



INNOVATIONS IN POSTOPERATIVE CARE: THE USE OF DRAINS AND ANTISEPTICS TO PREVENT PURULENT INFECTIONS

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Postoperative purulent infections remain one of the main causes of complications in surgical practice. To prevent their development, proper postoperative care, including the use of various methods and means, is an important aspect. Drains and antiseptics are among the most effective and widely used technologies. Modern innovations in these areas have significantly increased the effectiveness of the prevention of purulent infections and improved the outcomes of surgical treatment.

Drains play a key role in preventing purulent infections after surgery. They ensure the removal of pathological fluids such as blood, lymph or exudate from the surgical wound, which minimizes the risk of infection. Modern drains have a number of advantages, including:

- Minimizing the risk of fluid stagnation in the wound, which prevents the development of infections.
- Reducing pressure in the wound area, which helps to normalize blood circulation and accelerate healing.
- Easy to install and replace. The use of innovative materials such as silicone and polyurethane makes drains softer, more durable and less traumatic for fabrics.

Modern drains are often equipped with pressure-controlled systems and built-in filters, which significantly reduces the risk of bacterial colonization and infection.

Antiseptics are an important element of infection prevention at all stages of postoperative care. In recent years, many innovative drugs have appeared that not only effectively destroy microorganisms, but also have long-lasting antimicrobial effects. Among the new products are:

- Antiseptic films. These are innovative coatings that are applied to the wound and have the ability not only to protect against external infections, but also to actively suppress the growth of pathogenic microorganisms. Such films





can remain on the wound for several days, which reduces the need for frequent dressing changes.

- Antiseptic gels and creams. These products provide a long-lasting antiseptic effect, creating a protective film on the wound surface, which prevents the penetration of microbes and accelerates healing. Such drugs can be used both during surgery and in the postoperative period.

- Nanotechnology. The use of nanoparticles of silver, copper and other antimicrobial materials makes it possible to create more effective and safe means for the treatment of postoperative wounds. These drugs act at the cellular level, destroying microorganisms and preventing the development of infection.

Innovative care methods include the synergistic use of drains and antiseptics. For example, the use of antiseptic gels in combination with drains helps not only to drain excess fluid from the wound, but also significantly reduces the likelihood of infection, creating additional protection against bacteria.

The combination of these technologies makes it possible to more effectively control infection risks, speed up the healing process and increase the overall comfort of the patient during the postoperative period.

Innovative methods of postoperative care, including modern drains and antiseptics, provide a number of advantages:

- Reducing the frequency of postoperative infections. Modern antiseptics and drains significantly reduce the likelihood of wound infection.

- Reduction of the period of hospitalization. The effective use of new technologies contributes to a faster recovery of the patient and reduces the need for long-term follow-up in the hospital.

- Improving the patient's quality of life. Less pain, less chance of complications, and faster wound healing contribute to improving the patient's overall well-being.

Conclusion: Innovations in postoperative care, such as the use of modern drains and antiseptics, significantly increase the effectiveness of the prevention of purulent infections. Combining these methods, taking into account the latest developments, allows not only to reduce the risk of complications, but also to speed up the patient's recovery after surgery. The introduction of these technologies into clinical practice makes treatment safer and more effective, improving the results of surgical interventions and the quality of life of patients.