


# Perioperative nursing care in transcatheter aortic valve implantation procedures

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Transcatheter aortic valve implantation (TAVI) is a minimally invasive procedure designed to treat severe aortic stenosis in patients who are considered high-risk candidates for conventional surgical valve replacement. Over the last decade, TAVI has become a widely accepted and routine cardiologic intervention. The choice of anesthesia during TAVI is critical for patient safety and procedural success. Conscious sedation combined with local anesthesia is increasingly preferred over general anesthesia due to advantages such as shorter procedure times, faster patient recovery, and fewer anesthesia-related complications.

At the General Hospital Slavonski Brod, TAVI procedures have been performed since early 2025 using conscious sedation alongside local anesthesia. In this multidisciplinary setting, perioperative nurses play a pivotal role throughout all stages of care. Their responsibilities include patient preparation, continuous monitoring of vital signs during the procedure, maintaining aseptic techniques, and ensuring patient comfort. Postoperatively, nurses oversee recovery, pain management, infection prevention, and patient education. A key focus of nursing care during TAVI is maintaining hemodynamic stability. Nurses monitor cardiovascular parameters closely, recognizing and responding promptly to any signs of hemodynamic instability or other complications. Effective analgesia and anxiety management are also essential nursing tasks, aimed at improving patient experience and facilitating smooth procedural flow. Moreover, perioperative nurses act as crucial communicators within the multidisciplinary team, ensuring seamless collaboration between cardiologists, anesthesiologists, and other healthcare professionals. This teamwork contributes to rapid identification and management of potential complications, ultimately enhancing patient safety and clinical outcomes.<sup>1</sup>

This abstract highlights the vital nursing roles and responsibilities in the perioperative care of patients undergoing TAVI. Emphasizing patient safety, hemodynamic stability, pain control, and infection prevention, with perioperative nurses being key to the successful completion of the TAVI procedure.

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## LITERATURE

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