



Japan Council for Quality Health Care

Project to Collect Medical Near-Miss/
Adverse Event Information

Medical Safety Information

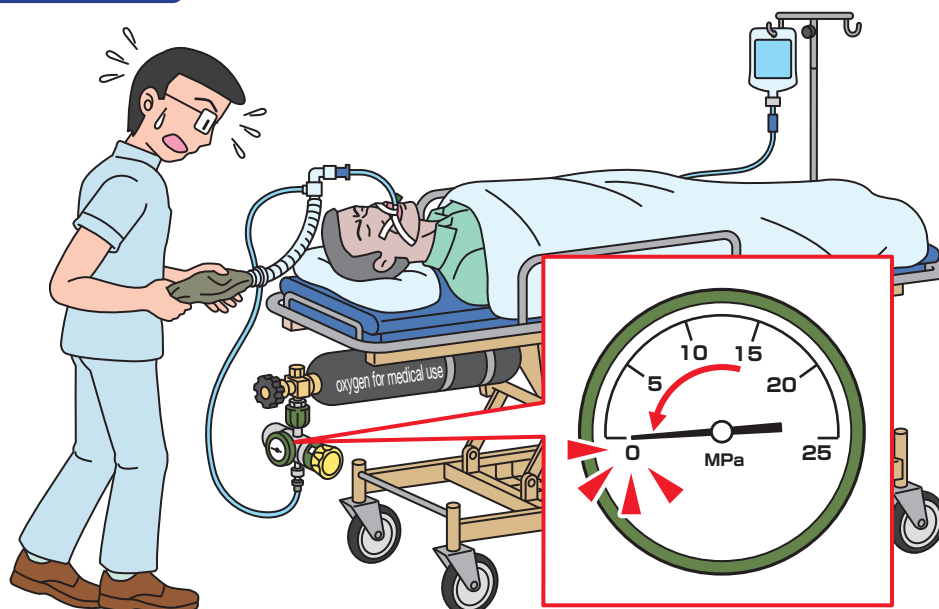
No.48, November 2010

Failure to check oxygen remaining

Six cases related to confirmation of the amount of oxygen remaining in the tank have been reported (information collection period: from January 1, 2007 to September 30, 2010; the information is partly included in “Medical Adverse Event Information to Be Shared” (p.183) in the 17th Quarterly Report).

Cases where the amount of oxygen remaining in the tank reached zero while the patient was being transferred, affecting the respiratory condition of the patient, have been reported.

Image of the case



Failure to check oxygen remaining

Case

When being transferred to the examination room, the patient was treated under artificial respiration by Jackson Rees circuit was performed. After arriving at the examination room, oxygen supply to the breathing bag grew less, so the oxygen regulator was checked, and it was noticed that there was no more oxygen. The patient went into cardiopulmonary arrest while the tank was being replaced, and resuscitation was performed. There was a failure to confirm the amount of oxygen remaining in the oxygen tank before use.

Preventive measures taken at the medical institution in which the event occurred.

- Before an oxygen tank is to be used, be sure to confirm the amount of remaining oxygen by the oxygen regulator.
- Confirm the amount of oxygen remaining by the oxygen regulator as needed, even during use.

Ref. Example of usable time (minutes) of oxygen tank

		Display on the oxygen regulator (MPa)					
		14	13	12	11	10	9
Oxygen flow rate (L/min)	1	490	455	420	385	350	315
	2	245	228	210	193	175	158
	3	163	152	140	128	117	105
	4	123	114	105	96	88	79
	5	98	91	84	77	70	63
	⋮	⋮	⋮	⋮	⋮	⋮	⋮
	10	49	46	42	39	35	32

* An approximate amount of time the oxygen tank can be used is indicated.

* *Approximate amount of usable time (min) = tank capacity (L) × display on the oxygen regulator (MPa) × 10 / oxygen flow rate (L/min)* was used as the conversion formula. Besides this, please note there are also other conversion formulas.

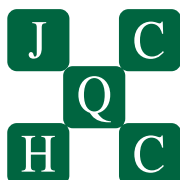
* Calculated for an oxygen tank with a 3.5L capacity.

* Including the amount of oxygen remaining in the tank.

* 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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