Precautions in Artificial Respiration (No. 2)

Key points for safe use

(Case 1) When a low-pressure alarm was continuously sounding, it was first thought to be due to gas leakage from the circuit. After close inspection it was revealed that water had blocked the airway pressure tube, precluding accurate measurement of the airway pressure.

1. Precaution when connecting an airway pressure tube

- Water blocking the airway pressure tube may be a possible cause of a low or high-pressure alarm.

Possible causes

1. Improper connection of airway pressure tube
2. Remaining water in airway pressure tube

To prevent water from blocking the airway pressure tube, check the following:

1. Keep the airway pressure tube connector at the top to prevent water inflow.
2. Immediately remove any water remaining in the airway pressure tube.
(Case 2) After a heating and humidifying chamber was filled with water, by direct connection of the circuit to the chamber, via the gas port instead of through the feed-water port, reconnecting the gas tube to the chamber was forgotten.

2 Points for handling a heated humidifier

- Do NOT use the gas port to fill the heating and humidifying chamber with water.

Water auto-feeding chambers

You can use water auto-feeding chambers that are continuously filled with distilled water to maintain a constant water volume.

Precautions such as shown on the left are described in package inserts of heated humidifiers and the like.

Excerpt from package insert of Heated Humidifier MR 850, Fukuda Denshi Co., Ltd.

*This part is indicated in Japanese.

Note that water auto-feeding is inappropriate in some ventilation modes.
The Ministry of Health, Labour, and Welfare (MHLW) has issued notifications that are related to issues in this PMDA Medical Safety Information No. 11.

- “Revision of PRECAUTIONS regarding heated humidifiers” (PFSB/ELD Notification No. 1126009 and PFSB/SD No. 1126001 issued on November 26, 2004)
- “Self inspection, etc. of package inserts regarding airway pressure monitoring tubes in a respiration circuit” (PFSB/ELD Notification 0825 No. 2 and PFSB/MDIO Notification 0825 No. 6 issued on August 25, 2009)

Information on this notification is available at the Pharmaceuticals and Medical Devices Information website (in Japanese)

About this information
- PMDA Medical Safety Information is issued by the Pharmaceuticals and Medical Devices Agency for the purpose of providing healthcare providers with clearer information from the perspective of promoting the safe use of pharmaceuticals and medical devices. The information presented here has been compiled, with the assistance of expert advice, from cases collected as Medical Accident Information Reports by the Japan Council for Quality Health Care, and collected as Adverse Drug Reaction and Malfunction Reports in accordance with the Pharmaceutical Affairs Law.
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