

The Practice of Sputum Aspiration and Tube Feeding by Nurses and Caregivers at Special Nursing Homes for the Elderly

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1. Background

Japan has a total population of 127,648,000 in 2008
22% of Japan's population were elderly (27,464,000 senior citizens)
790,000 elderly people live in nursing facilities
400,241 people are residents of special nursing homes for the elderly

It has been hard to place elders who need medical care into special nursing homes for the elderly, and a large rise in this group is forecast for the future
Night time medical care is not available in special nursing homes for the elderly because doctors and nurses are not on duty and medical care system is ill equipped. We explain about only the practice of sputum aspiration here

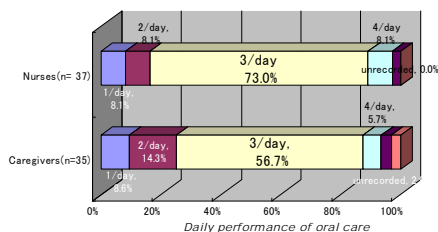
4. Results

4-1) Patients who require sputum aspiration

- Average age of patients: 84.2 (SD=6.9)old (66-99 years old)
- Sex: 11 men, 26 women
- Each facility (average size: 100 patients) had an average of 7.6 patients who needed aspiration (SD=7.0) (range 0-32)
- Self-sufficiency: each patient was fully bedridden and needed assistance with elimination, meals and change of clothing.
- Cognitive functioning: 82.1% had severe cognitive impairment.
- 32 patients (86.4%) required tube feeding.

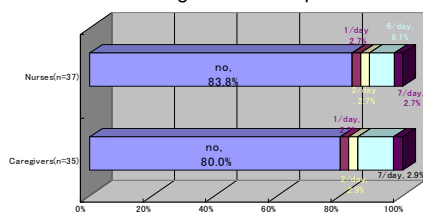
4-3 Sputum Aspiration Preventative Care

Both nurses and caregivers usually provided oral care three times a day



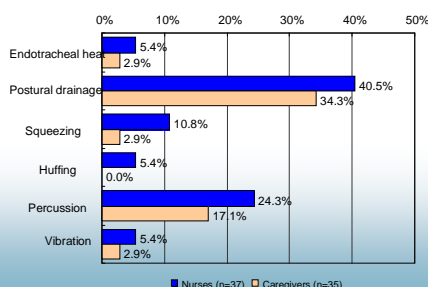
Weekly Swallowing Exercises

Most nurses and caregivers did not provide swallowing exercises.



Encouraging Patient Self-Expectoration (multiple responses)

Nurses perform exercises such as postural drainage, percussion and squeezing. Caregivers perform postural drainage and percussion, etc.



2. Objectives

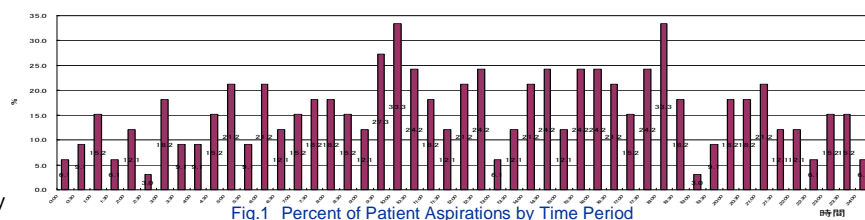
The information in this presentation advances medical care by providing survey about patients in special nursing homes for the elderly who receive a substantial number of sputum aspirations

3. Methodology

- Personal connections were used to select special nursing home facilities throughout Japan that care for patients needing sputum aspiration
- With permission, we conducted interviews to survey one nurse and one caregiver from each of 38 different facilities
- The data was classified according to content and counted for frequency. It included a few cases that we summarized and depicted because the content was worthy of special mention.

4-2) Time and Performance of Sputum Aspiration

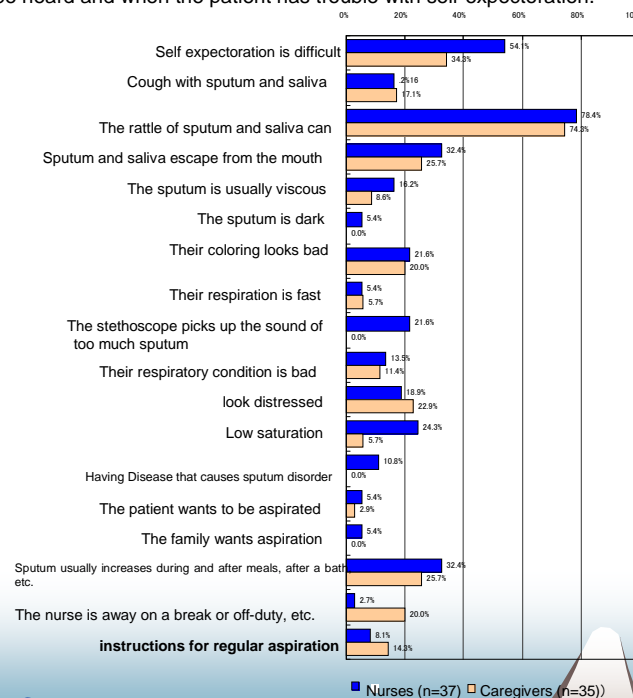
The average number of per-person aspirations in 24 hours was 7.0 (range 1-24, mode 5). During the 9-hour period between 9:00 a.m. to 6:00 p.m., 125 aspirations were performed (48.6%). The hourly average was 13.9



Some patients were aspirated at a frequency of 24, 22, 17, 16, etc., times per day. At night, certain patients were aspirated once or more per hour.
The amount of daily tube feedings and sputum aspirations was statistically significant ($r_s = .47, p < .05$) This includes a small but discernible number of cases where commencement of tube feeding made it necessary to perform aspirations.

4-4. Assessing the Need for Sputum Aspiration

Nurses and caregivers are most likely to decide on aspiration when the noise of sputum and saliva can be heard and when the patient has trouble with self-expectoration.



5. CONCLUSIONS

- 1) Aspiration was conducted and approved on a 24-hour basis. Reassessment of comfort and safety is necessary because of the frequency of aspiration, and, in particular, the frequency of nighttime aspiration.
- 2) The nursing facilities actively implemented oral care, but few performed swallowing exercises.
- 3) Assessment of appropriate tube feeding procedure is needed.
- 4) It is necessary to study assessment of methods and results of manual techniques for manipulative bronchial drainage, ways to encourage sputum self-expectoration for patients with diminished cognitive functions, and aspiration methods.
- 5) It is necessary to clarify the standard techniques that must be known by nursing facility employees when they perform sputum aspiration. It is also necessary to designate specific educational goals and content.

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