**XF-73 Nasal Literature Review**

**Period: 24/04/2025 – 24/05/2025**

[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. In-Vitro Determination of Minimum Inhibitory Concentration (MIC) and Contact Time of Povidone-Iodine against Staphylococcus aureus and Klebsiella aerogenes Using Micro Suspension Test, Colorimetric Resazurin Microplate Assay, and Dey Engley Neutralizer Assay.
2. Impact of Preoperative Povidone Nasal Swab on the Incidence of Surgical Site Infection: An Observational Study.
3. Phenotypic and genotypic characterization of MRSA isolated from Health care workers in tertiary care hospital.
4. Surveillance of nasal Staphylococcus aureus in patients undergoing breast surgery.

SA Decolonisation

1. Nasal Carriage of enterotoxigenic Staphylococcus aureus and microRNA 146a expression profile in rheumatoid arthritis patients.
2. Microbiological profile and immunological changes in pediatric chronic adenotonsillar hypertrophy before and after adenotonsillectomy.
3. Experience in Implementing Colonization Screening in a Multidisciplinary County Clinical Hospital in Romania.
4. Staphylococcus aureus in Rwandan dogs predominantly representing human-associated lineages.
5. The effect of diluted 1% baby shampoo on biofilm reduction in chronic rhinosinusitis with nasal polyposis.
6. The AusAB non-ribosomal peptide synthetase of Staphylococcus aureus preferentially generates phevalin in host-mimicking media.
7. Zoonotic relevance of multidrug-resistant bacteria in parrots with respiratory illness.
8. Identification of Novel Staphylococcus aureus Core and Accessory Virulence Patterns in Chronic Rhinosinusitis.
9. Nasal Methicillin Resistant Staphylococcus Aureus Colonisation and the Incidence of Invasive Staphylococcal Infection in Patients Undergoing Hemodialysis.
10. Impact of Staphylococcus aureus colonization and skin abscesses on formation of human anti-αGal antibodies.
11. Targeted next-generation sequencing enhances precision and rapid detection in healthcare-associated infection Surveillance: Unveiling multidrug-resistant colonization in ICUs.
12. Risk factors for Clostridioides difficile infection caused by ribotype 027 strains in the Veterans Affairs Healthcare System: a matched case-control study.
13. Battling Influenza in Elderly Patients: A Case of Severe Influenza A With Complications in a High-Risk Patient.
14. Negative Nasal Methicillin-Resistant Staphylococcus aureus (MRSA) Polymerase Chain Reaction Rules Out Future MRSA Infections in Severely Injured Trauma Patients.
15. Evaluation of multidrug-resistant bacteria and their molecular mechanisms found in small animal veterinary practices in Portugal.
16. The Efficacy of Mupirocin Nasal Irrigations for Treatment of Refractory Chronic Rhinosinusitis After Endoscopic Sinus Surgery.
17. Recurrent Anterior Epistaxis in Children With Allergic Rhinitis and Non-Allergic Rhinitis: Clinical Features.

SA / MRSA Colonisation / Infection

1. Kinsenoside-Loaded Microneedle Accelerates Diabetic Wound Healing by Reprogramming Macrophage Metabolism via Inhibiting IRE1α/XBP1 Signaling Axis.
2. Synthesis and characterization of clove/gelatin coated silk sutures for surgical site infection and wound healing.
3. Sickle Cell Disease and Antimicrobial Resistance: A Systematic Review and Meta-Analysis.
4. Effective Management of a Skin and Soft Tissue Infection Caused by Community-Acquired MRSA Through Triple-Targeted Therapy Along with Aggressive Source Control: A Case Report.
5. Burden of multi-drug resistant bacterial isolates and its associated risk factors among UTI-confirmed geriatrics in Gondar town.
6. A promising multi-component, multi-functional, drug-releasing Cu-doped Fe(3)O(4)/bioactive glass/chitosan coating, applied on stainless steel substrate for biomedical applications.
7. The bad bug: early MRSA infections in children with CF are associated with worse respiratory outcomes.
8. Population and pan-genomic analyses of Staphylococcus pseudintermedius identify geographic distinctions in accessory gene content and novel loci associated with AMR.
9. Enhancing bedding hygiene in long-term care facilities: investigating the impact of multilevel antimicrobial polymers (MAP-1) on bacterial and MDRO reduction.
10. Prevalence of MRSA in Livestock, Including Cattle, Farm Animals, and Poultry, in Mainland China, Hong Kong Special Administrative Region, Sri Lanka, and Bangladesh: A Systematic Review and Meta-Analysis.
11. From Bench to Application: Evaluating the In Vitro and In Vivo Efficacy of a Polyhexamethylene Biguanide and Cross-Linked Hyaluronic Acid-Based Antiseptic Solution.
12. Outcomes of Staphylococcal Prosthetic Joint Infection After Hip Hemiarthroplasty: Single Center Retrospective Study.
13. Machine Learning Approach for Early Lactation Mastitis Diagnosis Using Total and Differential Somatic Cell Counts.
14. Antibiotic susceptibility patterns of bacterial uropathogens at a private tertiary hospital in Uganda: a retrospective study.
15. The burden of nosocomial superinfections in a retrospective cohort study of critically ill COVID-19 patients.
16. Exploratory analysis of long-term suppressive therapy with dalbavancin in ventricular assist device infections caused by Staphylococcus aureus.
17. Dermatologic presentations of hyper IgE syndrome in pediatric patients.
18. Exploring the impact of comorbidities and drug resistance on mortality in ICU-acquired bloodstream infections.
19. Secular trends in periprosthetic joint infections following primary hip and knee arthroplasties: A 15-year cohort study from the VINCat Program (2008-2022).
20. Bacterial profile, treatment outcomes, and determinants among adult patients with musculoskeletal infections admitted to Jimma Medical Center: A prospective observational study.
21. Targeting Microbial Biofilms and Promoting Wound Healing in MRSA-Infected Diabetic Rats using Postbiotics of Lactiplantibacillus plantarum.
22. Synergistic pathogenesis: exploring biofilms, efflux pumps and secretion systems in Acinetobacter baumannii and Staphylococcus aureus.
23. Conductive Antibacterial Silk Sutures for Combating Surgical Site Infections via Electrically Controlled Drug Release.
24. Giant Cyst of Dermis-Fat Graft in a Child with MRSA-Case Report.
25. Bloodstream infections with emphasis on Methicillin-resistant Staphylococcus aureus at the University of Gondar Comprehensive Specialized and Referral Hospital, Northwest Ethiopia.
26. Feasibility of applying Bacillus amyloliquefaciens-derived solid state fermentation products into the hatch cabinet environment as a method to mitigate the microbial bloom during the hatching phase.
27. Molecular Variation of Methicillin-resistant Staphylococcus haemolyticus Isolated from Patients in Ramadi City, Iraq.
28. Triple Valve Endocarditis and Multiorgan Failure: A Clinical Conundrum.
29. Detection of the mecA Gene and Its Association With Antimicrobial Resistance Among Coagulase-Negative Staphylococci Isolated From Clinical Samples in a Tertiary Care Hospital: A Cross-Sectional Study.
30. Prevalence and Outcome of Infections Caused by Staphylococcus aureus Strains Harboring the Panton-Valentine Leukocidin Gene.
31. [MSB-55] Surgical Treatment of Infective Endocarditis.
32. Chamber design and intensity-modulated ultraviolet-C LEDs for advanced pulsed photonic disinfection.
33. Tailoring Cell Behavior and Antibacterial Properties on Zirconia Biomaterials through Femtosecond Laser-Induced Micropatterns and Nanotopography.
34. The identity of implant materials governs the antimicrobial efficacy of SET-M33.
35. Early and late mortality in vertebral osteomyelitis: who dies within the first year after diagnosis.
36. Child Organ Offer Process (cOOPS): Understanding Infectious Risk Assessment and Mitigation Strategies.
37. A Cross-Sectional Study of Catheter-Related Bloodstream Infections in a Tertiary Care Hospital in India.
38. The Importance of the Detection of Staphylococcus aureus Strain Characteristics Associated With Perioperative Transmission of Antibiotic Resistance.
39. Investigating endophytic fungi of Calotropis procera for novel bioactive compounds: molecular docking and bioactivity insights.
40. Case report: Cervical suppurative lymphadenitis caused by burkholderia multivorans in a healthy child.
41. The effectiveness of arthroscopic irrigation and debridement in the management of septic arthritis following anterior cruciate ligament reconstruction: A Systematic Review and Meta-Analysis.
42. Surgical Site Infections Complicating Coronary Artery Bypass Graft Surgery in Australia: time trends in infection rates, surgical antimicrobial prophylaxis and pathogens using a comprehensive surveillance network, 2010-2023.
43. Improved humanized mouse model of Staphylococcus aureus infection.
44. Antimicrobial Stewardship Impact on the Treatment of Intra-abdominal Infections in the Surgical Intensive Care Unit.
45. [Features of treatment of acute postoperative endophthalmitis].
46. Antibiotic use patterns and factors associated with leukocyte decrease in COVID-19 patients with suspected secondary infections: A cross-sectional study in Indonesia.
47. Dual anti-inflammatory and antimicrobial effects of stingless bee propolis on second-degree burns.
48. A Rare Case of Sinus of Valsalva Aneurysm Rupture Resulting From Infective Endocarditis and Requiring Surgery.
49. Antibiotic Resistance and Surgical Site Infections in Free Flap Reconstruction for Head and Neck Cancer: A Retrospective Analysis From a Lower-Middle-Income Country.
50. Antimicrobial susceptibility at intensive care units in Sudan, antibiogram development.
51. Cytomorphological characteristics of the nasopharyngeal mucosa in children with acute respiratory infections.
52. Phage therapy: a promising approach for Staphylococcus aureus diabetic foot infections.
53. Povidone-Iodine and Hydrogen Peroxide Combination Improves the Anti-Biofilm Activity of the Individual Agents on Staphylococcus aureus.
54. Cannabidiol-loaded hydrogel contact lenses for on-demand pH regulation and enhanced corneal alkali burn repair.
55. Prevalence, microbiology, and antimicrobial susceptibility profile of bacterial skin and soft tissue infections in pediatric patients with malignancies at a referral teaching hospital in Shiraz, Iran.
56. An uncommon presentation of multiple spinal epidural abscesses: A case report.
57. Bacterial profile and antimicrobial susceptibility pattern of community and hospital-acquired urinary tract infections among UTI suspected geriatrics in Gondar town, Northwest Ethiopia.
58. A molecular comparative study of intestinal colonization with Staphylococcus aureus between pediatric inpatients and outpatients of different age groups.
59. Clinical and laboratory indicators predicting coagulase-negative staphylococci as a cause of bloodstream infection among children below five years of age admitted at a tertiary hospital in Dar es Salaam, Tanzania.
60. Characteristics and outcomes of patients with infective native aortic aneurysm or vascular graft and endograft infection.
61. Dynamic Networks of Methicillin-Resistant Staphylococcus aureus in Communities Drive Hospital Transmission.
62. Skin Staphylococcus aureus detection and relationship to atopic dermatitis outcomes using culture and metagenomic sequencing.
63. Clinical and Microbiology Predictors for Therapeutic Failure in Sternal Surgical Site Infections - A Retrospective Cohort Study.
64. Rifampicin in combination treatments for methicillin-resistant staphylococcal prosthetic joint infections: Claims database evaluation using a cohort of 52,588 hip arthroplasty patients.
65. Comparative effectiveness of a multimodal intervention package on surface cleaning and disinfection in Brazilian neonatal intensive care units.
66. Prediction of bloodstream infection using machine learning based primarily on biochemical data.
67. Skin mycobiome: Fungi drive colonization resistance in an already hostile environment.
68. Ventriculitis characteristics and outcomes (VELCRO): an international retrospective cohort study.

Guidelines / Prevention Practice

1. Central line-associated bloodstream infection rates in intensive care units of China's hospitals: a meta-analysis.
2. Sustainability and spread of best practices for peri-operative antimicrobial stewardship following discontinuation of mandatory public reporting: perceptions from the Society for Healthcare Epidemiology in America research network.
3. Prevention of Surgical Site Infection after Spine Operation with Care Bundle.

Breast Surgery

1. A nomogram for predicting early bacterial infection after liver transplantation: a retrospective study.
2. Omentum transplantation for malignant tumors: a narrative review of emerging techniques and clinical applications.
3. Elective cesarean section and bottle-feeding do not reduce infection of hepatitis B in infants of high viremic mothers: a retrospective study.
4. Clinical impact of closed-incision negative-pressure therapy in DIEP flap breast reconstruction's donor site.
5. Salvage of the Mastectomy Pocket in Infected Implant-Based Breast Reconstruction Using Negative-Pressure Wound Therapy with Instillation and Dwell: A Systematic Review and Meta-Analysis.
6. "Microsurgical breast reconstruction - A salvage option for failed implant-based breast reconstruction".
7. Impact of closed-incision negative pressure therapy in donor-site complications in DIEP flap breast reconstruction: Analysis of 705 patients and 1125 flaps.
8. Nipple-Sparing Mastectomy and Infection Risk after Immediate Breast Reconstruction.
9. Skin-Reducing Mastectomy and Direct-to-Implant Breast Reconstruction Without Mesh: A Single-Institute Experience.
10. Breast Reconstruction With Subpectoral, Air-Filled Tissue Expander Following Nipple-Sparing Mastectomy: A Safe Alternative to Saline-Filled Tissue Expanders.
11. Early Onset Red Breast Syndrome: The Incidence, Risk Factors, and Clinical Outcomes in Prepectoral Direct-to-Implant Breast Reconstruction.
12. Timing of surgery and 1-year postoperative outcomes in patients with breast cancer and preoperative COVID-19 history: A matched, longitudinal, ambidirectional cohort study.
13. Infection Risk and Patient-Reported Outcomes Across Complete Submuscular, Partial Submuscular, and Prepectoral Tissue Expander Placement.
14. Formulation-optimized oncolytic viruses: Advancing systemic delivery and immune amplification.
15. Artificial intelligence prediction model for readmission after DIEP flap breast reconstruction based on NSQIP data.
16. Sepsis 6 Years After Breast Augmentation With Aquafilling: A Case Report and Literature Review.
17. Utilizing Reverse Axillary Mapping in the Surgical Treatment of Axillary Hidradenitis Suppurativa: A Novel Approach.
18. Efficacy and Morbidity of Heparin Infusion in Salvaging Autologous Breast Reconstruction Free Flaps.
19. Thrombotic thrombocytopenic purpura following plastic surgery: A case report.
20. A Prospective Study to Evaluate the SPY-QP Software for Intraoperative Perfusion Assessment in Breast Reconstruction.
21. Quilting Sutures and Suction Drains in Preventing Postoperative Complications in Gynecomastia Surgery.
22. Breast cancer implant reconstructive surgery and radiotherapy: a retrospective analysis of medical records.
23. Complications and Burden of 2-Stage Tissue Expander to Implant-Based Reconstructive Surgery: A Single-Center Retrospective Study.
24. A Prospective Comparative Study of the Effectiveness of Flap Fixation by Suture Versus Conventional Closure in Reducing Seroma Formation After Modified Radical Mastectomy.
25. Managing Necrotizing Soft-Tissue Infection in Breast Cancer: A Case of Emergency Toilet Mastectomy.
26. Recognizing and Managing Breast Implant Complications: A Review for Healthcare Providers Who Treat Women Who Underwent Breast Implant-Based Surgery.
27. Comparison of Outcomes of Microsurgical Breast Reconstruction after Premastectomy and Postmastectomy Radiation Therapy.
28. Long-Term Shape and Volume Retention of Acellular Dermal Matrix in Oncoplastic Breast-Conserving Surgery: A 2-Year Retrospective Study.
29. SARS-CoV-2 Infection Risk and COVID-19 Prevalence and Mortality in Cancer Patients During the First Wave of COVID-19 Pandemic in a Virus Epicenter in Northern Italy.
30. Evaluation of Bupivacaine Injection Instillation Directly in the Rectus Sheath in LSCS Cases as an Effective Analgesia Method.
31. Outcomes and Risk Factors of Pyoderma Gangrenosum After Reduction Mammoplasty: A Systematic Review of the Literature and Case Report.
32. Dermatologic diseases of the breast, areola and nipple.
33. Real-world evidence of febrile neutropenia-related hospitalization on patients with perioperative chemotherapy for early breast cancer in Japan.

Mupirocin resistance

1. Emergence of ST3390: A non-pigmented HA-MRSA clone with enhanced virulence.
2. Therapeutic Efficacy of 2% Mupirocin in Managing Staphylococcus aureus and Streptococcus pyogenes Wound Infections.

Competitors

1. Butyrate-Producing Mixed Probiotics Alleviate MRSA-Induced Acute Lung Injury in Mice by Promoting M2 Macrophage Polarization.
2. Antigen-Dependent Adjuvanticity of Poly(lactic-co-glycolic acid)-polyethylene Glycol 25% Nanoparticles for Enhanced Vaccine Efficacy.
3. Epitope-Based Vaccines: The Next Generation of Promising Vaccines Against Bacterial Infection.
4. Fever exerts opposing effects on the binding affinities of two neutralizing monoclonal antibodies against Staphylococcal Enterotoxin B.
5. Design of a multi-epitope vaccine against Staphylococcus Aureus lukotoxin ED using in silico approaches.
6. Perception and management of Oestrus ovis human myiasis by physicians: Exploratory survey in an endemic area (Italy).
7. Recent Advances in Immunotherapeutic and Vaccine-Based Approaches for the Treatment of Drug-Resistant Bacterial Infections.
8. Beta-Lactam Antibiotics Promote Extracellular Vesicle Production of Staphylococcus aureus Through ROS-Mediated Lipid Metabolic Reprogramming.
9. Early Findings on the Effectiveness of Novel Awakening Stimuli for Patients with Congenital Central Hypoventilation Syndrome.
10. Pan-vaccinomics strategy for developing a universal multi-epitope vaccine against endocarditis-related pathogens.
11. Effect of Microbial Stimuli and Bone Morphogenetic Protein 2 on Ectopic Bone Formation.
12. The virulence toolkit of Staphylococcus aureus: a comprehensive review of toxin diversity, molecular mechanisms, and clinical implications.
13. Determining an appropriate fosfomycin (ZTI-01) dosing regimen in pneumonia patients by utilizing minimal PBPK modeling and target attainment analysis.
14. Patterns of the Circulation of Influenza in a Targeted Jordanian Subpopulation from November 2021 to April 2023.
15. Micro/Nanofibrous Polycaprolactone Scaffolds Loaded with Gentamicin for Improved Antimicrobial Activities under Seawater Immersion.
16. Multi-enzymatic biomimetic cerium-based MOFs mediated precision chemodynamic synergistic antibacteria and tissue repair for MRSA-infected wounds.
17. 3D Printed Human Amnion-Based Bioactive Hybrid Dressings for Effective Management of Complex Infected Wounds.
18. Preparation of Active On-Demand Antibacterial Hydrogel Epidermis Electrodes Based on Flora Balance Strategy for Intelligent Prostheses.
19. A Self-Assembling Cross-Protective Antigen Against Multiple Gram-Positive Nosocomial Pathogens.