

Investigation into nurses' awareness of medical equipment alarms in a muscular dystrophy ward

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Abstract

We conducted an investigation into nurses' awareness of medical equipment alarms in a muscular dystrophy ward. The factor that a nurse was late for correspondence of the alarm was thereby analyzed. Important reasons for not responding to alarms immediately included being engaged in preparation of medicine and intravenous feeding, and giving support to other patients. Furthermore, a custom phenomenon for the alarm was found in 15.0%. Causes include that alarms sound over 100 times a day on average in the ward. Quick alarm support requires action to stop unnecessary alarms.

Keywords: nurses' awareness, medical equipment alarms, muscular dystrophy, unnecessary alarms, alarm support

Introduction

Tokushima National Hospital has specialized medical facilities for neuromuscular disorders, including 95 respirators, 62 wireless LAN systems, 11 Central League monitors, and 56 bedside monitors. In our ward, 41 respirators, eight wireless LAN systems, three Central League monitors, and 20 bedside monitors operate. As nurses conduct their duties, alarm continue to sound all day long. About Central League monitor and the wireless LAN system, the monitor alarm sounds more than 100 times a day on average As for the cause of the monitor alarm, falls in SpO₂ is important due to body movement and a sputum. For origin of the respiratory alarm, there is much high pressure alarm by the low-pressure alarm and body movement at absorption in the daytime. There are many low-pressure alarms caused by leaks from a patient's

mouth at night. In an investigation by the Japan Nursing Association, accidents with medical equipment in which nurses were involved caused 30 of 2000 cases. Our ward has many respirators; therefore, it is very likely that life-threatening crises will arise if preventive measures are delayed. The accident by the delay for alarm is not taking place. However, it may be felt that correspondence to alarm may be late [1,2]. We conducted an investigation into nurses' awareness of medical equipment alarms in a muscular dystrophy ward.

Subjects and methods

The investigation period from nine a year H26 26 days a month to October 5. The subjects were 37 floor nurses. The questionnaire of the medical safe practice guide was revised for our wards. The investigation had we looked back, and describe questionnaire enforcement one

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week ago. There were nine questionnaire items, and a free mention was made for inner two items. Questionnaires were distributed to personal lockers, and were collected with a collection bag later. The analysis method was single every item of the questionnaire. The study contents received the approval of the Ethical Review Board of our hospital. The questionnaire was unsigned.

Results

Results are summarized in Figure 1. Of 37 subjects, 35 responded, and the questionnaire collection rate was 94.6%. The effective answer did not have the no answer in 100%. By age, 13 nurses were in their 20s, seven nurses were in their 30s, six were in their 40s, and nine were in their 50s.

Questions (Q1) and answers (A) were as follows.

Q1- Are alarm sounds frequent in the day time?

A1-very frequent, 37%; frequent, 57%.

Q2- Are alarms hard to be hear?

A2- frequent, 28.6%; sometimes, 60.0%.

Q3- Is it felt that alarms continue sounding?

A3- frequent, 8.6%; sometimes, 60.0%.

Q4- Is it silenced to avoid unnecessary alarm?

A4- always, 51.4%; sometimes, 28.6%.

Q5- Can you cope with alarms immediately?

A5- always, 22.9%; sometimes, 28.6%; rarely, 45.7%; never, 2.9%.

Q6- When you are in the staff room, what is the reason that cannot respond immediately?

A6- Occupied with preparations of medicine, 47.5%; Because alarms always sound, 15.0%; Alarms are for the other team, 12.5%.

Q7- When you are outside a staff room, what is the reason that cannot respond to alarms immediately?

A7- Because I correspond to the other patients, 62.2%; Because the alarm is not heard, 27.0%; Because I expect somebody else to deal with it, 8.1%.

A8- Do you have a different awareness of different types of alarm?

Q8- yes, 82.9%;

A9-Which alarm are you most aware of?

A10-Respiratory alarm, 62.1%

Discussion

From the questionnaire results, 88% of hospitalization environmental satisfaction was or more. The internal use management is determined depending on the ability of the patients on admission. It is important for patients with Parkinson's disease that internal use is conducted properly to maintain ADL. It is thought that the current method does not have any problems. Patients with Parkinson's disease have a big risk of falls because of their motor disorder. Most patients felt that the support of the nurse following a fall was appropriate. It will be necessary to offer continued nursing in the future. In the hospitalization environment, satisfaction with the weekend life was low, at 50%. Inpatients from outside the prefecture represented 69% of the total, and many patients spend the weekend at the hospital. It will be necessary to get suggestions for how to best spend weekends in future. Regarding bathing, many patients felt that 30 minutes for bathing was too short. The patients with Parkinson's disease have motor disorders, and time is often needed in the second lunar month. Therefore, it is necessary to consider extending the bathing time. Regarding the support from nurses, 5% of patients were dissatisfied. The nurses associate with the patients for 24 hours. Whether a patient is satisfied or dissatisfied with the time in hospital depends on the support received from nurses. For further improvement, the reinforcement of service aspects is being carried out by the staff. Regarding sympathy society and DVD viewing, 24% of patients were unsatisfied. Particularly, it has bad impression for repeater patients to repeat the same content. Therefore, it is necessary to change contents while listening to the demands and the opinions of the patients. Nurses give an explanation of matters that require attention after discharge during a briefing session at the time of discharge. Twenty-seven percent of patients were unsatisfied with this. When a nurse explains a hospitalized good thing, the patients would be satisfied with hospitalization.

Reference

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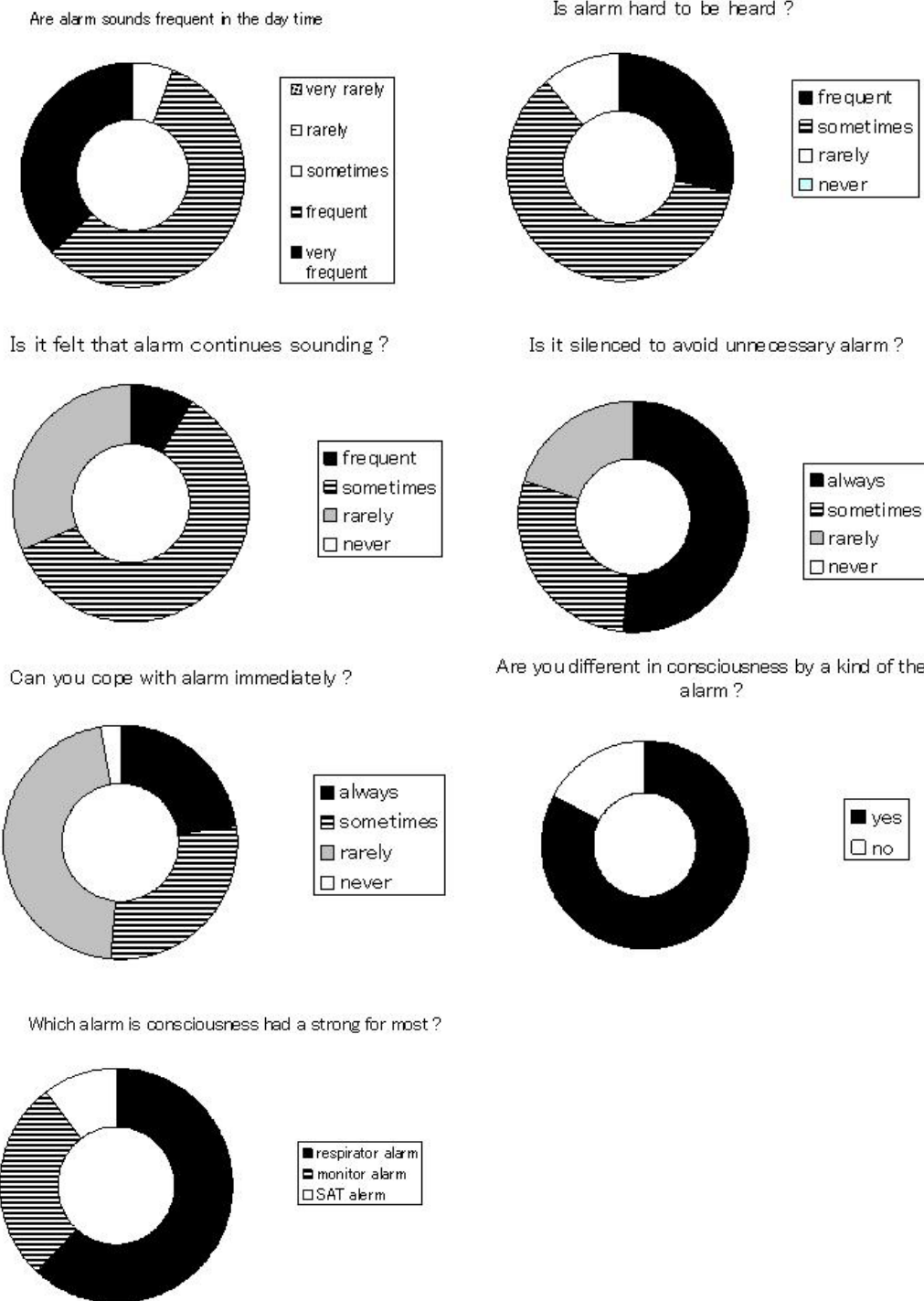


Figure 1. Main questions and answers as to awareness of alarms.