## Mupirocin

Mupirocin is an antibiotic medication primarily used to treat bacterial skin infections. Here are some key points about mupirocin:

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Type: It's a topical antibiotic, meaning it's applied directly to the skin. Uses: Commonly prescribed for:

Impetigo Folliculitis Small wounds or cuts at risk of infection Nasal decolonization of methicillinresistant Staphylococcus aureus (MRSA)

Brand names: Bactroban, Centany Mechanism of action: Mupirocin works by inhibiting bacterial protein synthesis, thereby stopping bacterial growth. Effectiveness: It's particularly effective against gram-positive bacteria, including Staphylococcus aureus and Streptococcus pyogenes. Application: Usually applied 2-3 times daily for 5-10 days, depending on the condition being treated. Side effects: Generally mild and may include burning, stinging, or irritation at the application site. Precautions: Should not be used for extended periods to avoid developing antibiotic resistance.

Would you like more information on any specific aspect of mupirocin, such as its clinical uses or potential side effects?

A guideline panel reviewed the impact of decolonization, targeted perioperative antibiotic prophylaxis (PAP), and combined interventions (e.g., decolonization and targeted PAP) on the risk of surgical site infections (SSIs) and other outcomes in multidrug-resistant Gram-positive bacteria (MDR-GPB) carriers, according to the type of bacteria and type of surgery.

They recommend screening for Staphylococcus aureus (SA) before high-risk operations, such as cardiothoracic and orthopedic surgery. Decolonization with intranasal mupirocin with or without chlorhexidine bathing is recommended in patients colonized with SA before cardiothoracic and orthopedic surgery and suggested in other surgeries. Addition of vancomycin to standard prophylaxis is suggested for MRSA carriers in cardiothoracic surgery, orthopedic surgery, and neurosurgery. Combined interventions (e.g., decolonization and targeted prophylaxis) are suggested in MRSA carriers undergoing cardiothoracic and orthopedic surgery. No recommendation could be made regarding screening, decolonization, and targeted prophylaxis for vancomycin-resistant enterococci (VRE), due to the lack of data.

No evidence was retrieved for methicillin-resistant coagulase-negative staphylococci (MR-CoNS) and pan-drug-resistant (PDR)-GPB. Careful consideration of the laboratory workload and involvement of antimicrobial stewardship as well as infection control teams are warranted before implementing screening procedures or performing changes in PAP policy. Future research should focus on novel decolonizing techniques, on the monitoring of resistance to decolonizing agents and PAP regimens, and on standardized combined interventions in high-quality studies <sup>1)</sup>

## 1)

Righi E, Mutters NT, Guirao X, Dolores Del Toro M, Eckmann C, Friedrich AW, Giannella M, Presterl E, Christaki E, Cross ELA, Visentin A, Sganga G, Tsioutis C, Tacconelli E, Kluytmans J. ESCMID/EUCIC clinical guidelines on preoperative decolonization and targeted prophylaxis in patients colonized by multidrug-resistant Gram-positive bacteria before surgery. Clin Microbiol Infect. 2024 Aug 16:S1198-743X(24)00341-0. doi: 10.1016/j.cmi.2024.07.012. Epub ahead of print. PMID: 39154859.

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