**XF-73 Nasal Literature Review**

**Period: 24/09/2024 – 24/10/2024**

[Scientific Highlights 1](#_Toc163992243)

[SA Decolonisation 1](#_Toc163992244)

[SA / MRSA Colonisation / Infection 1](#_Toc163992245)

[Guidelines / Prevention Practice 1](#_Toc163992246)

[Breast Surgery 1](#_Toc163992247)

[Mupirocin resistance 2](#_Toc163992248)

[Competitors 2](#_Toc163992249)

Scientific Highlights

1. Comparison of the Efficacy of Povidone-Iodine with Mupirocin in Decolo-nizing Staphylococcus aureus from the Nasal Cavity of Healthcare Work-ers: A Single-Blinded Randomized Controlled Trial.

SA Decolonisation

1. Predictive values of methicillin-resistant Staphylococcus aureus nasal swabs for pneumonia in burn ICU patients.
2. Radiological examination of greater palatine canal medial wall dehiscence.
3. Colonisation by multidrug-resistant organisms in health workers in primary care: narrow spectrum oral antimicrobials are a risk factor.
4. Rapid de-escalation of anti-MRSA therapy guided by S. aureus nares screening for patients with pneumonia: protocol of a randomized controlled trial (SNAP study).
5. The transmission risk of multidrug-resistant organisms between hospital patients and their pets - a case-control study, Germany, 2019 to 2022.
6. Mupirocin Ointment Effect on Polyposis Recurrence After Sinus Surgery.
7. "One Health" Perspective on Prevalence of ESKAPE Pathogens in Africa: A Systematic Review and Meta-Analysis.
8. MRSA nasal screening predictive values assessment in patients with osteomyelitis.
9. Prevalence of the cefazolin inoculum effect (CzIE) in nasal colonizing methicillin-susceptible Staphylococcus aureus in patients from intensive care units in Colombia and use of a modified rapid nitrocefin test for detection.
10. Role of Xpert PCR kit in assessing MRSA colonization in medical and surgical units of a tertiary care teaching hospital.
11. Spine surgical site infection outcome with preoperative application of a pre-saturated 10% povidone-iodine nasal decolonization product in a 32-bed surgical hospital.
12. Sinonasal Squamous Cell Carcinoma Mimicking a Brain Abscess: Report of a Unique Case.
13. Infective endocarditis due to nasal septal perforation during home oxygen therapy.
14. Case Report: "Navigating the Narrow Path: Unveiling a Nasal Septal Abscess in a Neonate".
15. Nasal microbionts differentially colonize and elicit cytokines in human nasal epithelial organoids.
16. Staphylococcus aureus Phenol-Soluble Modulins Mediate Interspecies Competition with Upper Respiratory Commensal Bacteria.
17. Unmasking Nasal Septal Hematoma/Abscess: A Systematic Review and Meta-analysis.
18. Exeporfinium chloride (XF-73) nasal gel significantly reduces Staphylococcus aureus nasal carriage in cardiac surgery patients throughout surgery and the early recovery period: results from a randomized placebo-controlled Phase 2 study.
19. Anti-inflammatory effects in LPS-induced macrophages and antibiofilm activity of the mannose-rich exopolysaccharide produced by Bacillus licheniformis B3-15.
20. Impact of CCR5Δ32 on the risk of infection, Staphylococcus aureus carriage, and plasma concentrations of chemokines in Danish blood donors.
21. Effects of Clausena lansium leaves volatile oil emulsion against Staphylococcus aureus in mice via autophagy modulation.
22. The Staphylococcus aureus-antagonizing human nasal commensal Staphylococcus lugdunensis depends on siderophore piracy.

SA / MRSA Colonisation / Infection

1. Essential Oils of The Leaves of Syzygium hemilamprum (F. Muell.) Craven & Biffin.: Chemical Analysis, Antimicrobial, Mosquito Larvicidal, ADMET, and Molecular Docking Studies.
2. Clinical Characteristics and Treatment Outcomes of Pediatric Bacterial Skin and Soft Tissue Infections in Central Vietnam: A Prospective Study.
3. Bacterial infections and outcomes of inpatients with COVID-19 in the intensive care unit during the delta-dominant phase: the worst wave of pandemic in Iran.
4. MRI Findings of Acute on Chronic Osteomyelitis of Tibia in a 12-Year-Old Child.
5. Global Antimicrobial Susceptibility Patterns of Staphylococcus aureus in Atopic Dermatitis: A Systematic Review and Meta-Analysis.
6. Antimicrobial Susceptibility Profile of Methicillin-Resistant Staphylococcus Aureus Isolated from Clinical Samples at Bac Ninh Provincial General Hospital, Vietnam.
7. Enhancing Dental Alginate with Syzygium aromaticum, Zingiber officinale and Green Silver Nanoparticles: A Nature-Enhanced Approach for Superior Infection Control.
8. Methicillin-resistant Staphylococcus aureus prevalence in food-producing animals and food products in Saudi Arabia: A review.
9. High mortality rate and restricted mobility in above knee amputation following periprosthetic joint infection after total knee arthroplasty: A systematic review.
10. Bacterial Profile, Susceptibility Patterns, and Factors Associated with Culture-Positive Sputum Among HIV Patients Presenting with a Cough in Northern Uganda.
11. Oral Staphylococcus Species and MRSA Strains in Patients with Orofacial Clefts Undergoing Surgical Rehabilitation Diagnosed by MALDI-TOF MS.
12. Evaluation of 16S-Based Metagenomic NGS as Diagnostic Tool in Different Types of Culture-Negative Infections.
13. Mapping Staphylococcus aureus at Early and Late Stages of Infection in a Clinically Representative Hip Prosthetic Joint Infection Rat Model.
14. Impact of Central Line-Associated Bloodstream Infections on Mortality and Hospital Stay in Adult Patients at a Tertiary Care Institution in Cali, Colombia, 2015-2018.
15. ST105 Lineage of MRSA: An Emerging Implication for Bloodstream Infection in the American and European Continents.
16. The Role of Autologous Platelet Concentrates as a Local Antibiotic Delivery System: A Systematic Scoping Review.
17. Phenotypic Variation in Staphylococcus aureus during Colonisation Involves Antibiotic-Tolerant Cell Types.
18. Real-World Clinical Characteristics and Outcomes with Daptomycin Use in Pediatric Patients: A Retrospective Case Series.
19. Microbiological Profile of Instrumented Spinal Infections: 10-Year Study at a French Spine Center.
20. Hand and environmental hygiene: respective roles for MRSA, multi-resistant gram negatives, Clostridioides difficile, and Candida spp.
21. Standardized treatment of infection after anterior cruciate ligament reconstruction.
22. Clinical, demographic characteristics and antimicrobial resistance profile of Staphylococcus aureus isolated in clinical samples from pediatric patients in a tertiary hospital in Rio de Janeiro: 7-year longitudinal study.
23. Preventing bacterial adhesion to skin by altering their physicochemical cell surface properties specifically.
24. Staphylococcus aureus infection disparities among Hispanics and non-Hispanics in Yuma, Arizona.
25. Nonabsorbable Barbed Sutures for Diastasis Recti. A Useful Device with Unexpected Risk: Two Case Reports.
26. Combining Multiple Spectroscopic Techniques to Reveal the Effects of Staphylococcus aureus Infection on Human Bone Tissues.
27. Genome-wide comparative analysis of CC1 Staphylococcus aureus between colonization and infection.
28. Vanillic Acid-based Pro-coagulant Hemostatic Shape Memory Polymer Foams with Antimicrobial Properties against Drug-resistant Bacteria.
29. Associations between respiratory pathogens and lung function in primary ciliary dyskinesia: cross-sectional analysis from the PROVALF-PCD cohort.
30. Case 3: Shock after Gluteal Abscess Incision and Drainage in a 15-month-old Girl.
31. Brodie's abscess of the calcaneus due to Serratia marcescens.
32. Therapeutic Indices of Topical Antiseptics in Wound Care: A Systematic Review.
33. Intraspecific cooperation allows the survival of Staphylococcus aureus staff: a novel strategy for disease relapse.
34. A Consensus on Staphylococcus aureus Exacerbated Atopic Dermatitis and the Need for a Novel Treatment.
35. Occurrence, genetic diversity, and antimicrobial resistance of methicillin-resistant Staphylococcus spp. in hospitalized and non-hospitalized cats in Brazil.
36. Efficacy and safety of vancomycin for local application in the prevention of surgical site infection after joint arthroplasty: a systematic review and meta-analysis.
37. Hand eczema and changes in the skin microbiome after 2 weeks of topical corticosteroid treatment.
38. Comparative Evaluation of the Antibiotic Resistance Profile of Staphylococcus aureus Isolated From Breeders and Livestock.
39. Persistent bloodstream infection in children: examining the role for repeat blood cultures.
40. Clinical impact of the use of chronic suppressive antibiotics against recurrent ventricular assist device infections.
41. Deep infections after low-velocity ballistic tibia fractures are frequently polymicrobial and recalcitrant.
42. Parasitological prevalence of scabies and secondary bacterial infections among scabies suspected patients at Borumeda General Hospital, Northeast Ethiopia.
43. Biofilm infections of endobronchial valves in COPD patients after endoscopic lung volume reduction: a pilot study with FISHseq.
44. Parotid abscess causing facial palsy in a child: A case report.
45. Deciphering microbiome and fungi-bacteria interactions in chronic wound infections using metagenomic sequencing.
46. Disinfectants efficacy in reducing pathogens related to health-care infection associated in universities hospitals of Gorgan, North of Iran.
47. Streptococcus pneumoniae Spinal Epidural Abscess in an Immunocompetent Patient.
48. Increase in PVC-BSI during the second COVID-19 pandemic year: analysis of catheter and patient characteristics.
49. Acute Hematogenous Osteomyelitis in Pediatric Patients.
50. Healthcare-associated infections in Japanese hospitals: results from a large-scale multicenter point-prevalence survey in Aichi, 2020.
51. The influence of maggot debridement therapy on the bacterial flora of hard-to-heal wounds.
52. Analysis of genetic requirements and nutrient availability for Staphylococcus aureus growth in cystic fibrosis sputum.
53. Multidrug-resistant organism bloodstream infections in solid organ transplant recipients and impact on mortality: a systematic review.
54. Exploring diflunisal as a synergistic agent against Staphylococcus aureus biofilm formation.
55. Infection following mini-open rotator cuff repair: a single surgeon experience.
56. Staphylococcus aureus colonizing the skin microbiota of adults with severe atopic dermatitis exhibits genomic diversity and convergence in biofilm traits.
57. Males are at Higher Risk for Colonizations and Infections with Multidrug Resistant Organisms than Females.
58. Aortic Homografts in Surgical Management of Prosthetic Valve Endocarditis: A Case Series from Greece.
59. Staphylococcus epidermidis bacteremia after small bowel enteroscopy.
60. Risk of invasive MDRO infection in MDRO-colonized patients.
61. Evaluation of Surgical Site Infection Rates in Traumatic Surgical Fixation and Arthroplasty Performed in Laminar Flow Versus Non-laminar Flow Theatres During the COVID Pandemic.
62. Methicillin resistant staphylococcus aureus infection in neonates- a major concern and a call for action.
63. Homograft implant for prosthetic aortic endocarditis with paravalvular abscess in a patient with persistent left superior vena cava.
64. Berberine Inhibits the Inflammatory Response Induced by Staphylococcus aureus Isolated from Atopic Eczema Patients via the TNF-α/Inflammation/RAGE Pathways.
65. A Rapidly Deteriorating Case of Bivalvular Endocarditis in a Hemodialysis Patient: A Case Report.
66. Current Trends in Clinico-Bacteriological Profile and Antimicrobial Susceptibility Pattern in Active Chronic Suppurative Otitis Media (Safe and Unsafe) at a Tertiary Care Center in Uttarakhand: An Observational Study.
67. Global practice variation of suppressive antimicrobial treatment for prosthetic joint infections: A cross-sectional survey study.
68. 2'3'-cGAMP interactome identifies 2'3'-cGAMP/Rab18/FosB signaling in cell migration control independent of innate immunity.
69. In silico testing to identify compounds that inhibit ClfA and ClfB binding to the host for the formulation of future drugs against Staphylococcus aureus colonization and infection.
70. Recurrent colonization with methicillin-susceptible Staphylococcus aureus after successful decolonization in a neonatal intensive care unit.
71. d-[5-(11)C]-Glutamine Positron Emission Tomography Imaging for Diagnosis and Therapeutic Monitoring of Orthopedic Implant Infections.
72. Single-cell profiling reveals a conserved role for hypoxia-inducible factor signaling during human craniotomy infection.
73. A systematic review of pelvic infective osteomyelitis in children: current state of evidence.
74. Taurolidine irrigation reduces relapse and recurrence of hemodialysis access infection.
75. Encapsulation nanoarchitectonics of glabridin with sophorolipid micelles for addressing biofilm hazards via extracellular polymeric substance permeation and srtA gene suppression.
76. Adsorption of Staphylococcus aureus biofilm associated compounds on silica probed with molecular dynamics simulations.
77. Evaluation of the Feasibility of Using Commercial Wound Coatings as a Carrier Matrix for Bacteriophages.
78. Occurrence and characterization of ESKAPE organisms on the hands of veterinary students before patient contact at a veterinary academic hospital, South Africa.
79. Tissue niche influences immune and metabolic profiles to Staphylococcus aureus biofilm infection.
80. Bloodstream infections: mechanisms of pathogenesis and opportunities for intervention.
81. Development of bacteriostatic central venous port using photobiomodulation: a comparative in vitro study.
82. In Vitro Assessment of Gallium Nanoalloy Hydrogels for Antimicrobial and Wound Healing Applications.
83. Preclinical Positron Emission Tomography (PET) of Prosthetic Joint Infection Using a Nitro-Prodrug of 2-[(18)F]F-p-Aminobenzoic Acid ([(18)F]F-PABA).
84. Surveillance of surgical site infections in orthopedic prosthetic surgery: a tool for identifying risk factors and improving clinical practice.
85. Persistent Fever in Bilateral Septic Cavernous Sinus Thrombosis: A Case Report.
86. Hidden Threat: Unveiling the Dangers of Cervical Epidural Abscess.
87. Time-Dependent Electrical Active and Ultrasound-Responsive Calcium Titanate Implant Coating with Immunomodulation, Osteogenesis, and Customized Antibacterial Activity.
88. [Analysis of the changes of bacterial spectrum and drug resistance in sputum culture of ICU children in a hospital of pediatric in Jiangsu Province from 2017 to 2022].
89. Preoperative, Intraoperative & Postoperative Concepts to Prevent Infection for Unicompartmental Knee Arthroplasty.
90. Enhancing antibacterial performance and stability of implant materials through surface modification with polydopamine/silver nanoparticles.
91. Features Associated With the Presence of Specific Bacterial Strains in Pediatric Tracheostomy.
92. Antibacterial activity of green synthesized copper oxide nanoparticles against multidrug-resistant bacteria.

Guidelines / Prevention Practice

1. Systematic review on oral antibacterial relay therapy for acute staphylococcal prosthetic joint infections treated with debridement, antibiotics and implant retention (DAIR).

Breast Surgery

1. Clinical Experience in the Management of the Polyacrylamide Hydrogel (PAAG) Associated Complications Including Four Breast Cancer Cases: A Retrospective Study of 135 Cases.
2. Magnetic lymphatic tracing for omission of sentinel lymph node biopsies in mastectomy patients: a community cancer center experience.
3. Evaluation of prognostic efficacy of liver immune status index in predicting postoperative outcomes in hepatocellular carcinoma patients: A multi-institutional retrospective study.
4. Complications in Prolonged Intraoperative Ischemia Time in Free Flap Breast Reconstruction: A Systematic Review and Meta-Analysis.
5. COVID-19 and postoperative complications after plastic surgery procedures: More than just hypercoagulability.
6. Rare Breast Emergency: A Case of Necrotizing Fasciitis of the Breast in a Lactating Patient.
7. A systematic review on the techniques, long-term outcomes, and complications of partial breast irradiation after breast-conserving surgery for early-stage breast cancer.
8. Postoperative pancytopenia in a patient with giant parathyroid adenoma and brown tumor: a case report.
9. Efficacy of Closed-Incision Negative Pressure Wound Therapy in Reducing Postoperative Complications in Breast Reconstruction After Radiotherapy: A Propensity Score Analysis.
10. Impact of Neoadjuvant Chemotherapy and Preoperative Irradiation on Early Complications in Direct-to-Implant Breast Reconstruction.
11. Advancing Reduction Mammaplasty Surgery: Advancements and Outcomes with Tumescent Local Anaesthesia.
12. Development and validation of a model for early survival prediction following liver transplantation based on donor and recipient characteristics.
13. The Effects of the COVID-19 Mask Mandate on Complication Rates in Postmastectomy Tissue Expansion.
14. Nature and Determinants of Fear of Cancer Recurrence After Endoscopic Submucosal Dissection for Early Gastric Cancer: A Cross-Sectional Study.
15. The waist-to-hip ratio is a superior predictor of complications in breast reconstruction: A prospective pilot study.
16. Evaluation of preoperative antibiotic prophylaxis in clean-wound general surgery procedures: a propensity score-matched cohort study at a regional hospital.
17. Gas gangrene with Clostridium septicum in a neutropenic patient.
18. Intraoperative Hypothermia Versus Normothermia in Breast Reconstruction: A Systematic Review and Meta-Analysis.
19. Meta analysis of 2059 patients assessing early discharge after DIEP flap breast reconstruction: Comprehensive outcomes before post-operative day 5.
20. Current approaches to diagnosing and treating idiopathic granulomatous mastitis: A summary from in-depth clinician interviews.
21. Impact of infectious complications after gastrectomy on non‑gastric cancer‑related deaths.
22. Surgical complications after immediate implant-based breast reconstruction for breast cancer in women over 65 years.
23. Immediate prepectoral versus submuscular breast reconstruction in nipple-sparing mastectomy: a retrospective cohort analysis.
24. The impact of topical tranexamic acid on drain duration and seroma volume in axillary lymph node dissection for breast cancer: A randomized controlled trial.
25. Endoscopic Prophylactic Nipple-Sparing Mastectomy: first French survey of 10 patients.
26. Staged Nipple Delay Procedure Expands Candidacy for Nipple-Sparing Mastectomy.
27. Clinical Impact of Obesity on Postoperative Outcomes of Patients With Thyroid Cancer Undergoing Thyroidectomy: A 5-Year Retrospective Analysis From the US National Inpatient Sample.
28. Seasonal Impact on Wound Healing and Surgical Site Infections after Reduction Mammoplasty.
29. Can combined paravertebral and erector spinae block provide perioperative analgesia for mastectomy with LD flap reconstruction surgery? An observational study.
30. Changes in breast cancer incidence and surgical treatment in Baden-Württemberg (Germany) during the COVID-19 pandemic.
31. Advantages and Disadvantages of Breast Augmentation: Surgical Techniques, Outcomes and Future Directions.
32. The unusual location of primary hydatid cyst: A case series study.
33. Immediate Prepectoral Breast Reconstruction Without Acellular Dermal Matrices: Preliminary Results.

Mupirocin resistance

1. Microbiological Quality and Antibiotic Resistance of Relevant Bacteria from Horsemeat.
2. Antimicrobial effects of a multimodal wound matrix against methicillin-resistant Staphylococcus aureus and Pseudomonas aeruginosa in an in vitro and an in vivo porcine wound model.
3. Preliminary in vivo investigation of the mesenchymal stromal cell secretome as a novel treatment for methicillin-resistant Staphylococcus aureus in equine skin wounds.
4. Molecular diversity in fusidic acid-resistant Methicillin Susceptible Staphylococcus aureus.

Competitors

1. Cutaneous diphtheria from 2018 to 2022: an observational, retrospective study of epidemiological, microbiological, clinical, and therapeutic characteristics in metropolitan France.
2. In Vivo Effect of Halicin on Methicillin-Resistant Staphylococcus aureus-Infected Caenorhabditis elegans and Its Clinical Potential.
3. Sono-Triggered Biomimetically Nanoantibiotics Mediate Precise Sequential Therapy of MRSA-Induced Lung Infection.
4. Three-dimensional printed polyelectrolyte construct containing mupirocin-loaded quaternized chitosan nanoparticles for skin repair.
5. Enhanced Staphylococcus aureus protection by uncoupling of the α-toxin-ADAM10 interaction during murine neonatal vaccination.
6. Trimodal skin health programme for childhood impetigo control in remote Western Australia (SToP): a cluster randomised, stepped-wedge trial.
7. Etiology of septic arthritis in children of Qatar.