Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/
Adverse Event Information

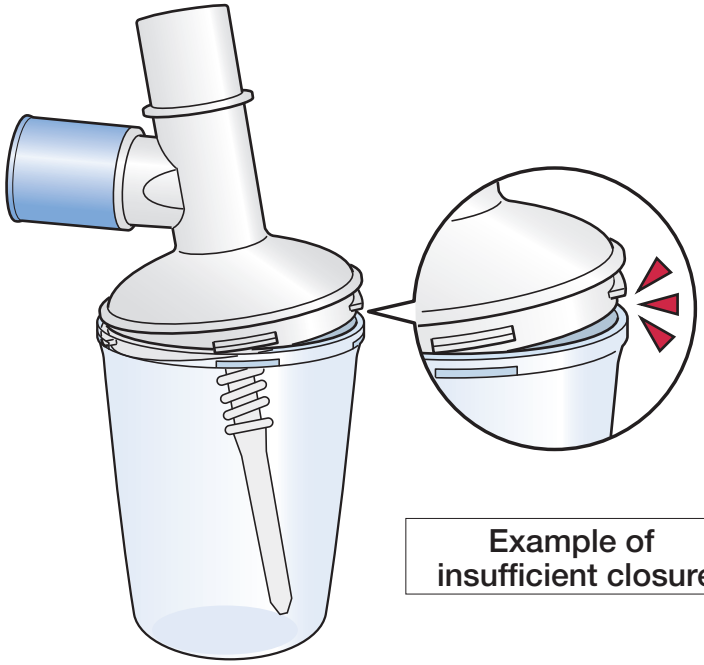
Medical Safety Information

No.32, July 2009

Insufficient closure of water trap cup

Four cases of temporary worsening respiratory condition in patients due to insufficient closure of the water trap cup of the ventilator circuit, have been reported (information collection period, from January 1, 2006 to May 31, 2009; the information is partly included in "Medical Adverse Event Information to Be Shared" in the 16th Quarterly Report).

The cases of temporary worsening respiratory condition in patients due to insufficient closure of the water trap cup of the ventilator circuit, have been reported.



Example of insufficient closure

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Case 1

A disposable circuit was connected to the ventilator (Newport E200). The nurse released water by removing the water trap cup of the disposable circuit, and then re-attached the cup. Four hours later, the patient's respiratory condition worsened. The circuit of the ventilator was checked, the water trap cup was re-attached, and the patient's respiratory condition improved. It was difficult to know visually if the water trap cup closure was insufficient. Moreover, there was only slight airway pressure decrease due to air leak, so the alarm of the ventilator was not immediately activated. As a result, the nurse did not notice that the closure of water trap cup was insufficient.

Case 2

A disposable circuit was connected to the ventilator (LTV1200). The nurse was observing the patient, but shortly after, the patient's respiratory condition worsened. The circuit of the ventilator was checked, the water trap cup was re-attached, and the patient's respiratory condition improved. It was difficult to know visually if the water trap cup closure was insufficient. As a result, the nurse did not notice that the closure of water trap cup was insufficient.

Preventive measures taken at the medical institutions in which the events occurred.

When re-attaching cups, of ventilator circuit (water trap cup, nebulizer, humidifier, etc.), check to make sure that it is completely closed.

* As part of the Project to Collect Medical Near-Miss/Adverse Event Information (a Ministry of Health, Labour and Welfare grant project), this medical safety information was prepared based on the cases collected in the Project as well as on opinions of "Comprehensive Evaluation Panel" to prevent occurrence and recurrence of medical adverse events. See quarterly reports and annual reports posted on the Japan Council for Quality Health Care website for details of the Project. http://www.med-safe.jp/
* Accuracy of information was ensured at the time of preparation but can not be guaranteed in the future.
* This information is neither for limiting the discretion of healthcare providers nor for imposing certain obligations or responsibilities on them.

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