

# The Present Situation and the Problem of Visiting Nursing: Team Care Management of Pressure Ulcers in the Elderly\*<sup>1</sup>

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## Introduction

Currently, over 70% patients visiting home nursing stations receive service under the national long-term care insurance policy. As many of them are elderly, we should consider prevention and management of their pressure ulcers in nursing. It is well known that a risk of developing pressure ulcers is related to not only local factors but also other factors such as systemic and environmental conditions. In home care, medical staff who are capable of providing professional care cannot manage a patient for a whole day unlike in hospital care. Home visiting nurses have to consciously share patients' information as much as possible with other members involved, and all those involved should understand the foundation of pressure ulcer management as the team approach.

## Risk of Pressure Ulcers in Home Care

The total number of patients who visited at the Takashimadaira Home Nursing Station were 326 in the fiscal year (FY) 2012. 254 (77.9%) patients received service under their long-term care insurance policy, and 72 (22.1%) were covered under the Health Insurance Act or other plans. The age of the patients ranged from 1 month to 104 years old ( $78.2 \pm$  years old); 86.2% were over 65 years old and 71.2% were over 75. The long-term care insurance coverage is divided into 7 categories according to a care level based

on the Long-term Care Need regimen. Among our patients in FY2012, 59.3% of them were in the levels 3 to 5, which was in the "need care" category. Most patients (46.3%) had cardiovascular disease, with cerebrovascular disease accounting for 23.3%; the next highest was malignant neoplasm (24.5%) with 8.9% terminal cancer; followed by endocrine, nutritional and metabolic diseases (23.0%) with 19.0% diabetes; and ranked in fourth was musculoskeletal and connective tissue related disease (22.1%).

Many of them exhibited risk factors for pressure ulcers, such as changes in skin and metabolism as they aged, malnutrition from dysphagia or other disease, bed sore or pressure sore according to their reduced activity/mobility levels, and humectation and skincare problems by using adult diapers and also due to a lack of caregivers' capacity. We therefore believed that those people needed advanced nursing care for prevention and management of pressure ulcers. Because 23.0% of the patients lived alone and 26.1% of their caregivers were over 75 years old, about half of the patients had many problems in the home care they had been provided.

## Tools for Pressure Ulcer Management

There are various tools relating to pressure ulcer management. However, we have to find a way to use tools for sharing information between medical and non-medical staff and evaluating the condition of pressure ulcers objectively.

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### Braden scale<sup>1</sup>

The Braden Scale (Japanese Society of Pressure Ulcers 2008) is useful for a group discussion (e.g., a staff meeting where different specialists and family members are present) because it helps verify the cause and factors involved in developing pressure ulcers in the context of the patient's condition. Non-medical caregivers such as family members, a care manager, long-term care staff (typically called "helpers" in Japan), and staff at short-stay centers can share the assessment of the patient, consider specific preventive or treatment methods within the role of each member, and then implement those methods.

There are 6 categories within the Braden Scale to evaluate: cognitive perception (range: 1 point for no perception to 4 points for no impairment); skin wetness (range: 1 point for always wet to 4 points for rarely wet); activity level (range: 1 point for bedridden to 4 points for being able to walk); mobility level (range: 1 point for complete immobility to 4 points for being able to move freely); nutritional status (range: 1 point for poor to 4 points for very good); and skin rubbing and sore (range: 1 point for having problems to 3 points for having no problem). In the home care environment, those with a Braden Scale score of 17 points or less are considered to be at high risk of developing a pressure ulcer.

### DESIGN-R: Evaluation of healing<sup>2</sup>

The Japanese Society of Pressure Ulcers developed a tool in 2002 to evaluate the healing process of pressure ulcers. The tool's name, DESIGN, is an acronym of 6 pathologies, namely: Depth, Exudate, Size, Inflammation/Infection, Granulation tissue, and Necrotic tissue (Japanese Society of Pressure Ulcers 2009).

The letter P is added at the end (DESIGN-P) when an undermining pocket is present. DESIGN was revised in 2008 as DESIGN-R, with R standing for Rating, to determine the pressure ulcer severity using all categories except depth. DESIGN-R is incorporated as an objective indicator in the data sheet used by the Takashimadaira Home Nursing Station. DESIGN-R is effective for sharing information among medical staff or between hospital staff and home-care staff to provide collaborative care. The scale is widely known to physicians and home visiting

nurses, and the instruction sheet includes notes for visiting nurses.

### Other evaluation methods

A classification based on the tones of the wound surface color (Fukui 2000)<sup>3</sup> may be used as additional evaluation methods.

## Sharing Knowledge and Standardizing Nursing Care

A home visiting nurse must visit a patient's home alone, make decisions alone, and nurse a patient alone. The care provided by home visiting nurses may vary among individuals because the care that each nurse provides is based on accumulated education and experience. For this reason, a case-study meeting, called the "pressure ulcers and wound conference," is conducted once a week at the Takashimadaira Home Nursing Station to standardize pressure ulcer management.

### Purposes of the pressure ulcers and wound conference

- (1) All staff members should be able to practice the same care that follows the basics of pressure ulcer management.
- (2) All staff members should share the most current information about pressure ulcer management.
- (3) The goal is to provide standardized nursing care through pressure ulcer management training.

### Rules of the conference

- (1) The conference should be short and effective, so it will not become a burden for members to participate.
- (2) Monitoring and follow-up evaluation are made possible by using a data sheet attaching photographs of pressure ulcers and notes. When taking a photograph, its purpose must be first explained to the patient and family members, and their consent must be given beforehand.
- (3) Issues such as factors that are distracting the healing process or the effectiveness of the current treatment must be reviewed based on standardized management of pressure ulcers.

### Issues debated in the conference

- (1) Identify disease status and general condition of the patient. Verify any issues that may be related to pressure ulcers, such as cognitive perception, nutritional status, activity and mobility levels, joint contracture or pathologic protruding of bones, tremors or involuntary movements, edema, impairment in blood flow or peripheral circulation, cancer-induced pain, and difficulty breathing.
- (2) Verify the site and shape of each pressure ulcer as well as the direction of the pocket, if present. Explore possible cause for developing a bedsore or pressure sore. Identify the direction of the pocket by imagining the patient's head as at the 12 o'clock position and feet at the 6 o'clock position. Examine possible influencing factors, such as raising the head or feet, body position changes, patterns of moving around or the movement to transfer to a wheelchair, body position when lying in a bed or seated in a wheelchair, and care methods. The effect of shoes or socks should also be considered for a pressure ulcer on the foot.
- (3) Observe the color of each pressure ulcer. Check for the presence of infection or inflammation, necrotic tissue and accompanying stiffness, presence of epithelialization, and the nature of granulation tissue (i.e., benign or malignant). Family members or long-term care service staff may observe the wound, since medical staff are not always available. Therefore, the terms used in expression should be easy to understand for non-medical people (e.g., "color of beef" for benign granulation). When the granulation color changes (e.g., to the color of chicken or pork, or when a part of a granulation suddenly turns black ["decubitus in decubitus"]), medical staff and family members should preferably discuss the possible causes together.
- (4) Monitor the skin that surrounds the wound. Check for possible fungal infection, such as eumycetes or candidal infection due to prolonged use of a diaper; sagging of the skin; recurrence of pressure ulcers; and the presence of skin rash due to taping, incontinence, or diarrhea. Other factors to examine include possible consequences of skin care methods; incontinence management methods including the use of adult diapers, caregivers' skill level, and care methods; and the validity of services.
- (5) Recheck the physician's instructions. Changing a topical medicine or dressing material frequently according to the condition of the wound, which is possible in hospital care, is often difficult in the home-care environment. Therefore, moisture balance of the patient's skin needs to be controlled through adaptive measures, such as applying the prescribed topical medicine according to its basic characteristics and using gauzes and film dressings in combination (Furuta 2006). The outcome of the conference discussion may need to be shared with the attending physician from time to time, and in many cases this leads to changes in the instructions to appropriate dressing materials or topical medicine. It is also important to assess how family members are practicing the instructed treatment every day.
- (6) Consider consulting other specialists. Many physicians involved in visiting care are internists. Therefore, the attending physician may need to consult other specialists (e.g., a dermatologist, plastic surgeon, or surgeon). A home visiting nurse may serve as a mediator in such cases.
- (7) Review the frequency of visiting nursing. Visiting nursing must be provided once a day when a patient has severe pressure ulcers or is undergoing postsurgical debridement. The frequency may be changed as a patient's condition improves; for example, a once-weekly visiting nursing may be appropriate, depending on the condition of pressure ulcers or care environment.
- (8) Share information, including that of nutritional management, and have means for multidisciplinary collaboration. Medical staff are not always the ones providing treatment or care in the home. Different roles that home visiting nurses, family members, caregivers, or other care providers fulfill should be discussed at a conference meeting.

### Outcome of the patients in FY 2012

Thirty three patients were the subject of the FY 2012 conference meeting of the Takashimadaira Home Nursing Station. Of those, 26 had pressure ulcers; 7 pressure ulcers were in Stage I, according to the National Pressure Ulcer

Advisory Panel (NPUAP) classification; 6 were in Stage II; 5 were in Stage III; and 8 were in Stage IV. The 13 patients with pressure ulcers in NPUAP Stages III and IV had been either discharged from the hospital with these ulcers or been introduced to our home nursing station due to these ulcers from their care managers. The 13 patients with pressure ulcers in Stages I and II completely healed in about 1 month, except for those whose service was terminated due to hospitalization or other reasons. Of the 13 patients with Stage III or IV pressure ulcers, 5 either passed away or were hospitalized, 4 are still receiving care, and 4 completely healed in 77-203 days.

## Conclusion

The necessity of visiting nursing will only increase in order to support both medical care and long-term care, and high-quality nursing will be in demand as well. More than 1,700 nurses in Japan are certified as the skincare and excretion care nurse, which requires a special training in pressure ulcer management. However, as matters now stand, less than 1% of them work at home nursing stations. Therefore, each home nursing station must have an original care program and make an effort to improve the quality of the nursing care service it provides.

We believe that we were able to achieve good results in our station by our special efforts,

including holding the conference about the pressure ulcers and wound once a week. Family members and long-term care service staff have also started practicing evidence-based care and applying their own initiative to prevent and heal pressure ulcers. Because the conference has been producing excellent results, our nurses have been able to gain more knowledge and skill, and it also made easy for other support members including family members to join and cooperate in our efforts. We recently had an opportunity to address residents of adjacent university hospitals and visiting care physicians in the neighborhood and invited them to participate in our conference. Our approach of caring patients with pressure ulcers as a team is expected to spread to other communities.

## References

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