Decolonization

Decolonization in the medical context refers to the process of removing or reducing the presence of potentially harmful bacteria from a person's body, typically from areas like the skin or nasal passages. This is often done to prevent infections or reduce the risk of spreading harmful bacteria. Here are key points about decolonization:

Purpose:

Reduce risk of infection in patients Prevent transmission of bacteria to others Prepare patients for medical procedures

Common target organisms:

Methicillin-resistant Staphylococcus aureus (MRSA) Vancomycin-resistant Enterococci (VRE) Carbapenem-resistant Enterobacteriaceae (CRE)

Common sites for decolonization:

Nasal passages Skin (especially in high-risk areas like the groin and axilla) Throat Digestive tract

Methods of decolonization:

Topical antibiotics (e.g., mupirocin for nasal decolonization) Antiseptic body washes (e.g., chlorhexidine) Oral antibiotics (in some cases) Specialized mouthwashes

Settings where decolonization is often used:

Hospitals, especially intensive care units Long-term care facilities Pre-surgical preparation

Challenges:

Bacterial resistance to decolonization agents Recolonization after treatment Compliance with multistep protocols

Effectiveness:

Can significantly reduce infection rates in healthcare settings May need to be repeated periodically in some cases

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 ¹⁾

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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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