**XF-73 Nasal Literature Review**

**Period: 24/06/2024 – 24/07/2024**

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Scientific Highlights

1. The Efficacy of an Alcohol-based Nasal Antiseptic versus Mupirocin or Iodophor for Preventing Surgical Site Infections - A Meta-analysis.
2. Staphylococcus aureus screening and preoperative decolonisation with Mupirocin and Chlorhexidine to reduce the risk of surgical site infections in orthopaedic surgery: a pre-post study.

SA Decolonisation

1. Induction of acute silkworm hemolymph melanization by Staphylococcus aureus treated with peptidoglycan-degrading enzymes.
2. In Situ Gelling Behavior and Biopharmaceutical Characterization of Nano-Silver-Loaded Poloxamer Matrices Designed for Nasal Drug Delivery.
3. Phenotypic and genotypic characterization of commensal staphylococci isolated from young volunteers in Alexandria, Egypt.
4. Hunting Dynamics and Identification of Potentially Pathogenic Bacteria in European Fallow Deer (Dama dama) across Three Hunting Reserves in Western Romania.
5. Efficacy and Safety of Xylitol Nasal Irrigation after Functional Endoscopic Sinus Surgery: A Randomized Controlled Study.
6. Swab Testing to Optimize Pneumonia treatment with empiric Vancomycin (STOP-Vanc): study protocol for a randomized controlled trial.
7. The hidden link: How oral and respiratory microbiomes affect multiple sclerosis.
8. General skin and nasal decolonization with octenisan® set before and after elective orthopedic surgery in selected patients at elevated risk for revision surgery and surgical site infections-a single-center, unblinded, superiority, randomized controlled trial (BALGDEC trial).
9. Nasal commensals reduce Staphylococcus aureus proliferation by restricting siderophore availability.
10. Prevalence of methicillin sensitive and resistant Staphylococcus aureus carriage among German emergency medical providers.
11. Draft genome sequences for a Staphylococcus aureus and a Staphylococcus haemolyticus isolate from nasal swab samples from healthy females.
12. Zoonotic linkage and environmental contamination of Methicillin-resistant Staphylococcus aureus (MRSA) in dairy farms: A one health perspective.
13. E-Cigarette Use, Cigarette Smoking, and Sex are Associated with Nasal Microbiome Dysbiosis.
14. Nasal microbiome and the effect of nasal decolonization with a novel povidone-iodine antiseptic solution: a prospective and randomized clinical trial.
15. 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.

SA / MRSA Colonisation / Infection

1. Identification of novel probiotic lactic acid bacteria from soymilk waste using the 16s rRNA gene for potential use in poultry.
2. Methicillin-Sensitive Staphylococcus aureus-Associated Leukocytoclastic Vasculitis: A Case Report and Literature Review.
3. Neutralizing antibodies after nebulized phage therapy in cystic fibrosis patients.
4. Temporal trends of skin and soft tissue infections caused by methicillin-resistant Staphylococcus aureus in Gabon.
5. Evaluation of a multiplex-qPCR for paediatric pleural empyema-An observational study in hospitalised children.
6. A group B streptococcal type VII secreted LXG toxin mediates interbacterial competition and colonization of the female genital tract.
7. Sodium alginate-based multifunctional sandwich-like system for treating wound infections.
8. The Effect of Retained Hardware on Failure Among Prosthetic Joint Infections of the Knee in the Presence and Absence of Staphylococcus aureus.
9. Long-Lasting Antibacterial PDMS Surfaces Constructed from Photocuring of End-Functionalized Polymers.
10. Recommendations for the Prevention and Management of Deep Brain Stimulation Infections Based on 26-Year Single-Center Experience.
11. Targeting S. aureus Extracellular Vesicles: A New Putative Strategy to Counteract Their Pathogenic Potential.
12. Formulation and Characterization of Nanoemulsion Incorporating Chamomilla recutita L. Extract Stabilized with Hyaluronic Acid.
13. Modern Microbiological Methods to Detect Biofilm Formation in Orthopedy and Suggestions for Antibiotic Therapy, with Particular Emphasis on Prosthetic Joint Infection (PJI).
14. Oleanolic Acid Promotes the Formation of Probiotic Escherichia coli Nissle 1917 (EcN) Biofilm by Inhibiting Bacterial Motility.
15. Early Intervention in Septic Arthritis of the Hand, Optimizing Patient Outcomes in Hand Infections-A Five-Year Retrospective Study.
16. Surgery for Active Infective Endocarditis on Mitral Valve: Anatomical, Surgical, and Disease Factors as Long-Term Outcome Modifiers.
17. Do High Doses of Multiple Antibiotics Loaded into Bone Cement Spacers Improve the Success Rate in Staphylococcal Periprosthetic Joint Infection When Rifampicin Cannot Be Employed?
18. The Impact of SARS-CoV-2 Pandemic on Antibiotic Prescriptions and Resistance in a University Hospital from Romania.
19. Multiplexed bacterial pathogen detection and clinical characteristics of orthopedic infection in hospitalized patients.
20. Microbial Pattern of Neonatal Sepsis in the Neonatal Intensive Care Unit of dr. Ramelan Navy Central Hospital.
21. The function of the complement system remains fully intact throughout the course of allogeneic stem cell transplantation.
22. Staphylococcus pseudintermedius and Pseudomonas aeruginosa Lubbock Chronic Wound Biofilm (LCWB): a suitable dual-species model for in vitro studies.
23. Concordance in bacterial colonization profiles between voice prostheses and oral microbiota post-laryngectomy: An experimental study.
24. The monotopic quinone reductases from Staphylococcus aureus.
25. Unlocking Wearable Microbial Fuel Cells for Advanced Wound Infection Treatment.
26. Population sequencing for diversity and transmission analyses.
27. [Evaluation of disinfection effect of high-energy pulse ultraviolet disinfection equipment in medical institution settings].
28. Mucin-induced surface dispersal of Staphylococcus aureus and Staphylococcus epidermidis via quorum-sensing dependent and independent mechanisms.
29. Flexible and transparent nanohole-patterned films with antibacterial properties against Staphylococcus aureus.
30. Adaptation to skin mycobiota promotes antibiotic tolerance in Staphylococcus aureus.
31. Antibacterial effect of Aloe Vera on Bacteria Isolated from Cases of Wound Infection.
32. Comparative evaluation of culture results and composition of microbiome of removed tonsils due to distant focal disease or other reasons. A prospective pilot study.
33. "All-in-one" self-healing and injectable cationic guar gum hydrogel dressing functionalized by bioactive complexes composed of natural small molecules.
34. Infective endocarditis associated with left atrial appendage occlusion device: a contemporary systematic review.
35. Off-label use of dalbavancin in children: a case series.
36. Infective endocarditis and spondylodiscitis -impact of sequence of surgical therapy on survival and recurrence rate.
37. Competitive inhibition and mutualistic growth in co-infections: deciphering Staphylococcus aureus-Acinetobacter baumannii interaction dynamics.
38. Transcriptional markers classifying Escherichia coli and Staphylococcus aureus induced sepsis in adults: A data-driven approach.
39. Selective Tumor Inhibition Effect of Drug-Free Layered Double Hydroxide-Based Films via Responding to Acidic Microenvironment.
40. Rapid identification and subsequent contextualization of an outbreak of methicillin-resistant Staphylococcus aureus in a neonatal intensive care unit using nanopore sequencing.
41. Rare association between spinal epidural abscess and septic arthritis of the hip in pediatric age: Case report.
42. Prevalence, genetic characteristics, and antimicrobial resistance of staphylococcal isolates from oral cavity and skin surface of healthy individuals in northern Japan.
43. The prevalence and risk factors of methicillin-resistant Staphylococcus aureus among pediatric populations: a systematic review and meta-analysis.
44. Bundle care approach to reduce device associated infections in post-living-donor-liver transplantation in a tertiary care hospital, Egypt.
45. Risk Factors and Microbiological Profile of Knee Periprosthetic Joint Infections with Sinus Tract.
46. Latent Chronic Osteomyelitis Presenting Decades After Initial Trauma: A Case Report and Literature Review.
47. Clinical Presentation and Outcomes Following Infection With Vibrio spp, Aeromonas spp, Chromobacterium violaceum, and Shewanella spp Water-Associated Organisms in Tropical Australia, 2015-2022.
48. Clinical prediction for surgical versus nonsurgical interventions in patients with vertebral osteomyelitis and discitis.
49. The myocutaneous gastrocnemius flap for periprosthetic joint infection of the knee.
50. Epidural spread of surgical site infection from spinal cord stimulation trial.
51. Long-Term Prevention of Biofilm Formation by Polycatechol-Based Supramolecular Assemblies with Low Molecular Weight Polymers on Surfaces.
52. Dual phage-incorporated electrospun polyvinyl alcohol-eudragit nanofiber matrix for rapid healing of diabetic wound infected by Pseudomonas aeruginosa and Staphylococcus aureus.
53. Antibacterial potential of Stenotrophomonas maltophilia complex cystic fibrosis isolates.
54. Real-World Use and Treatment Outcomes of Ceftaroline Fosamil in Patients with Complicated Skin and Soft Tissue Infection: A Multinational Retrospective Study.
55. Impact of terminal cleaning in rooms previously occupied by patients with healthcare-associated infections.
56. Microbial ecology of protective isolation room: Air and Surfaces.
57. Can Periprosthetic Joint Infection of Tumor Prostheses Be Controlled With Debridement, Antibiotics, and Implant Retention?
58. The effects of chlorhexidine, povidone-iodine, and vancomycin on growth and biofilms of pathogens that cause prosthetic joint infections: an in vitro model.
59. Prevalence and antimicrobial susceptibility patterns of bacteria colonizing the external ocular surfaces of patients undergoing ocular surgeries at Bugando Medical Center in Mwanza, Tanzania.
60. Bacillus subtilis-derived peptides disrupt quorum sensing and biofilm assembly in multidrug-resistant Staphylococcus aureus.
61. Genomic analysis and identification of a novel superantigen, SargEY, in Staphylococcus argenteus isolated from atopic dermatitis lesions.
62. Escherichia coli Activate Extraintestinal Antibody Response and Provide Anti-Infective Immunity.
63. Reactive Oxygen Species (ROS)-Mediated Antibacterial Oxidative Therapies: Available Methods to Generate ROS and a Novel Option Proposal.
64. A Label-Free Optical Flow Cytometry Based-Method for Rapid Assay of Disinfectants' Bactericidal Activity.
65. An Exploratory Analysis of the Association between Healthcare Associated Infections & Hospital Financial Performance.
66. Dynamic Adhesive Behavior and Biofilm Formation of Staphylococcus aureus on Polylactic Acid Surfaces in Diabetic Environments.
67. Bi-institutional analysis of microbiological spectrum and therapeutic management of parotid abscesses.
68. Hemorrhagic shock from gastric pseudoaneurysm post-percutaneous endoscopic gastrostomy: a case report.
69. Ruthenibacterium lactatiformans isolated from a human blood culture: a first report.
70. A Rare Case of Broad Ligament Hematoma Following Vaginal Delivery.
71. Case report: pseudoaneurysm of left ventricle secondary to infective endocarditis complicated by cardiac rupture-a multimodality imaging approach.
72. Vancomycin-Loaded Sol-Gel System for In Situ Coating of Artificial Bone to Prevent Surgical Site Infections.
73. Experimental colonization with H. hepaticus, S. aureus and R. pneumotropicus does not influence the metabolic response to high-fat diet or incretin-analogues in wildtype SOPF mice.
74. Microbiological characteristics of the lower airway in adults with bronchiectasis: a prospective cohort study.
75. Epidemiological and microbial trends of infective endocarditis in western Norway: a 7-year prospective observational study.
76. Postbiotic lactobacilli induce cutaneous antimicrobial response and restore the barrier to inhibit the intracellular invasion of Staphylococcus aureus in vitro and ex vivo.
77. Mobile genetic element-driven genomic changes in a community-associated methicillin-resistant Staphylococcus aureus clone during its transmission in a regional community outbreak in Japan.
78. Crossroads of Care: Navigating Injection Drug Use-Associated Endocarditis.
79. The treatment of bacterial biofilms cultivated on knee arthroplasty implants using the bioelectric effect.
80. Coagulase-negative staphylococci from bovine milk: Antibiogram profiles and virulent gene detection.
81. Glioma grade and post-neurosurgical meningitis risk.
82. Device and surgical procedure-related infections in Canadian acute care hospitals, 2018-2022.
83. Infective endocarditis in HIV-infected patients. Analysis of a national cohort.
84. Bioresorbable Polyester Coatings with Antifouling and Antimicrobial Properties for Prevention of Biofilm Formation in Early Stage Infections on Ti6Al4V Hard-Tissue Implants.
85. SARS-CoV-2 infection predisposes patients to coinfection with Staphylococcus aureus.
86. Dual-Layer Nanoengineered Urinary Catheters for Enhanced Antimicrobial Efficacy and Reduced Cytotoxicity.
87. Invasive Community-Acquired Methicillin-Resistant Staphylococcus aureus With Aortic Aneurysm in a 10-Year-Old Patient: A Case Report.
88. [Clinical, aetiological and therapeutic features of severe sickle cell related vaso-occlusive crisis at the Sylvanus Olympio University Hospital, Lomé].
89. Hair removal with a clipper and microbial colonisation prior to knee arthroplasty: a randomised controlled trial.
90. Exploring the targetome of IsrR, an iron-regulated sRNA controlling the synthesis of iron-containing proteins in Staphylococcus aureus.
91. Tumor necrosis factor regulates leukocyte recruitment but not bacterial persistence during Staphylococcus aureus craniotomy infection.
92. Targeted enhancement of bacteriophage activity against antibiotic-resistant Staphylococcus aureus biofilms through an evolutionary assay.
93. Community-acquired necrotizing pneumonia caused by methicillin-resistant Staphylococcus aureus in a healthy pregnant woman after being infected with influenza A: A case report for early warning.

Guidelines / Prevention Practice

1. When Antimicrobial Treatment and Surgical Prophylaxis Collide: A Stewardship Opportunity.
2. Building Capacity for Cervical Cancer Prevention in U.S.-Affiliated Pacific Islands: The Pacific Against Cervical Cancer Project.
3. Implementation of Surgical Site Infection Care Bundle in Patients Undergoing Gastrointestinal Surgeries.
4. Epidemiology of healthcare-associated endometritis after surgical abortion in Ukraine: results a multicenter study.
5. Duration of surgical antibiotic prophylaxis and surgical site infection in orthopaedic surgery: A prospective cohort study.

Breast Surgery

1. The SAEORA Flap for Prosthetic Breast Reconstruction: A Novel Flap Design without the Use of Acellular Dermal Matrices.
2. Surgical and Patient-Reported Outcomes After Mastectomy and Implant-Based Prepectoral Reconstruction Using TIGR® Synthetic Mesh.
3. Preoperative depression is an independent risk factor for short-term morbidities in autologous and implant-based breast reconstruction.
4. Stellate ganglion block beyond chronic pain: A literature review on its application in painful and non-painful conditions.
5. Preventing Pneumonia in High-risk Patients After Esophageal Cancer Surgery: Mini-tracheostomy and Tazobactam/Piperacillin.
6. Hyperbaric Oxygen Therapy for Complications in Nipple-Sparing Mastectomy with Breast Reconstruction: A Systematic Review.
7. Postoperative outcomes of minimally invasive versus conventional nipple-sparing mastectomy with prosthesis breast reconstruction in breast cancer: a meta-analysis.
8. Mycobacterium wolinskyi infection after breast augmentation: A case report and comprehensive review.
9. Development and validation of a nomogram for breast cancer-related lymphedema.
10. Preliminary results of Polish national multicenter study on colostomy reversal - LICO (Liquidation of Colostomy) study.
11. Filler Found in Bone: Surgical Removal of Polyacrylamide Hydrogel (Amazingel) from the Mandible After 24 Years: A Case Report and Literature Review.
12. Effectiveness of extended antibiotic prophylaxis in implant-based breast reconstruction surgery: A meta-analysis.
13. Digestive and breast cancer patients managed during the first wave of COVID-19 pandemic: Short and middle term outcomes.
14. Temporary Declines and Demand Resurgence: Gender-Affirming Surgery Volume and Complication Trends During and After the COVID-19 Pandemic.
15. A Prospective Study of Sutured Versus Non-sutured Subcutaneous Fat Tissue in Laparotomy Wound Closure.
16. Breast reconstruction through exclusive lipomodeling or in addition to a flap: Current status in Franche-Comté.
17. [Post-mastectomy necrotizing fasciitis and immediate prosthetic breast reconstruction: First case report].
18. A Multi-Center Retrospective Observational Analysis of Three-Year Experience of Our Protocol for Prevention and Monitoring of Surgical Site Infections in Implant-Based Breast Reconstruction.
19. Autologous haematopoiesis stem cell transplantation (AHSCT) for treatment-refractory autoimmune diseases in children.
20. Association Between Membranoproliferative Glomerulonephritis and Colorectal Cancer - A Case Report.
21. Outcomes of the Electrothermal Bipolar Vessel Sealing Device and Electrocautery in Modified Radical Mastectomy Patients.
22. Comparison of Intraoperative and Postoperative Outcomes With Skin Flaps Raised Using Either Harmonic Scalpels or Electrocautery During Modified Radical Mastectomy.
23. [Analysis of preoperative assessment of glandular mass in gynecomastia].
24. [Study of heat steam induced skin damage prevention in robotic nipple-sparing mastectomy and immediate breast reconstruction using Da Vinci Robot].
25. [Effectiveness of sequential method pure single-port lumpectomy-breast conserving surgery for early-stage breast cancer in different quadrants].
26. [Clinical application of endoscopic radical mastectomy for breast cancer combined with total pectoral muscle reconstruction with breast implants].
27. Reduction Mammoplasties: Risk Factors and Early Complications-About 1442 Cases.
28. Risk factor analysis and clinical experience of treating capsular contracture after prepectoral implant-based breast reconstruction.
29. Randomized Controlled Trial to Assess Negative Pressure Wound Therapy versus Standard-of-care Dressings in Breast Surgery: A Pilot Study.
30. Massive Chylous Leakage After Endoscopic Thyroidectomy with Central Lymph Node Dissection: A Case Report.
31. Short-term versus extended chemoprophylaxis against venous thromboembolism in DIEP flap breast reconstruction: A retrospective study of 424 patients.
32. Identification of Potential Factors Associated with Cellulitis Following Lymphovenous Bypass Surgery in Breast Cancer Survivors.

Mupirocin resistance

1. Review: the spectrum of antimicrobial resistance in bacteria isolated from wounds of patients with epidermolysis bullosa.
2. Protium spruceanum Extract Enhances Mupirocin Activity When Combined with Nanoemulsion-Based Hydrogel: A Multi-Target Strategy for Treating Skin and Soft Tissue Infections.
3. The mesenchymal stromal cell secretome promotes tissue regeneration and increases macrophage infiltration in acute and methicillin-resistant Staphylococcus aureus-infected skin wounds in vivo.
4. Biofilm-producing ability of methicillin-resistant Staphylococcus aureus clinically isolated in China.
5. Emergence of novel methicillin resistant Staphylococcus pseudintermedius lineages revealed by whole genome sequencing of isolates from companion animals and humans in Scotland.
6. Photodynamic activation of phytochemical-antibiotic combinations for combatting Staphylococcus aureus from acute wound infections.

Competitors

1. Characterization of bacterial and viral pathogens in the respiratory tract of children with HIV-associated chronic lung disease: a case-control study.
2. Increase in methicillin-resistant Staphylococcus spp. colonization among pregnant individuals during COVID-19 pandemic.
3. Autism spectrum disorder in young patients with congenital central hypoventilation syndrome: role of the autonomic nervous system dysfunction.
4. Staphylococcus aureus Proteases: Orchestrators of Skin Inflammation.
5. Nasopharyngeal carriage and antibiotic susceptibility patterns of streptococcus pneumoniae, haemophilus influenzae, moraxella catarrhalis and staphylococcus aureus among urban Ugandan children post-PCV10 introduction: a cross-sectional study.
6. IL-10 inhibition during immunization improves vaccine-induced protection against Staphylococcus aureus infection.
7. A fungal metabolic regulator underlies infectious synergism during Candida albicans-Staphylococcus aureus intra-abdominal co-infection.
8. Nitric oxide releasing coatings for the prevention of viral and bacterial infections.
9. Diagnosis and management of a herpes nipple infection that resulted in neonatal HSV encephalitis.
10. Evaluation of the efficacy of a new inactivated vaccine against Staphylococcus aureus, Echerchia coli and Mycoplasma bovis mastitis in cows.
11. Metabolic remodeling by RNA polymerase gene mutations is associated with reduced β-lactam susceptibility in oxacillin-susceptible MRSA.
12. Efficient synthesis of CRISPR-Cas13a-antimicrobial capsids against MRSA facilitated by silent mutation incorporation.
13. Molecular methods enhance the detection of pyoderma-related Streptococcus pyogenes and emm-type distribution in children.
14. Protease shaving of Mycobacterium tuberculosis facilitates vaccine antigen discovery and delivery of novel cargoes to the Mtb surface.
15. Nano-mupirocin as tumor-targeted antibiotic: Physicochemical, immunotoxicological and pharmacokinetic characterization, and effect on gut microbiome.
16. A Novel Nasal Endoscopy-Assisted Method for Sealing Cerebrospinal Fluid Rhinorrhea.
17. Host-induced cell wall remodeling impairs opsonophagocytosis of Staphylococcus aureus by neutrophils.