

# Protocol I : User Maintenance

Equipment	<b>O2 concentrator, DeVilbiss 515KS/515AKS/525KS</b> (EHOECONC4--, current model; 525KS)
Responsible	<b>Medical staff</b>

## A Sterilise/disinfect humidifier

<b>Frequency</b>	After each patient, and daily during use (normally only used for treatment >24hours)
<b>Tools</b>	Autoclave or Hexanios* solution and syringe.
<b>Parts</b>	Sterile humidifier (EHOECONC403 HUMIDIFIER, autoclavable is recommended)

- 1** WHITE or BLUE LID: Autoclavable

  - Sterilise in autoclave according to sterilisation procedures.
  - Replace with new sterile humidifier.

GREEN or BLACK LID: Non-autoclavable.

  - Soak humidifier in a solution of Hexanios\* for 15 minutes.
  - Use a syringe to assure solution goes inside lid.
  - Rinse well with clean water (use syringe to rinse lid).



Humidifier (lid, body diffuser and tube).

Only when no Hexanios\* is available, use 0.1% chlorine solution.

**⚠ WARNING:** Rinse very well with water afterwards! Respiratory equipment can become toxic when using chlorine.

- 2** Refill humidifier ONLY with sterile water or fresh, filtered drinking water.

**⚠ CAUTION:** Do not use bottled water (even distilled water) which has been stored in warm conditions. These conditions allow bacterial growth in the water and increase the risk of patient infection.

**⚠ CAUTION:** Never add chlorine to the water. Chlorine is toxic for the respiratory system. Chlorinated water supply can be used (with max 0,5 mg/l free residual chlorine).

- 3** Refit the humidifier to the oxygen concentrator and connect the new patient tube(s) and mask or nasal cannula (see B).

**⚠ WARNING:** Ensure there are no leaks in the connection to the oxygen concentrator otherwise the patient will not receive the required quantity of oxygen.



\* In countries with import restrictions an equivalent local product (validated by the HQ Hygiene Referent) may be used.

**B**

## Sterilise/disinfect patient tubes and clean/replace mask or nasal cannula

<b>Frequency</b>	After each patient, and daily during use.
<b>Tools</b>	Autoclave or container of Hexanios* solution and syringe.
<b>Parts</b>	New mask/nasal cannula, new patient tube if length is more than 1 metre.

- 1** SINGLE USE masks and nasal cannulas:
- Check daily that the passage of oxygen is not restricted by dried mucus.
  - Replace with a new one if damaged and always for each new patient.


- 2** PATIENT TUBE LESS THAN 1 METRE LENGTH:
- Check daily and replace with a new tube if it is damaged or blocked.
  - Sterilise in autoclave according to sterilisation procedures.

**Alternatively:**

- Soak tubing (and any Y-connectors used) in a Hexanios\* solution for 15 minutes.
- Use a syringe to assure solution goes inside tube.
- Rinse well with clean water (use syringe to rinse tube).





Only when no Hexanios\* is available, use 0.1% chlorine solution.

 **WARNING:** Rinse very well with water afterwards!  
Respiratory equipment can become toxic when using chlorine.

- 3** PATIENT TUBE LONGER THAN 1 METRE LENGTH:
- Check daily and replace with a new tube if it is damaged or blocked.
  - Use a new tube for each new patient.

- 4** Reconnect patient tube(s) to the oxygen concentrator or humidifier (if used) and refit the mask/nasal cannula.

 **ATTENTION:** Ensure that tubes are as short as practically possible, that they are off the floor, and that they cannot be trapped or pinched. Otherwise they will become damaged

 **WARNING:** Ensure there are no leaks in the various connections and that the mask or nasal cannula is fitted correctly otherwise the patient will not receive the required quantity of oxygen.

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## C

# Clean machine and clean/replace dust filter

<b>Frequency</b>	Twice per week, more often in very dusty environments.
<b>Tools</b>	Lint-free cloth and Surfanios* solution, container with soap and water.
<b>Parts</b>	Clean dust filter (EHOECONC401 for 525KS, EHOECONC301 for 515KS/AKS)

- 1** • Clean outside of the machine using a lint-free cloth, humidified with Surfanios\* solution.
- 2** • Remove the filter and gently hand clean with soap and water.  
• After washing rinse well using clean water and place the filter to dry.



Dustfilter



**ATTENTION:** Never reinsert the filter before it is dry, and never use the machine without this filter.

Have 2 filters available, one clean in standby and one fitted in the machine. When removing the filter for cleaning replace immediately with the clean one in standby. Then clean the removed filter and put it in standby.



**WARNING:** Replace the filter with a new one if it is worn (becoming thin or has holes or tears).

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