

**THE IMPLEMENTATION OF ANKLE PUMPING EXERCISE TO REDUCE
LOWER LIMB EDEMA IN CHRONIC KIDNEY DISEASE PATIENTS AT
LVALETTE HOSPITAL**

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ABSTRACT

Foot edema is the abnormal accumulation of fluid in the interstitial space of the lower extremity tissues, characterized by swelling that may be either localized or systemic. A national multicenter study showed that patients with chronic kidney disease (CKD) and edema have a 1.8 times higher risk of cardiovascular deterioration compared to those without edema. Ankle Pumping Exercise (APE) aims to improve venous return and reduce fluid accumulation in the lower extremities. This study employed a case study design using a nursing care approach. The nursing intervention in the form of Ankle Pumping Exercise (APE) was carried out over three consecutive days, with a frequency of twice daily, each session lasting five minutes per leg. Assessment was conducted based on fluid balance parameters in accordance with the Indonesian Nursing Outcomes Classification (SLKI). Following the intervention, there was an observed improvement in fluid balance, indicated by increased urine output, improved mucosal moisture, a reduction in edema level from +3 to +2, better blood pressure, improved pulse strength and rate, and enhanced skin turgor. These findings demonstrate that APE is an effective non-pharmacological intervention in reducing the degree of edema in CKD patients. The implementation of ankle pumping exercise, when performed according to standard procedures, has proven effective in helping reduce lower limb edema in patients with chronic kidney disease through the activation of the muscle pump mechanism, which enhances venous return and interstitial fluid drainage.

Keywords: Chronic Kidney Disease, Lower Limb Edema, Ankle Pumping Exercise