Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/
Adverse Event Information

Medical Safety Information

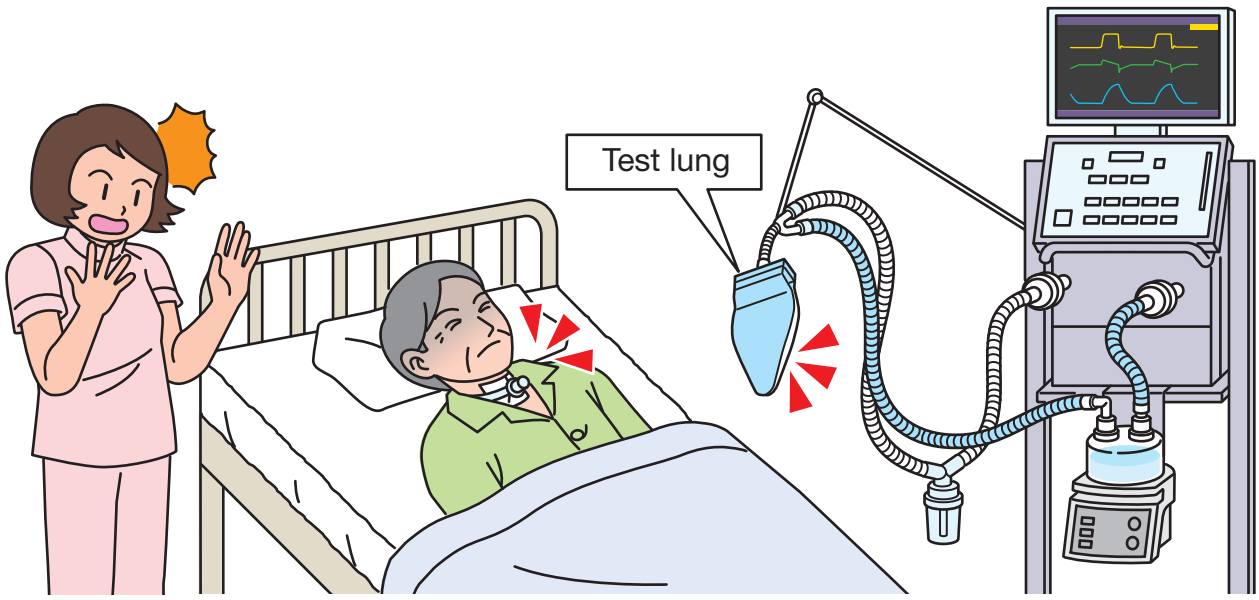
No.194, January 2023

Forgetting to Reconnect Ventilator Circuit Tubing Due to Use of a Test Lung

Three cases have been reported in which there were delays in realizing that ventilator circuit tubing removed from a patient in order to change their position, etc. had not been reconnected to the patient, because the circuit had been connected to a test lung and the ventilator alarm therefore did not sound (information collection period: from January 1, 2019 to November 30, 2022). This information was compiled on the basis of the content featured in the Details of Events section of the 70th Quarterly Report.

Cases have been reported in which there were delays in realizing that ventilator circuit tubing removed from a patient had not been reconnected to the patient, because the circuit had been connected to a test lung and the ventilator alarm therefore did not sound.

Image of case



◆ A test lung is used when checking that a ventilator is functioning.

Project to Collect Medical Near-Miss/ Adverse Event Information

Project to Collect Medical Near-Miss/ Adverse Event Information
Medical Safety Information

No.194, January 2023

Forgetting to Reconnect Ventilator Circuit Tubing Due to Use of a Test Lung

Case 1

When changing the position of a patient being managed on a ventilator, the nurse removed the ventilator circuit from the tracheostomy tube and connected it to a test lung. After changing the patient's position, the nurse left the room without checking the patient's respiratory condition and the connection of the ventilator circuit. The central monitor alarm sounded 8 minutes later and the nurse noticed that the patient's SpO_2 had fallen to 85% and their heart rate to 40 bpm. When the nurse visited the patient's room, they realized that they had not reconnected the ventilator circuit tubing to the patient.

Case 2

When changing the position of a patient being managed on a ventilator (who was breathing spontaneously), the nurse removed the ventilator circuit from the tracheostomy tube and connected it to a test lung. After changing the patient's position, the nurse left the room without connecting the ventilator circuit to the patient. The nurse began tube feeding of the patient 5 minutes later and changed the distilled water in the ventilator's heated humidifier 30 minutes later, but did not check the patient's respiratory condition or the connection of the ventilator circuit. An hour after changing the patient's position, a member of the patient's family came to the hospital and noticed that the ventilator circuit tubing was not connected to the patient.

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

- **When leaving the bedside of a patient fitted with a ventilator, check that the circuit tubing is connected to the patient and that the patient's chest is moving.**

The measure above is an example. Please consider initiatives suitable for your own facility.

* 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 the "Comprehensive Evaluation Panel" to prevent the occurrence and recurrence of medical adverse events. See the Project website for details.
https://www.med-safe.jp/

* Accuracy of information was ensured at the time of preparation but cannot be guaranteed in the future.

* This information is intended neither to limit the discretion of healthcare providers nor to impose certain obligations or responsibilities on them.

Department of Adverse Event Prevention
Japan Council for Quality Health Care
1-4-17 Kandamisaki-cho, Chiyoda-ku, Tokyo 101-0061 JAPAN
Direct Tel: +81-3-5217-0252 Direct Fax: +81-3-5217-0253
https://www.med-safe.jp/