

# The role of the nurse in the prevention of cardiosurgical wound infection

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Wound infection in cardiac surgery most affect the sternum and cause a prolongation of the patient's recovery, an increase in costs and the risk of morbidity. Despite numerous risk factors such as diabetes, obesity and duration of the operation, the nurse has a major role in preventing infection. An aseptic procedure of wound care can remove, reduce and prevent infection. By daily assessment of the wound the nurse monitors the degree of healing and notices the first signs of infection. Early identification can prevent further spread of the infection. In cardiac surgery wound on the sternum or extremities can most often have minimal or no secretion and require dry wound care using sterile gauze. However, modern waterproof dressings resistant to bacteria which are placed on the dry wounds, with their honeycomb-like appearance, allow constant monitoring on the wound and reduce the risk of incorrectly healing. In early postoperative days the nurse checks the wound every day and when she reached a satisfactory stage of healing, she can remove the gauze and leave the wound on oxygen which helps in quality of healing. Preparation of sterile equipment, area and nurse (hair, short nails, gown, mask, clean hands, and gloves) are the role of the nurse before treating the wound. A medical documentation and high-quality nursing anamnesis make it easier to identify patients which are in risk for infection. Studies are suggesting the importance of the role of a multidisciplinary team, but only with proper education of the nurse we can give to our patients the highest level of quality of wound care. Regular and proper dressings, ensuring favorable microclimatic conditions encouraging the patient to practice personal hygiene, proper handling of the place where the drains are placed and proper preoperative preparation of the patients skin can contribute to the prevention of the infection in cardiac surgery<sup>1,2</sup>.

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## LITERATURE

1. Kirmani BH, Mazhar K, Saleh HZ, Ward AN, Shaw M, Fabri BM, et al. External validity of the Society of Thoracic Surgeons risk stratification tool for deep sternal wound infection after cardiac surgery in a UK population. *Interact Cardiovasc Thorac Surg.* 2013 Sep;17(3):479-84. <https://doi.org/10.1093/icvts/ivt222>
2. Maksimov V. Zadaci medicinske sestre/tehničara u poslijeoperacijskoj rehabilitaciji kardiokirurškog bolesnika [diplomski rad]. Rijeka, Hrvatska: Fakultet zdravstvenih studija; 2022.