Case report: Nursing care plan of Alzheimer's disease patient with COVID-19

Aykse TOSUNa, Hale TOSUNb

ABSTRACT

Objective: Elderly people with comorbidities are defined in the high-risk group for COVID-19 by the World Health Organization. Experiencing COVID-19 infection in elderly people with cognitive decline is a burden for both healthcare professionals and healthcare institutions. The use of the nursing process is extremely necessary and important in order to reduce this burden, provide the desired quality of care, treat the individual with a holistic approach and use time effectively. The aim of the study is to determine the basic nursing diagnoses, interventions and outcomes for the Alzheimer's disease patient with COVID-19 by using standard nursing terminology. Methods: This study is a case report of Alzheimer’s disease patient with COVID-19. The data were evaluated in accordance with the Life Activities Model of Roper, Logan, and Tierney. The care plan is presented in accordance with the North American Nursing Diagnosis Association-International (NANDA-I) Taxonomy II Nursing Diagnosis and Nursing Interventions Classification (NIC). Results: Improvement was observed in the problems identified in the case as a result of the care plan created objectively in line with NANDA-I and NIC and appropriate nursing diagnoses and interventions. Conclusion: Patient follow-up and providing qualified nursing care are of great importance during the COVID-19 pandemic, NANDA-I and NIC are important guides in determining the comprehensive and objective care needs of patients with COVID-19, clinical decision making and practices.

Keywords: Alzheimer's disease, COVID-19, NANDA-I, NIC, nursing

Olgu sunumu: COVID-19 tanılı Alzheimer hastasında hemşirelik bakım planı

ÖZET


Anahtar Kelimeler: Alzheimer hastalığı, COVID-19, NANDA-I, NIC, hemşirelik

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4University of Health Sciences, Hamdiye Faculty of Nursing, Istanbul, Türkiye, e-posta: ayse.tosun@sbu.edu.tr ORCID: 0000-0001-9018-9262
5Balikesir University Faculty of Health Sciences Department of Nursing, Balikesir, Istanbul, Türkiye, e-posta: hale.tosun@balikesir.edu.tr ORCID: 0000-0001-5362-6793

Sorumlu Yazar/Correspondence: Hale Tosun e-posta: hale.tosun@balikesir.edu.tr

INTRODUCTION

The coronavirus disease 2019 (COVID-19) was first detected by the World Health Organization (WHO) in Wuhan, Hubei Province of China, and the first detection in Turkey was made on March 11, 2020.\(^1\) In a very short time, COVID-19 turned into a pandemic that negatively affected the economy as well as human health at the global level.\(^2\) By the end of November 2023, the COVID-19 pandemic has caused 6,978,175 deaths and 771,820,937 confirmed cases globally.\(^3\)

It has been reported by WHO that deaths are more common, especially in the elderly and individuals with chronic diseases, as well as mild or asymptomatic cases due to COVID-19 and individuals with underlying chronic disease are at greater risk for COVID-19.\(^4\) Chronic diseases, weakness of the immune system and the development of respiratory failure together with the disease are effective in increasing mortality rates.\(^5\)

Although COVID-19 affects people of all ages, the elderly and people with chronic diseases are more affected.\(^7\) In general, age, dementia, chronic diseases such as cardiovascular disease, hypertension, diabetes mellitus and obesity are major risk factors for COVID-19. Particularly individuals with cognitive impairment are considered vulnerable to this infection.\(^8\)

According to 2023 data, there are over 55 million dementia patients in the world.\(^9\) The COVID-19 outbreak has also affected patients with Alzheimer's disease (AD). In addition to the cognitive and behavioral problems that arise due to dementia in this patient group, symptoms related to the diagnosis of COVID-19 make care more difficult.\(^10\)

For all these reasons, experiencing COVID-19 infection in elderly people with cognitive decline is a burden for both healthcare professionals and healthcare institutions. The use of the nursing process in care practice is extremely necessary and important to reduce this burden, to have the desired quality of care, to handle the individual with a holistic approach, and to use of time effectively.

The nursing process, which is a systematic problem-solving method, provides a basis for the nurse's practice using her knowledge and skills. Although it is a systematic evaluation method, it also provides the diagnosis, planning, implementation and evaluation of individualized care. In this way, it forms the basis of nursing practices based on scientific problem-solving method. At the same time, it allows the nurse to present their knowledge and skills within a certain framework, as well as providing continuity in care.\(^11\)

Nursing diagnoses are used in the effective management of the nursing process. Nursing diagnosis is defined as clinical decisions that are actual or potentially determined regarding the status of the individual, family or group and these clinical decisions are a comment and conclusion about patient’s needs, interests or health problems, or the decisions to act or not.\(^12\) NANDA-I taxonomy created by the North American Nursing Diagnosis Association for nursing practices; includes 13 domains, 47 classes, and 244 nursing diagnoses.\(^13\) It is extremely important to plan appropriate interventions after determining the nursing diagnosis. For this reason, Nursing Intervention Classification (NIC) is used. NIC is one of the nursing classification systems in which nursing practices are standardized.\(^14\) It can be used in care plans for individuals and families, in all clinics and specialty areas where nursing practices exist.\(^15\) There are 30 classes, 565 initiatives and 7 domains.\(^16,17\)

In this case report, the aim is to create a care plan in line with NIC nursing interventions by using NANDA-I diagnoses of Alzheimer's disease patient with COVID-19 and hospitalized in the ward.

METHOD

The case was diagnosed according to the Life Activities Model of Roper, Logan and Tierney.

Case Report

The 88-year-old female case had been suffering from Alzheimer's disease for about 10 years. She had two sons and had been living in a nursing home for the last 5 years. She had no alcohol or smoking habits. She was brought to the hospital with respiratory distress and high fever on April 10, 2020. Laboratory findings and vital signs are included in Box 1.

<table>
<thead>
<tr>
<th>Laboratory Findings</th>
<th>The reference range</th>
<th>Laboratory Findings</th>
<th>The reference range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphocyte: 37.6%</td>
<td>10.00-50.00%</td>
<td>C-Reactive Protein: 4.3</td>
<td>0.0-0.5 mg/dL</td>
</tr>
<tr>
<td>Leukocyte: 4.59</td>
<td>4.000-10.000</td>
<td>Blood Urea Nitrogen: 42</td>
<td>15.00-40.00 mg/dL</td>
</tr>
<tr>
<td>Neutrophil: 55.6%</td>
<td>40.00-80.00%</td>
<td>Creatine: 1.48</td>
<td>0.72-1.25 mg/dL</td>
</tr>
<tr>
<td>Hemoglobin: 13</td>
<td>12.0-16 g/dL</td>
<td>Aspartate Aminotransferase: 113</td>
<td>5.0-34.0 U/L</td>
</tr>
<tr>
<td>Platelets: 209,000</td>
<td>150,000-450,000/mm3</td>
<td>Alanine Aminotransferase: 111</td>
<td>0.0-55.0 U/L</td>
</tr>
<tr>
<td><strong>Vital Signs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature: 38 °C</td>
<td></td>
<td>Blood Pressure: 130/80 mmHg</td>
<td></td>
</tr>
<tr>
<td>Pulse: 104 /min.</td>
<td></td>
<td>Respirations: 27/min.</td>
<td></td>
</tr>
</tbody>
</table>

Box 1. Laboratory findings and vital signs
RESULTS

Medical Treatment
Medication was started with Favipiravir 2X600 mg (PO), Heparin 2 X 0.8 IU (SC), Ecolpirin 2 X 100 mg. (PO) Zitro 1X500 mg (PO), Tamiflu 2X75 mg (PO), Plaquenil 2X400 mg (PO) and intravenous infusion with Isotonic NaCl (1000 ml) on April 10, 2020. In addition, Exelon patch 9,5 mg/24 h (transdermal patch) used by the case for AD was continued. 8 lt/min oxygen therapy, daily ECG monitoring, and 2 X 1 blood glucose measurement were performed.

Nursing Diagnosis in Line with Life Activities

Model of Roper, Logan and Tierney

Daily Living Activity 1- Maintain a Safe Environment
She was hospitalized with the diagnosis of COVID-19 based on Polymerase Chain Reaction (PCR) test and computed tomography (CT). Glasgow Coma Scale was 10/15 points at hospitalization.

Daily Living Activity 2- Communication
The case was responding only to painful and verbal stimuli, had no orientation, was prone to sleep and was very slow to perceive.

Daily Living Activity 3- Breathing
Respiratory rate of the case with respiratory distress was 27/min and bilateral rales were detected on physical examination on admission to the ward. Oxygen saturation was 80% in room air, between 88-90% with nasal cannula (8 lt / min.)

Daily Living Activity 4- Food
The case was reluctant to eat and only took oral fluids. She took 1000 ml of fluid orally in the first 24 hours. Prosthetic teeth had been removed on admission. Fasting blood glucose at hospitalization was determined as 229 mg/dl. Blood glucose measurement was controlled twice a day. Body mass index was 21.3 kg / m2 (150 cm and 48 kg). The mucous membrane was quite dry. Total protein (6.7g/dl.) and albumin (3.7g/dl.) levels were within the reference range.

Daily Living Activity 5- Elimination
She had difficulty in controlling her urination. Hourly urine output varied between 20-30 ml. 1500 ml of urine was output in the first 24 hours. She defecated after the first 24 hours.

Daily Living Activity 6- Personal Hygiene and Clothing
She was meeting all personal needs with assistance and had difficulty cooperating with hygienic requirements.

Daily Living Activity 7- Body Temperature
The tympanic body temperature was 38 ° C on admission to the war. The facial area, especially the cheeks, was red.

Daily Living Activity 8- Mobility
She could move in bed with assistance as her mobility was limited. Position change was provided at least every two hours. She was evaluated as high risk with a score of 7 in terms of pressure ulcer risk according to the Braden Risk Assessment Scale. Since the score obtained on the Itaki fall risk scale was 11, the fall risk was also determined as high.

Daily Living Activity 9- Work and Leisure
The case was a housewife and she had received a pension from her husband. She had been living in a state-owned nursing home for about 5 years.

Daily Living Activity 10- Expressing Sexuality
She had gone through menopause at the age of 40 and her husband had died 20 years ago.

Daily Living Activity 11- Sleep
The case was prone to sleep and preferred to sleep in the semi-fowler position. She was waking up intermittently due to respiratory distress.

Daily Living Activity 12- Dying
No information could be obtained about the patient's feelings towards death. However, she had expressions such as “help me” during periods of intense respiratory distress.

DISCUSSION

People with dementia have limitations in accessing accurate information and facts about the COVID-19 pandemic. They may have difficulty remembering self-protection procedures, such as wearing a mask, or understanding the information provided. They may ignore warnings because of not understanding. Therefore, they are in the higher risk group. In addition, nursing homes have been the most vulnerable places against COVID-19, as they are living spaces for the elderly with chronic diseases. This situation has resulted in a high rate of serious complications and mortality. This case is in the risk group due to the diagnosis of Alzheimer's and living in a nursing home.

Communication Activity
Environmental changes cause more intense cognitive, behavioral and psychological effects in elderly patients with dementia. Although the mood of people with dementia has changed during the COVID-19 pandemic, they may not want to communicate with the others due to hopelessness, especially in patients with AD. Although this case responded to painful and verbal stimuli, she had a greater desire for more sleep. She was reacting to verbal stimuli, but sometimes had
difficulty doing what was asked. From time to time she asked the question of where she was. After the first 7 days, she started to adapt to the environment and behave more collaboratively towards the verbal requests of nurses (Table 1).

Breathing Activity

Although fever and respiratory tract infection symptoms and pneumonia findings are observed in moderate cases with COVID-19, in severe cases, respiratory rate is 30/min or oxygen saturation is ≤93%. The respiratory rate of this case with respiratory distress was 27/min on admission to the ward. Bilateral rales were detected on physical examination. Oxygen therapy was performed with a nasal cannula (8 lt/min). Breathing continued rapidly and deeply. On the 7th day of hospitalization, dyspnea was relatively decreased. Oxygen saturation was around 90% (Table 1).

Food Activity

The restriction and isolation caused by COVID-19 is shown as a factor affecting anorexia and malnutrition in particular due to the interruption of activities that facilitate nutrition and social life. In connection with this, loss of appetite is frequently reported. When this case was first admitted to the hospital, she had a very poor appetite. Breathing difficulties also triggered reluctance in eating activities. For this reason, she was fed frequently but in small amounts with light, soft and fibrous foods. There was no weight loss that would take the BMI out of normal range. Dental prostheses were definitely placed before each feeding. Although fasting blood glucose was 229 mg/dl during hospitalization, frequent and low-interval diet-oriented nutrition prevented fluctuation in blood glucose. She was followed up with twice daily blood glucose measurements. Although the oral mucous membrane was dry, it improved with the support of fluid intake (Table 1).

Elimination Activity

It has been reported that diarrhea may occur in addition to the predominant symptoms. However, in this case, there was no problem related to bowel evacuation such as diarrhea or constipation. Urinary control was achieved without inserting a urinary catheter for the first 7 days but, since the incontinence continued, a foley catheter was applied on the 8th day. Genital area was cleaned frequently, and no urinary tract infection was observed (Table 1).

Personal Hygiene and Clothing Activity

A general lack of motivation or interest in activities is increasingly experienced in individuals with dementia during the COVID-19 pandemic. Apathy has been reported as the most common behavioral disorder to occur in prolonged isolation, particularly from social restriction associated with COVID-19. Patients with apathy are less likely to initiate behaviors necessary to prevent transmission of the virus, including self-care and personal hygiene, hand washing, or covering their mouth while coughing. In this case, she was able to meet all of her personal needs with assistance. She had difficulty in cooperating in meeting her hygienic needs due to communication problems and reluctance to participate. She was completely dependent on others to meet her hygienic needs during her stay in the hospital (Table 1).

Body Temperature Activity

Although the symptoms present at the beginning of the disease vary, one of the most common symptoms is fever. It was reported that only 43.8% of the patients had fever at the first admission and 87.9% of them had fever after hospitalization. However, people who are elderly or immunocompromised may not have a fever. When the case was admitted to the ward, the body temperature taken from the tympanic way was 38 °C. The body temperature was 38-38.5 °C for the first 10 days, and 37-37.5 °C after the 11th day (Table 1).

Mobility Activity

Prolonged apathy may also cause patients to spend more time in bed, increasing the risk of pressure ulcer. This case was assessed as high risk for pressure ulcer with a score of 7 on the Braden Risk Assessment Scale. Despite limited mobility, the case was turned in bed with assistance in two hours. No pressure ulcer was observed. Falls are a common problem affecting the elderly. According to the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) reports, one in three elderly over 65 years old and 50% of the elderly over 80 years old fall each year. Especially cognitive decline is one of the most important factors that increase the fall risk. It has been shown that lack of physical exercise in a short period of three months in elderly individuals causes further decline in cognitive functions. In this case, as well, decrease in cognitive competence and inactivity emerge as factors that increase the fall risk. Despite the high fall risk of 11 score on the Itaki fall risk scale, there was no fall in this case (Table 1).

Discharge Process

The case was discharged on May 07, 2020 after a 27-day hospitalization period. The vital signs were as follows; body temperature was 36 °C (fever was within normal range in the last 48 hours), pulse was 100/min., respiration was 22/min., blood pressure was 110/70 mm/Hg and saturation was 95%. It was immunoglobulin M(IGM) + and immunoglobulin G(IGG) + as a result of the rapid test. A control appointment was made for two weeks later.
<table>
<thead>
<tr>
<th>Nursing Diagnosis*</th>
<th>Nursing Initiatives**</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 2. Nutrition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 1. Ingestion</td>
<td>Nutrition therapy (1120)</td>
<td>BMI: 21.3 kg / m²</td>
</tr>
<tr>
<td>Defining characteristics: Insufficient interest in food, Alteration in taste sensation</td>
<td>Nutrition management (1190)</td>
<td>Lack of appetite continues.</td>
</tr>
<tr>
<td>Related factors: Insufficient dietary intake</td>
<td>The number of calories and type of nutrients needed to meet nutrition requirements, as appropriate were determined in collaboration with the dietician.</td>
<td>She is fed in small amounts at more frequent intervals.</td>
</tr>
<tr>
<td>Diagnosis: Imbalanced nutrition: less than body requirements (00002)</td>
<td>Oral care was provided before meals, as needed</td>
<td>Light, soft and fibrous foods were preferred in her diet.</td>
</tr>
<tr>
<td>Expected Result:</td>
<td>Light, soft and fibrous foods were preferred in the diet.</td>
<td>Total protein and albumin levels are within the reference range.</td>
</tr>
<tr>
<td></td>
<td>Foods were served at a temperature suitable for consumption.</td>
<td>Blood glucose level is normal.</td>
</tr>
<tr>
<td></td>
<td>Dental Prostheses were placed before the meal.</td>
<td>No weight loss.</td>
</tr>
<tr>
<td><strong>Domain 3. Elimination and exchange</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 1. Urinary function</td>
<td>Urinary incontinence care (0610)</td>
<td>Incontinence pad was used for the first 7 days.</td>
</tr>
<tr>
<td>Defining characteristics: Urinary incontinence</td>
<td>Privacy for elimination was provided.</td>
<td>Since the incontinence continued, a Foley catheter was applied on the 8th day.</td>
</tr>
<tr>
<td>Related factors: Multiple causality</td>
<td>Urinary elimination was monitored including frequency, consistency, odor, volume, and color.</td>
<td>The genital skin area was cleaned every morning and evening.</td>
</tr>
<tr>
<td>Diagnosis: Impaired urinary elimination (00016)</td>
<td>The appropriate incontinence pad was chosen.</td>
<td>The urine culture result was negative.</td>
</tr>
<tr>
<td>Expected Result:</td>
<td>Protective garments were chosen.</td>
<td>BUN: 42 mg/dL</td>
</tr>
<tr>
<td></td>
<td>Urinary incontinence will be provided.</td>
<td>Creatine: 1.48 mg/dL</td>
</tr>
<tr>
<td></td>
<td>Urinary discharge control will be provided.</td>
<td>In monitoring the daily fluid intake and output, the 24-hour balance is 200 ml.</td>
</tr>
<tr>
<td></td>
<td>Urinary infection development will be prevented.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain 3. Elimination and exchange</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 4. Respiratory function</td>
<td>Airway management (3140)</td>
<td>Breathing was fast and deep.</td>
</tr>
<tr>
<td>Defining characteristics: Dyspnea, hypoxemia</td>
<td>Oxygen therapy (3320)</td>
<td>Arterial blood gas: 7.34 mEq/L. On the 7th day of hospitalization, dyspnea decreased.</td>
</tr>
<tr>
<td>Related factors: Alveolar-capillary membrane changes</td>
<td>Respiratory and oxygenation status was monitored.</td>
<td>Oxygen saturation: 90%</td>
</tr>
<tr>
<td>Diagnosis: Impaired gas exchange (00030)</td>
<td>A position was placed to support comfortable breathing.</td>
<td></td>
</tr>
<tr>
<td>Expected Result:</td>
<td>Oral and nasal secretions were cleared.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airway patency will be maintained.</td>
<td>Oxygen therapy was administered as 8 l/min with canul.</td>
</tr>
<tr>
<td></td>
<td>There will be no dyspnea and lung sounds will be evaluated.</td>
<td>The oxygen liter flow was monitored.</td>
</tr>
<tr>
<td></td>
<td>The development of respiratory complications will be prevented.</td>
<td>The effectiveness of oxygen therapy was monitored.</td>
</tr>
<tr>
<td><strong>Domain 4. Activity/rest</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 4. Cardiovascular/pulmonary responses</td>
<td>Activity therapy (4310)</td>
<td>Activity intolerance continued.</td>
</tr>
<tr>
<td>Defining characteristics: Fatigue, Exertional dyspnea</td>
<td>Bed rest care (0740)</td>
<td>She was mobilized in bed with assistance.</td>
</tr>
<tr>
<td>Related factors: Imbalance between oxygen supply/demand</td>
<td>She was assisted with her activities of daily living.</td>
<td>Hemoglobin: 13 g/dL.</td>
</tr>
<tr>
<td>Diagnosis: Activity intolerance (00092)</td>
<td>She was turned at every 2 hours according to a specific schedule.</td>
<td>Oxygen saturation: 90%</td>
</tr>
<tr>
<td>Expected Result:</td>
<td>Passive range of motion exercises were performed in the bed.</td>
<td></td>
</tr>
<tr>
<td>She will be supported to increase activity tolerance</td>
<td>Bedding was ensured to be clean, dry and wrinkle-free.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The appropriate position has been given.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain 4. Activity/rest</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 5. Self-care</td>
<td>Self-care assistance (1800)</td>
<td>Bathroom and hygienic needs were met with the assistance.</td>
</tr>
<tr>
<td>Defining characteristics: Impaired ability to wash body</td>
<td>Self-care assistance: Bathing/hygiene (1801)</td>
<td>Lightweight and easy-to-move clothing was dressed.</td>
</tr>
<tr>
<td>Related factors: Weakness, decrease in motivation, cognitive impairment</td>
<td>Amount and type of assistance needed have been determined.</td>
<td>It continues to be unable to independently meet her hygienic requirements.</td>
</tr>
<tr>
<td>Diagnosis: Bathing self-care deficit (00108)</td>
<td>She was assisted in providing self-care.</td>
<td></td>
</tr>
<tr>
<td>Expected Result:</td>
<td>Support was provided in ensuring the participation of the patient.</td>
<td></td>
</tr>
<tr>
<td>Needs for self-care will be met.</td>
<td>Oral care was done.</td>
<td></td>
</tr>
<tr>
<td>Patient participation will be provided to the extent possible.</td>
<td>Body cleaning was done inside the bed.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain 5. Perception/cognition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 5. Communication</td>
<td>Communication enhancement: Speech deficit (4976)</td>
<td>She had difficulty expressing herself.</td>
</tr>
<tr>
<td>Defining characteristics: Difficulty comprehending communication, difficulty verbalizing</td>
<td>Frustration, anger, depression, or other responses to impaired speech capabilities were monitored.</td>
<td>She gave very short responses like “I have difficulty breathing” or “I have pain”.</td>
</tr>
<tr>
<td>Related factors: Alternation in self-concept</td>
<td>The communication style of the patient was followed in order to meet her needs.</td>
<td></td>
</tr>
<tr>
<td>Diagnosis: Impaired verbal communication (00051)</td>
<td>Noise was prevented to reduce sensory stress.</td>
<td></td>
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<tr>
<td></td>
<td>What her said to ensure accuracy was repeated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The conversations were done slowly.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short and simple expressions were used.</td>
<td></td>
</tr>
</tbody>
</table>
### Expected Result:

**Domain 11. Safety/protection**  
**Class 2. Physical injury**  
**Risk factors:** Inadequate oral hygiene, barrier to oral self-care  
**Diagnosis:** Risk for impaired oral mucous membrane integrity (00247)  
**Expected Result:** Oral mucous membrane integrity will be preserved.  

| She was encouraged to express herself in a way that she could easily see us. | Oral health restoration (1730)  
| Oral health maintenance (1710)  
| Nutrition and fluid intake was monitored.  
| Dry mouth was followed.  
| Oral care was done.  
| The mouth was rinsed with drinking water.  
| She was supported in terms of oral fluid intake.  
| She was evaluated for mucositis.  
| Lubricant was applied to moisturize the lips. | Oral mucous membrane integrity was not compromised. |

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### Domain 11. Safety/protection

**Class 2. Physical injury**  
**Risk factors:** Decrease in mobility, Braden Risk Assessment Scale score, hyperthermia, cognitive impairment  
**Diagnosis:** Risk for pressure ulcer (00249)  
**Expected Result:** Pressure ulcer will be prevented.

| Pressure ulcer prevention (3540)  
| Risk factors was evaluated with Braden Risk Assessment Scale.  
| Skin status was monitored on admission and daily.  
| The dampness caused by sweating and motinnance was removed.  
| The position was changed every 2 hours.  
| It was supported with a pillow to elevate to the areas in contact with the bed.  
| Bedding was ensured to be wrinkle free and dry.  
| Dry skin area moistened.  
| The area with bone protrusion was not massaged.  
| Elbow and heel protectors were applied.  
| “Donut” type devices were not used in the sacral area.  
| Friction was prevented during rotation in the bed.  
| Mild pH soap was used for skin cleansing.  
| Very hot water was not used while taking a bath. | Pressure ulcer was not seen.  
| She was mobilized in bed with assistance. |

| Fall prevention (6490)  
| Fall risk assessment was made every day.  
| Bed lock and side rails were kept closed.  
| Bed level adjusted properly.  
| Necessary arrangements were made regarding the physical environment that could cause a fall during the movement.  
| Adequate lighting was provided to support vision.  
| She used shoes that fully grasped her feet to get her out of bed. | There is no change in the falling risk score of the itaki.  
| The fall did not occur. |

| Bleeding precautions (4010)  
| She was monitored closely for signs and symptoms of internal and external hemorrhage (petechiae, ecchymosis, hematoma, hematuria, hematemesis, hemoptyisis, etc.).  
| Monitoring of intake and output was carefully done.  
| IV access was maintained, as appropriate.  
| Hemoglobin and hematocrit levels were monitored. | No signs or symptoms of bleeding developed. |

| Hyperthermia treatment (3786)  
| Airway patency ensured.  
| Vital signs were monitored.  
| Oxygen therapy was applied in accordance with the treatment plan.  
| Clothes were loosened.  
| Oral rehydrating solution was provided.  
| External cooling methods (e.g., cold packs to neck, chest, abdomen, scalp, armpit) were applied.  
| Intra venous (IV) access was established.  
| Urine output was monitored.  
| Electrolytes and arterial blood gases were monitored.  
| Abnormalities in mental status were monitored. | Body temperature was 38-38.5 °C for the first 10 days.  
| From the 11th day, it continued in the range of 37-37.5 °C. |

**CONCLUSION**

Nursing care models are necessary for the holistic evaluation of the patient and providing a common terminology among nurses. As long as the vaccination against COVID-19 is not completed all over the world, it is possible to face with more treatment and care of the elderly and chronic patients who are accepted as a risky group. Alzheimer's is an irreversible and progressive process. In these patients, memory, motor skills and social communication are also impaired, as well as a high level of insufficiency in meeting daily life activities. The fact that the patient is also diagnosed with COVID-19 may cause more difficulties for both herself and the nurses in establishing communication and meeting the needs. During the COVID-19 pandemic, patient monitoring and providing qualified nursing care are of great importance. As a result, accurate diagnosis of the patient with COVID-19 with NANDA-I and comprehensive and objective care
needs of with NIC provide guidance in clinical decision-making and applications. In addition, it is effective and important for nurses to use their time better and prevent loss of work force, and allows individualized care to be given at an optimal level. As a result, despite all these difficulties, the case was discharged at the end of 27 days with the symptoms related to the COVID-19 disappeared and the PCR test is negative, in line with the nursing interventions in accordance with the nursing diagnoses with a good follow-up as well as the medical treatment.

**Ethical consideration**

The study was carried out according to the principles of the Declaration of Helsinki. Within the scope of the study, the patient was expressed as a case in order to protect the privacy of the individual. Before the data collection phase, consent was obtained from the legal guardian of the patient by giving information about the purpose of the study. It was informed that the information regarding the case would be used for scientific purposes and would not be shared with other individuals or institutions.

**Yazar Katkuları**

Çalışma fikri/tasarımı: AT, HT
Veri toplama: AT, HT
Veri analizi ve yorumlama: AT, HT
Literatür tarama: AT, HT
Eleştirel inceleme: AT, HT
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**REFERENCES**


