

## DECUBITUS CAUSES OF STROKE ELDERLY PATIENTS : *LITERATURE REVIEW*

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### ABSTRACT

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Elderly individuals who suffer from stroke are at high risk of developing pressure ulcers (decubitus) due to impaired mobility resulting from weakness in their limbs. This literature review aims to analyze and identify the contributing factors of pressure ulcers in elderly individuals with stroke. The methodology of this review uses the SPIDER technique: S (Sample), PI (Phenomenon of Interest), D (Design), E (Evaluation), and R (Research type). After reviewing ten analyzed articles, it was found that the main factors contributing to the occurrence of pressure ulcers include immobility, poor nutrition, skin moisture due to incontinence, and a lack of patient knowledge regarding their illness. Other contributing factors include changes in skin structure and ineffective wound care, both in hospitals and nursing homes. This literature review emphasizes the importance of a comprehensive approach to post-stroke elderly care, which includes family support, intensive wound care, fulfillment of nutritional needs, and regular repositioning. Preventing decubitus requires active collaboration among healthcare providers, families, and caregivers to minimize the complications that could worsen the elderly's condition. Among the various factors identified, immobility is the most dominant cause of decubitus in elderly stroke patients found in this review.

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## INTRODUCTION

Elderly Aging is a process of age-related changes that occurs when a person reaches sixty years of age or older. Elderly individuals tend to experience organ dysfunction, such as a reduced

ability of the heart to pump blood. This can lead to high blood pressure or circulatory disorders in the elderly . From the outside, body health physique elderly often attacked consequence environment physical deficiencies support For

security elderly like slippery floor , or not enough his handle hands in the bathroom (Putra & Hidayah, 2024) .

Stroke in the elderly causes disruption of blood supply to the brain, which can reduce the function of body tissues. Muscle weakness occurs in the elderly. Partial body ageing is one of the symptoms of stroke. The inability to move independently due to partial paralysis of the extremities causes older adults to spend longer periods in the same position, or often remain in a fixed position for extended periods . cause pressure on body areas certain because protrusion on the bone in the part body certain , causing risk occurrence decubitus ( injury) wound press ). On the side other , circulation blood in stroke sufferers , especially the elderly will slow down the healing process wounds , so that decubitus ulcers become significant problems in stroke patients (Putra Kusuma et al., 2022) . This complex and quite serious medical condition causes the brain to suddenly fail to supply blood throughout the body. (Darmawati et al., 2024) .

Decline elasticity quality in the elderly , resulting in risk occurrence decubitus ulcers become more big . In prevention his , elderly must always guard humidity the skin in a way periodically like give moisturizing lotion . In context other conditions too much skin moist too will form maceration and if happen friction or shift so will make it easier skin experience damage . The moisture in question is consequence from incontinence, drain wound or excessive sweating. Pressure injury, or Lots called as decubitus ulcers first marked with existence reddish Then with prominent features that is If pressed so part skin the No will return or persistent . After That appear lah edema so that the temperature around the wound area will also increasing and warming. Along with walk his

time , when matter This No with fast treated so will Keep going worsening If has reach network muscles and bones (Warozan, 2024) . Decubitus Alone have symptoms vary , depending on the stage experienced . Starting from from redness that is not is lost moment pressed, this show decubitus stage 1. Shallow , blistered wounds , sores more in Again resemble with crater until reach the lower fat skin , up to damage deep network until reach muscle bone or muscle (Okatiranti et al., 2013)

Decubitus is something diseases that need treatment noticed especially in the elderly with stroke because Lots from elderly with stroke who experienced decubitus ulcers and lead to death (Rudini, 2017) . Many losses were incurred especially in patients and at home sick. After known reason from decubitus ulcers This expected number sufferers pressure ulcers in the elderly stroke sufferers can reduced. Based on matter matter the so need reviewed more Far articles that discuss about causes and factors factors that cause pressure ulcers in the elderly with stroke (Agus et al., 2019).

## **METHODS**

Study This is study secondary various Literature A review containing analysis, criticism and constructive suggestions. from study previously to something topic discussion from something science certain. Research This containing about analysis researchers related with factor factor reason pressure ulcers in the elderly with stroke. The technique used is SPIDER technique. Author look for article customized with the desired keywords researched by the author namely "decubitus", "elderly " and "stroke".

## RESULT

Title , Year	Journal Source	Research Design	Population and Sample	Results
Case Study of Pressure Ulcer Risk Prevention in Elderly Stroke Patients with Bed Rest in the Family (2024)	Journal of Medical and Health Sciences, Muhammadiyah University of Yogyakarta	Case Study Approach	one elderly patient diagnosed with stroke in two visits	This research is in line with the author's goal in compiling <i>a literature review</i> to determine the factors that influence the occurrence of <i>pressure ulcers</i> in elderly people with stroke, namely modifiable factors such as hypertension, smoking, and physical activity. As well as the non-modifiable factor is age. reason <i>decubitus ulcers</i> in the elderly with stroke includes disturbing pressure circulation blood and impact to death cells, as well as the immobilization process .
Holistic Management of Elderly Patients with Stroke, Pressure Ulcers, and Hypercholesterolemia Through a Family Medicine Approach. (2020)	Journal of the Faculty of Medicine, University of Lampung	Case study approach	A 62 year old female patient who experienced a stroke	This research is in line with the author's aim in compiling <i>a literature review</i> , namely this research shows that an unhealthy lifestyle and patients' ignorance about the disease they are experiencing are factors in the occurrence of stroke accompanied by <i>pressure ulcers</i> .
Implementation of Mobilization in Decubitus Prevention with Mobilization Hours for Elderly Stroke Patients at Sragen District Hospital. (2023)	Thermometer: Scientific Journal of Health and Medical Sciences	Descriptive study approach	A patient in the Lavender ward at Dr. Soehadi Regional Hospital is over 60 years old and is experiencing bed rest and extremity weakness.	This research is in line with the author's aim in compiling <i>a literature review</i> , namely to explain how pressure ulcers occur in patients with immobilization, namely due to impaired blood circulation to the tissue which results in damage to skin integrity and mechanical stress on the tissue.

<p>Case Study of Decubitus Ulcers in Bed Rest Patients Treated at Antapura Hospital, Palu in 2018. (2019)</p>	<p>Medika Alkhairaat: Journal of Medical and Health Research</p>	<p>Descriptive qualitative research type with a case study approach</p>	<p>Bed rest patients with decubitus ulcers at Antapura Hospital, Palu</p>	<p>This research is in line with the author's objective in compiling a literature review, namely factors that influence pressure ulcers, including immobilization, patients with poor nutrition, as well as humidity factors and a history of pressure ulcers.</p>
<p>Implementation of the Lying Position in Critical Patients with Stroke to Reduce the Risk of Decubitus Ulcers in the Emergency Observation Room of Dr. Moewardi Regional Hospital, Surakarta.</p>	<p>IJOH: <i>Indonesian Journal of Public Health</i></p>	<p>Descriptive method research with a case study approach.</p>	<p>Stroke patients at risk of pressure ulcers in the observation room of Dr. Moewardi Regional Hospital, Surakarta.</p>	<p>This research is in line with the author's objective in compiling a literature review, namely that this research explains several factors that cause pressure ulcers, including age, as a result of the aging process in the form of a reduced ability of the elderly to feel pain, thus increasing the risk of pressure ulcers.</p>
<p>Quality of Care for the elderly: pressure injury risk as a marking condition. (2019)</p>	<p><i>Rev. Rene Journal</i></p>	<p>Descriptive method research</p>	<p>Elderly people who meet the inclusion criteria determined by the researcher.</p>	<p>This research is in line with the author's objective in compiling a literature review that the factors causing pressure ulcers in the elderly are caused by several things, including inadequate knowledge of the elderly themselves, inadequate hygiene care for the elderly, and inadequate hygiene of caregivers, lack of assistance from professional health units or inadequate home visits such as homecare. The strategies or technologies used in handling pressure ulcer prevention are also outdated, then consultations between health workers and elderly patients are sporadic and often carried out only by caregivers or families without the presence of elderly patients.</p>

<p>Amputation-free Home Management of Infected Lower Extremity Pressure Ulcer through Shared Decision-making: Enhancing the Quality of Life and Highlighting Societal Significance in Home Care . (2024)</p>	<p><i>Internal Medicine</i></p>	<p><i>Case study</i></p>	<p>Elderly 75 years old.</p>	<p>This research aligns with the author's goal in writing a <i>literature review</i>, which is to explain that patients with pressure ulcers can be caused by complications in previous wounds because the bandage on the amputation wound worsens into a bedsore or pressure ulcer. Although Already get maintenance intensive start, erosion in a way gradually become necrosis that indicates the presence of osteomyelitis .</p>
<p><i>Nursing care for older patients with pressure ulcers: A qualitative study.</i> (2020)</p>	<p><i>Nursing Open</i></p>	<p>Qualitative descriptive</p>	<p>Nurse from ward geriatrics</p>	<p>This research is in line with the author's goal in writing a <i>literature review</i>, namely explain that reason pressure ulcers in the elderly covering age , decreased mobility , multimorbidity , and poor nutritional status Then in aspect practice nursing it was also found that lack of source Power nurses in the ward , limitations time Because burden administrative, as well as No existence culture communication about wound press .</p>
<p>Prevention and Management Decubitus Ulcers in Geriatrics . (2019)</p>	<p>Muhammadiyah University of Surakarta</p>	<p>Descriptive</p>	<p>Elderly sufferers decubitus.</p>	<p>Study This show that factor occurrence ulcer decubitus is one of the stretching skin like the current movement slide to below in patients who are in a semi-Fowler's position. In research ii is also explained Who only people at risk experience decubitus, like a person who is not can moving for example paralyzed, then people who do n't can feel pain , and people who are deficient nutrition . Factors risk the main thing that becomes reason decubitus is also described in research This includes, among other things, mobility and activity, then decline perception sensory and humidity skin .</p>

<p><i>Toward a definition of unpreventable pressure ulcers in super elderly sampling among Japanese patients at the end of life : a preliminary study .(2023)</i></p>	<p><i>Kanazawa University</i></p>	<p><i>Case study</i></p>	<p>Elderly people who experience decubitus ulcers</p>	<p>Study This show that reason pressure ulcers in the elderly caused by Because occurrence wetness or excessive moisture on the skin sufferers and causes peripheral edema .</p>
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## DISCUSSION

One of the dominant factors contributing to pressure ulcers in stroke patients is immobilization. After a stroke, patients often experience hemiparesis, hemiplegia, or decreased consciousness, which makes them unable to change position independently. As a result, certain body parts such as the sacrum, buttocks, heels, and lower back are exposed to constant and prolonged pressure. A qualitative study by Lindhardt et al. (2020) revealed that nurses are aware of the importance of skin examination, but in practice, this is often hampered by time constraints and high workloads. A study at Sragen Regional Hospital also demonstrated that position rotation every 2 hours significantly reduced the risk of pressure ulcers, indicating that simple interventions such as bed position changes can have a significant impact on pressure ulcer prevention (Apriani & Noorratri, 2023) .

Stroke patients who are in a coma, or whose condition affects consciousness, pain perception, and communication, are a risk factor for pressure ulcers in the elderly. Stroke patients in a coma tend to be unable to move independently or change body position .

Patients in this condition are unable to move and remain in a fixed position for long periods, which can lead to pressure ulcers or pressure ulcers. (Agus et al., 2019; Sugiyama et al., 2024) . Elderly people who experience condition the is elderly with level dependence full of depth case This force they For total *bed rest* . This is what becomes reason main occurrence decubitus ulcers Because lack of change a fairly long position, namely range between 2 to 6 hours. Immobilization of the patient with stroke affecting prolonged pressure on the tissue soft on bothersome bone flow blood and supply oxygen, so that hypoxia and necrosis network not can avoided . Lack of mobilization carried out and thinning network buffer skin also worsens condition skin so that prone to For happen decubitus ulcers (Mubarrok et al., 2023) .

Another factor contributing to pressure ulcers in the elderly is tissue fragility. Physiological aging can result in decreased skin elasticity, weakened tissue vascularity, and reduced muscle mass. In this case, bones become more prominent and the skin becomes more susceptible to damage, even under light pressure (Mahmuda, 2019) . Reduced level collagen and elastin in the elderly resulting in a

reduction elasticity skin, thing this is also accompanied by with depletion epidermal and dermal tissue in the elderly. The skin also has bearings experience on bulge the bone called as network subcutaneous. In the elderly, the condition network subcutaneous experience atrophy and decline mass so that bone become more near with surface skin. As a result, the pressure from position lying down continuously will cause ischemia tissue and decubitus. Fragility network in the elderly This aggravated with existence microcirculation, condition This cause disturbance flow blood that goes to to fragile skin and subcutaneous tissue. Condition the cause occurrence ischemia , death network and finally cause decubitus ulcers (Yudianti, 2020) .

Elderly with stroke prone experience weaknesses in the system nerves so that also has an impact on the system digestive system digestion in patients elderly especially, easy disturbed moreover due to impact psychological consequence disease experienced by the patient elderly with condition the tend experience decline lust Eat until difficulty swallow consequence from decline function nerves consequence the stroke he suffered. One of them sign symptom the occurrence of stroke is *dysphagia*, thing This cause patient No Can Eat or drink in a way independent. Calories, protein, and fluids needed body will reduce with impact from the difficulty patient For eat and drink in a way independent. This cause occurrence hypoproteinemia and dehydration , conditions This will cause body lost ability For regenerate cells and maintain integrity network (Naomi et al., 2020) .

Insufficient protein intake or called with *hypoproteinemia* causes albumin to be produced by the liver become decreased which results in *hypoalbuminemia*. Serum albumin levels that are low of 3g/100 ml is conditions that indicate risk tall malnutrition matter This

relate with slow healing process wounds . (Alimansur & Santoso, 2019) . Decreased albumin resulting in a reduction pressure Plasma oncotics that cause fluid become more easy go out from vessels blood going to interstitial space so that arise edema network. Edema that occurs this is what causes obstruction flow blood and supply oxygen going to skin. Hypoxia network is conditions that will occur happen consequence from lack of supply oxygen to network skin that becomes beginning occurrence wound decubitus ulcers. Consequences from malnutrition and hypoxia in the tissues this is what results in dehydration mobile. Condition This affects the reduction of body fluid volume and electrolytes body, so that make things worse condition skin become dry as well as slow down the healing process wound. Dry and brittle skin This make sensitive skin will pressure and geek. Combination between edema , dehydration mobile as well as damage skin this is what will happen resulting in the emergence of wound decubitus ulcers (Susilowati I, 2018) .

Stroke patients at the age of carry on many have experienced urinary and fecal incontinence , which result in increasing moisture in the sacrum and buttocks area . Condition This is frequent things happen consequence decline function neurological after stroke attack . Use diaper adults also cause skin in certain areas experience humidity . Although diaper help prevent contamination from environment , use rare diapers replaced or used in a long time will cause excessive moisture . Maceration of the skin No can avoided If condition skin on the part the experience excessive moisture . Maceration make skin more fragile and thin and disappearance ability skin For protect network underneath . As a result , the network become more fragile and vulnerable against pressure trauma (Mahmuda, 2019) .

Based on reason or the factors mentioned above, such as immobility, impairment nutrition and so on, things it is also necessary known not only by the elderly only, but also necessary understood by the family and caregivers. In case this, the elderly and their caregivers tend not enough know regarding the process of occurrence illness experienced. Lack understanding to maintenance wounds also become reason certain related with decubitus. Lack of education cause patient No know about sign sign beginning occurrence wound decubitus ulcers, such as existence redness of the skin or pain in a certain area. Intervention become late Because detection beginning occurrence decubitus ulcers No known. In a number of case, family or caregiver the elderly also do not own good knowledge regarding sign symptom decubitus. The importance of education in know sign symptoms and treatment process wounds in cases decubitus ulcers No only in patients but also to caregivers and families is things that can prevent occurrence decubitus. Education that can given specifically to elderly and their caregivers is education about reason wound decubitus and the care process wound decubitus ulcers That alone. Nurse in matter this, plays a role important For educate patients, families and caregivers patient (Lindhardt et al., 2020; Meireles & Baldissera, 2019).

Patient elderly especially Woman is more individuals prone to caught decubitus ulcers compared to elderly man male. Decrease hormone estrogen post-menopause is one of the consequence vulnerability individual Woman caught decubitus. Deficiency Estrogen levels experienced by elderly post-menopausal women result in thinning of the epidermis layer, reduction fatty tissue as well decline collagen. This is resulting in a reduction activities gland sebaceous and sweat that causes skin become dry and elastic become more reduced. Hormones estrogen also plays a role to

emphasis excessive neutrophil recruitment as well as lower expression elastase enzyme or enzyme destroyer network. Healing process wound become hampered Because decline from hormone estrogen said. In condition this, skin become sensitive especially Because lack of supply hormone estrogen mentioned make skin more prone to caught wound consequence pressure and friction that results in injury decubitus ulcers (Zomer & Cooke, 2023).

Based on results review literature conducted, care elderly with a risk of stroke experience decubitus ulcers show significant difference between home and home services sick, deep in practice will influence incident decubitus ulcers. Elderly with stroke disease in particular patient with weakness extremities that require they be in place sleep, causing they longer in permanent state so that increase risk decubitus. Home care Sick provide various facility health like availability anti-decubitus mattress, supervision intensive from power health, up to procedure scheduled bed changes at least once every two hours (Agus et al., 2019). Different case in point with maintenance patient elderly at home, where patient comfort more awake as well as condition emotional more patients Good Because near with family and be in place usually He live in. Based on case studied by (Sugiyama et al., 2024) that patient with case decubitus ulcers heavy can overcome without existence amputation through involvement family and Joint Decisions. However, home care is highly dependent on the knowledge and education of the family and caregivers, the availability of tools, and support integrated medical. Therefore That can concluded that home care Sick even though If not balanced with consistent observation and support active family so prevention pressure ulcers in the elderly with stroke no will walk maximum. Good synergy between service medical at home Sick with maintenance based family at home become One important things For pressing

number incident pressure ulcers in the elderly who have had a stroke (Agus et al., 2019)

## CONCLUSION AND SUGGESTION

After identified and analyzed of 10 articles so obtained factor reason pressure ulcers in the elderly with the most strokes found is factor immobilization. From research This recommended For all over power health especially profession nursing to study more in related factor factor affecting pressure ulcers in the elderly with stroke.

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