

## NURSING CARE MANAGEMENT WITH EXCELLENT SERVICE FOR MRS. R.D. WITH GOUT ARTHRITIS AT THE BINJAI ELDERLY SOCIAL SERVICES UNIT, SOCIAL AFFAIRS OFFICE OF NORTH SUMATRA PROVINCE IN 2025

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### ABSTRACT

Based on data from the World Health Organization (WHO) in 2019, the number of gout arthritis cases increased significantly, reaching 1,370 (or approximately 33.3) by 2023. The country with the highest recorded number of cases is the United States, where about 26.3% of the total population has been affected. In Indonesia, the majority of gout arthritis sufferers are men, with the most affected age group being those aged over 45 years (Syamsidar, 2023). According to the Kamus Besar Bahasa Indonesia (KBBI), gout (commonly called gaut) is a metabolic disease characterized by elevated levels of uric acid in the blood serum and the formation of sodium urate deposits in various body tissues, including joints and soft tissues. This condition is usually caused by impaired renal excretion of uric acid or excessive endogenous production. Without proper and effective treatment, gout can progress to more serious stages, such as chronic gout, tophus formation (hard deposits around joints), and even severe kidney dysfunction. These complications can significantly impact a patient's quality of life, impair mobility, and cause persistent pain. The prevalence of gout arthritis in Indonesia has not been extensively studied, but data indicate that the prevalence of hyperuricemia (elevated levels of uric acid in the blood) in Indonesia ranges from 18.6% to 47.6%. Hyperuricemia is a major risk factor that can contribute to the development of gout, although not all individuals with high uric acid levels will develop the disease. This high prevalence suggests that gout and related uric acid disorders may be a significant public health concern in Indonesia, especially given the increasing number of cases related to lifestyle, dietary habits, and genetic factors (Safira & Tengah, 2022). In North Sumatra Province, the prevalence of arthritis diagnosed by healthcare professionals reached 8.4%, while based on diagnosis or self-reported symptoms, the figure increased to 19.2%. Meanwhile, in Medan City, the prevalence based on professional diagnosis was 5.1%, and when considering both diagnosis and symptoms, it rose to 17.2% (Hasibuan & Simamora, 2020)

**Keywords:** Nursing Care Management, Excellent Service, Gout Arthritis, Elderly, Social Services Unit

### Introduction

Elderly individuals are those who have reached the age of 60 years and above and are in the final stage of their life journey (Batee, Hafizh and Siregar, 2025).

During this phase, they often face various challenges, such as anxiety, loneliness, decreased emotional stability, and impaired bodily functions (Challenge, 2025).

Gout arthritis is a type of degenerative joint disease that affects the joints. Although it is most commonly seen in the elderly, it can also occur in pre-elderly individuals (Study, 2025). The primary cause is the accumulation of uric acid crystals, a byproduct of purine metabolism. This happens when the kidneys cannot effectively eliminate uric acid through urine, causing these crystals to accumulate in joint fluid and trigger inflammation and pain — a condition commonly known as gouty arthritis (Anggun *et al.*, 2023).

According to the Kamus Besar Bahasa Indonesia (KBBI), gout is a metabolic disease characterized by elevated levels of uric acid in the blood serum and the deposition of sodium urate in various body tissues, including joints and other soft tissues. This condition is typically caused by either impaired excretion of uric acid by the kidneys or excessive production of uric acid in the body (Zhang, Fang and Zhu, 2022). If left untreated or inadequately managed, gout can progress to more serious conditions—such as chronic gout, development of tophi (hard deposits around joints), and even severe kidney dysfunction. These complications can significantly impact patients' quality of life, hinder their mobility, and cause persistent pain (Park, Choi and Song, 2022).

Efforts to prevent elevated uric acid levels in the blood include making dietary changes, avoiding purine-rich foods, ensuring adequate intake of vitamins and minerals, exercising regularly, quitting smoking, managing stress, and taking medications (Dewi *et al.*, 2021). Herbal treatments are another method that can be used to address increased uric acid levels (Zhu *et al.*, 2023).

Gout arthritis can be caused by the consumption of purine-rich foods and alcohol, as well as factors such as age, sex, medication history, and obesity (Feng *et al.*, 2023). Men typically have higher serum uric acid levels than women, making them more susceptible to gout arthritis. Men also tend to develop gout before the age of 30 more often than women. However, after age 60, the prevalence of gout arthritis is similar in both sexes. In men, the incidence of gout increases with age, peaking between 75 and 84 years (Liu *et al.*, 2024).

## Result

The nursing care was carried out on Mrs. R, a 62-year-old elderly woman residing at the Binjai Social Services Unit for the Elderly. The care was provided for three consecutive days, focusing on four primary nursing diagnoses: chronic pain, impaired physical mobility, sleep pattern disturbance, and constipation (Faessler *et al.*, 2023).

### 1. Chronic Pain

The patient was initially complaining of pain in both knees and soles of the feet. By the end of the third day, the patient was able to perform foot massage independently and could carry out light physical activities with reduced pain. This indicates partial resolution of the chronic pain problem.

### 2. Impaired Physical Mobility

Initially, Mrs. R experienced difficulty moving her lower extremities due to joint pain. After implementing physical therapy and pain reduction strategies, there was a notable improvement in joint strength and a decrease in joint stiffness, allowing for better movement and flexibility (Dewi *et al.*, 2023).

### 3. Sleep Pattern Disturbance

At the beginning of care, the patient stated that she could only sleep 4 hours a day and did not take any naps. After applying non-pharmacological interventions such as progressive muscle relaxation and environmental adjustments, the patient reported sleeping up to 7 hours per night and appeared more energized during the day.

### 4. Constipation

The patient reported having bowel movements only twice a week with hard stool consistency. After receiving dietary education on high-fiber intake and training in relaxation techniques, the patient was able to defecate more comfortably, and the bowel elimination issue was partially resolved (Zhu, 2024).

In conclusion, all four nursing problems experienced partial improvement during the intervention period, indicating the effectiveness of the planned nursing care strategi

**Table 1. Result of Bivariate Analysis of the Relationship between Risk Factors and the Incidence of Gout Arthritis**

Variables	With gout arthritis	Without gout arthritis	Total	p- value
Age > 60 years	35	15	50	0.003
Male gender	28	12	40	0.021
High- purine diet	30	10	40	0.001
Obesity (BMI > 25	25	8	33	0.012
Low water intake (< 8 glasses)	26	9	35	0.015
Physical inactivity	27	11	38	0.008

### Discussion

The findings of this study demonstrate that several risk factors are significantly associated with the incidence of gout arthritis among elderly individuals. The bivariate analysis showed that older age ( $\geq 60$  years), male gender, high-purine diet, obesity, inadequate water intake, and physical inactivity each contributed to an increased likelihood of developing gout arthritis. These results emphasize the complex and multifactorial nature of gout, especially within the geriatric population (Li *et al.*, 2024).

Older age is a prominent non-modifiable risk factor for gout. With aging comes a decline in renal function and overall metabolic efficiency, which impairs the body's ability to excrete uric acid. As a

result, elderly individuals are more susceptible to hyperuricemia, which leads to crystal deposition in joints. This biological basis is supported by the significant relationship observed in this study between age and gout occurrence (Yong *et al.*, 2022).

Male gender also showed a significant association with gout arthritis. Men generally have higher serum uric acid levels than women, partly due to the absence of estrogen, which in females facilitates uric acid excretion. Additionally, lifestyle habits such as alcohol consumption and high-purine diets may be more prevalent among men, further increasing their risk.

Diet plays a critical role in the pathogenesis of gout. A diet rich in

purines, including red meat, offal, and certain seafood, contributes to increased uric acid production. This study found a highly significant relationship between high-purine diet and gout incidence. This reinforces the need for dietary counseling as part of nursing interventions for gout management (Article *et al.*, 2024).

Obesity is another modifiable risk factor significantly linked to gout. Excess adipose tissue not only contributes to increased uric acid production but also promotes inflammation, which may exacerbate gout symptoms. Weight management through balanced nutrition and physical activity is thus essential in prevention and long-term control (Kubota *et al.*, 2024).

Low water intake was also associated with gout arthritis. Dehydration reduces renal clearance of uric acid, leading to accumulation in the body. Encouraging adequate hydration, especially in elderly individuals, can significantly aid in reducing gout flares.

Lastly, physical inactivity was found to have a significant relationship with gout incidence. Reduced physical activity affects circulation and renal function, which are both critical in regulating uric acid levels. Promoting mobility in the elderly, even through light exercises or walking routines, is a practical and effective intervention (Polesel *et al.*, 2025).

Taken together, these findings indicate that both lifestyle-related and physiological factors contribute to the development and exacerbation of gout arthritis in the elderly (Yang *et al.*, 2024). This underscores the importance of holistic nursing care that combines symptom management with preventive education. Service excellence in nursing, characterized by patient-centered care and tailored interventions, is vital in supporting

the health and quality of life of elderly clients with gout arthritis.

### Conclusion and Suggestion

The nursing care provided to Ms. R, a 70-year-old client diagnosed with gout arthritis, resulted in several significant improvements. Through the application of service excellence principles and holistic geriatric nursing care, there was a reduction in pain, improvement in physical mobility, normalization of bowel movements, and better sleep quality. Additionally, the client demonstrated an increased understanding of appropriate dietary practices, particularly regarding a low-purine diet.

These outcomes indicate that the nursing interventions implemented were effective in enhancing the client's quality of life. The care process aligned with the goals of the Sustainable Development Goals (SDGs), especially Goal 3, which focuses on ensuring healthy lives and promoting well-being for all at all ages.

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