMEF 1000 with GSP and Flextube, 30/pk	
557071600	HMEF 1000 with Flextube, 30/pk	
557085500	HMEF 1000 with Memoflex, 40/pk	
M1010534	HMEF 1000/S angled with GSP, 50/cs	
8004231	HMEF MINI with GSP, 50/pk	
HEPA Inlet filter		
302.303.000	Inlet filter starter Kit H14 HEPA (Housing, 1 cartridge, 1 inlet filter blower, 99.995% filtration efficiency)	
302.504.000	Inlet filter set H14 HEPA (4 cartridges, 12 inlet filter blower)	

Please note:

All filters and HMEFs must be routinely changed. The primary reason for this is to minimize the risk of microbial growth inside the filter/HMEF. The filter/HMEF should be changed after every patient or every 24 hours when used continuously on the same patient. The filter/HMEF should be changed earlier when Filters should always be replaced immediately upon detection of moisture on the machine side of the filter media, even if they have been in use less than 24 house.

REFERENCES

1. https://apps.who.int/iris/bitstream/handle/10665/112656/9789241507134_eng.pdf?sequence=1&isAllowed=y

Additional sources:

World Health Organization. (2020). Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected. Who, 2019 (January), 12. Retrieved from https://www.who.int/internal-publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected%0A

GLOBAL HEADQUARTERS

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