**XF-73 Nasal Literature Review**

**Period: 24/08/2024 – 24/09/2024**

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Scientific Highlights

SA Decolonisation

1. Pan-pathogen deep sequencing of nosocomial bacterial pathogens in Italy in spring 2020: a prospective cohort study.
2. Epidemiology and antibiotic resistance of staphylococci on commercial pig farms in Cape Town, South Africa.
3. Neisseria meningitidis: The Unforeseen Agent of Acute Neonatal Conjunctivitis.
4. Prevalence and Clinical Impact of Viral and Bacterial Coinfections in Hospitalized Children and Adolescents Aged under 18 Years with COVID-19 during the Omicron Wave in Russia.
5. Pathogenesis, Diagnosis, and Treatment of Infectious Rhinosinusitis.
6. Multidrug-Resistant Staphylococcus aureus Colonizing Pigs and Farm Workers in Rio de Janeiro State, Brazil: Potential Interspecies Transmission of Livestock-Associated MRSA (LA-MRSA) ST398.
7. Genetic Characterization of Antibiotic-Resistant Staphylococcus spp. and Mammaliicoccus sciuri from Healthy Humans and Poultry in Nigeria.
8. Prevalence of Selected Immune Evasion Genes and Clonal Diversity in Methicillin-Susceptible Staphylococcus aureus Isolated from Nasal Carriers and Outpatients with Cut Wound Infections.
9. Combining Network Pharmacology and Transcriptomics to Investigate the Mechanisms of Yujiang Paidu Decoction in the Treatment of Chronic Rhinosinusitis with Nasal Polyps.
10. Investigating genomic diversity of Staphylococcus aureus associated with pediatric atopic dermatitis in South Africa.
11. Pediatric Clinical Outcomes of Nasal Methicillin-resistant Staphylococcus aureus Polymerase Chain Reaction Utilization.
12. Quercetin Alleviates the Progression of Chronic Rhinosinusitis Without Nasal Polyps by Inhibiting Nasal Mucosal Inflammation and Epithelial Apoptosis.
13. Orbital Complication in the Setting of Cocaine Use: A Case Report and Review of Literature.
14. Rhino-orbital-cerebral mucormycosis with Klebsiella and MRSA co-infection in a diabetic patient: a case report.
15. Inducible clindamycin-resistant and biofilm formation in the Staphylococcus aureus isolated from healthcare worker's anterior nasal carriage.
16. Genomic approach to determine sources of neonatal Staphylococcus aureus infection from carriage in the Gambia.
17. Unveiling the multitargeted potential of deprodone and control comparison with linezolid against hydrolase and transferase enzymes of methicillin-resistant Staphylococcus aureus.
18. Genome-based model for differentiating between infection and carriage Staphylococcus aureus.
19. Challenges in Managing Newly Diagnosed Granulomatosis With Polyangiitis and Concurrent Respiratory Infections: A Retrospective Case Series.
20. Prevalence and risk factors associated with nasal carriage of methicillin-resistant staphylococci in horses and their caregivers.
21. A New Method for Obtaining Monospecies and Binary Cultures of Staphylococcus spp. in Alginate Gel and the Study of the Action of Active Compounds on These Cultures on the Example of Catecholamines.
22. Successful use of daptomycin and cefazolin in a case of persistent bacteremia caused by community acquired-methicillin resistant Staphylococcus aureus in a pregnant woman. Case report.
23. Transcriptional Profiling of Staphylococcus aureus during the Transition from Asymptomatic Nasal Colonization to Skin Colonization/Infection in Patients with Atopic Dermatitis.
24. Type 1 interferons promote Staphylococcus aureus nasal colonization by inducing phagocyte apoptosis.
25. The developing pig respiratory microbiome harbors strains antagonistic to common respiratory pathogens.
26. Nasal Carriage, Antimicrobial Susceptibility Profile, and Enterotoxin Genes of Staphylococcus aureus Isolated from Children with Asthma.
27. Evaluation of methicillin-resistant Staphylococcus aureus nasal swab screening at a large comprehensive cancer center.
28. Diagnostic utility of nasal methicillin-resistant Staphylococcus aureus polymerase chain reaction testing in head and neck infection.
29. The added value of perineal swabs when screening for asymptomatic methicillin-resistant Staphylococcus aureus colonization and risk factors for perineal carriage.
30. Functional Study of desKR: a Lineage-Specific Two-Component System Positively Regulating Staphylococcus aureus Biofilm Formation.

SA / MRSA Colonisation / Infection

1. Microbiological profiles in periprosthetic joint infections after total knee arthroplasty: a comparative analysis of diabetic and non-diabetic patients.
2. Patterns of fluoroquinolone utilization and resistance in a tertiary care hospital: a retrospective cross-sectional analysis study from a developing country.
3. Gingerol-zinc complex loaded 3D-printed calcium phosphate for controlled release application.
4. Patch Infection Following Carotid Endarterectomy: A Single-Center Audit and Literature Review.
5. Impact of Fixed Partial Dentures on Oral Microbial Flora and Gingival Health: An In Vitro Assessment of Salivary Microbial Profiles.
6. Successful conservative management of advanced pyogenic sternoclavicular joint arthritis with osteomyelitis and pulmonary infiltration: a case report.
7. Persistent Methicillin-Resistant Staphylococcus aureus (MRSA) Nares Test Positivity During Initial Days of Systemic Anti-Staphylococcal Antimicrobial Therapy.
8. A surgical odyssey: Conquering a titanic tricuspid vegetation reaching into the superior vena cava - A case report.
9. Antibiotic-loaded nanoparticles for the treatment of intracellular methicillin-resistant Staphylococcus Aureus infections: In vitro and in vivo efficacy of a novel antibiotic.
10. Effective biofilm eradication in MRSA isolates with aminoglycoside-modifying enzyme genes using high-concentration and prolonged gentamicin treatment.
11. Isolated pulmonary valve endocarditis in a pediatric patient with down syndrome.
12. ESKAPE pathogens in pediatric cardiac surgery patients: 5-year microbiological monitoring in a tertiary hospital in Kazakhstan.
13. A group B streptococcal type VII-secreted LXG toxin mediates interbacterial competition and colonization of the murine female genital tract.
14. Effective Management of Methicillin-Resistant Shoulder Septic Arthritis Using Continuous Local Antibiotic Perfusion: A Case Study and Long-Term Follow-Up.
15. Vacuum Sealing Drainage against Surgical Site Infection after Intracranial Neurosurgery.
16. Microbial Diversity of Periprosthetic Joint Infections in Diabetic and Non-Diabetic Patients Following Hip Arthroplasty.
17. Infective endocarditis outcomes at a tertiary hospital in Western Australia: a retrospective cohort study from 2016 to 2021.
18. Prevalence and impact of multidrug-resistant bacteria in solid cancer patients with bloodstream infection: a 25-year trend analysis.
19. Rate of nosocomial MRSA transmission evaluated via contact screening.
20. A Foundation Model Identifies Broad-Spectrum Antimicrobial Peptides against Drug-Resistant Bacterial Infection.
21. Antibacterial and antioxidative hydrogel dressings based on tannic acid-gelatin/oxidized sodium alginate loaded with zinc oxide nanoparticles for promoting wound healing.
22. The circulation of methicillin-resistant Staphylococcus aureus between humans, horses and the environment at the equine clinic.
23. Oxacillin-resistant Staphylococcus spp.: Impacts on fatality in a NICU in Brazil - confronting the perfect storm.
24. Tissue resident cells differentiate S. aureus from S. epidermidis via IL-1β following barrier disruption in healthy human skin.
25. Methicillin-resistant Staphylococcus aureus outbreak in a Dutch equine referral clinic.
26. Enhanced Antibacterial Efficacy of Bioceramic Implants Functionalized with Ciprofloxacin: An In Silico and In Vitro Study.
27. Prevalence of Staphylococcus aureus Infections in the Implantation of Orthopedic Devices in a Third-Level Hospital: An Observational Cohort Study.
28. Clinical Characterization of Pathogens, Risk Factors and Quality of Life in an Observational Study of Native vs. Prosthetic Aortic Valve Endocarditis Surgery.
29. Degree of Contamination of Gutta-Percha Points by Staphylococcus aureus (MRSA/MSSA) Strains.
30. Open Surgical Conversion of Popliteal Endograft Infection: Case Reports and Literature Review.
31. Antimicrobial Properties and Cytotoxicity of LL-37-Derived Synthetic Peptides to Treat Orthopedic Infections.
32. Novel insights into vancomycin-loaded calcium sulfate and negative pressure wound therapy in preventing infections in open fractures.
33. Systematic Review and Meta-analysis on Antimicrobial Resistance and Drug Resistance in Saudi Arabia.
34. Assessment of patients' baseline cystic fibrosis knowledge levels following translation and adaptation of the CF R.I.S.E translation program into Turkish.
35. Positive-Charge-Based Small Molecule Dyes for Gut Microbiota Fluorescent Imaging.
36. Antimicrobial Tolerance in Cross-Kingdom Dual-Species Biofilms Formed by Fungi and Bacteria.
37. Evaluation of the long-term protection conferred by an organosilicon-based disinfectant formulation against bacterial contamination of surfaces.
38. Detection of Staphylococcal Enterotoxins A and E and Methicillin Resistance in Staphylococcus aureus Strains From Moroccan Broiler Chicken Meat.
39. Effective surgical drainage of a massive retropharyngeal abscess via an incision in the posterior wall of the oropharynx under local anesthesia.
40. Clinical profile, microbiology and outcomes in infective endocarditis treated with aortic valve replacement: a multicenter case-control study.
41. Evaluation of virulence determinants and cell surface properties associated with biofilm formation in Methicillin-Resistant Staphylococcus aureus (MRSA) and Extended Spectrum Beta-Lactamase (ESBL) Escherichia coli from livestock and poultry origin.
42. Isolation of the novel phage SAP71 and its potential use against Staphylococcus aureus in an atopic dermatitis mouse model.
43. Crosslinked hybrid polymer/ceramic composite coatings for the controlled release of clindamycin.
44. Rapid and sensitive detection of methicillin-resistant Staphylococcus aureus through the RPA-PfAgo system.
45. Clinical presentations and diagnostic approaches of pediatric necrotizing tracheobronchitis with influenza A virus and Staphylococcus aureus co-infections.
46. Ferrous sulfate remodels the properties of sodium alginate-based hydrogel and facilitates the healing of wound infection caused by MRSA.
47. Does NexoBrid® have antimicrobial properties?
48. Penicillin susceptibility among Staphylococcus aureus skin and soft tissue infections at a children's hospital.
49. ESKAPE Pathogens: Antimicrobial Resistance Patterns, Risk Factors, and Outcomes a Retrospective Cross-Sectional Study of Hospitalized Patients in Palestine.
50. Bacteriophage therapy as an innovative strategy for the treatment of Periprosthetic Joint Infection: a systematic review.
51. The occurrence of Aerococcus urinaeequi and non-aureus staphylococci in raw milk negatively correlates with Escherichia coli clinical mastitis.
52. Intracellular bactericidal activity and action mechanism of MDP1 antimicrobial peptide against VRSA and MRSA in human endothelial cells.
53. Peritonitis caused by Mycoplasma hominis after laparoscopic total hysterectomy: A case report.
54. Prevalence and anti-microbial resistance of Staphylococcus spp. isolated from the environment and veterinary personnel in a Spanish veterinary teaching hospital.
55. Antibacterial Immunonegative Coating with Biocompatible Materials on a Nanostructured Titanium Plate for Orthopedic Bone Fracture Surgery.
56. Microbial Contamination in Contact Lenses, Lens Care Solutions, and Accessories Among Asymptomatic Soft Contact Lens Users.
57. Evaluation of the Antimicrobial Resistance Pattern of Nosocomial Infections in Patients Hospitalized in Chamran Heart Educational, Medical, and Research Center of Isfahan.
58. Endophytic fungal diversity and bioactive potentials: investigating antimicrobial and antioxidant activities.
59. Phenotypic and genotypic characterization of methicillin resistant Staphylococcus aureus associated with pyogenic infections.
60. Synthesis, Characterization and Application of Advanced Antimicrobial Electrospun Polymers.
61. Biofilm inhibition of Staphylococcus aureus by silver nanoparticles derived from Hellenia speciosa rhizome extract.
62. Longitudinal two-years comparative genomic analysis of respiratory Staphylococcus aureus isolates from ICU mechanically ventilated patients.
63. Critical Chest Wall Necrotizing Fasciitis Triggered by Herpes Zoster: A Case Report.
64. The aetiology and antimicrobial resistance of bacterial maternal infections in Sub-Saharan Africa-a systematic review and meta-analysis.
65. Comparison of bloodstream infections due to Corynebacterium striatum, MRSA, and MRSE.
66. Study on hand disinfection in inpatient geriatric care on the superiority of cold plasma aerosol versus alcohol-based disinfection methods in a parallel group design.
67. Antibiofilm activity of truncated Staphylococcus aureus phenol soluble modulin α2 (SaΔ1Δ2PSMα2) against Candida auris in vitro and in an animal model of catheter-associated infection.
68. Central venous catheter-related infection: does insertion site still matter? A French multicentric cohort study.
69. Gentamicin and clindamycin antibiotic-eluting depot technology eradicates S. aureus in an implant-associated osteomyelitis pig model without systemic antibiotics.
70. The Complicated Case of Staphylococcus aureus Bacteremia Associated With Delayed-Onset Prosthetic Joint Infection: A Case Report and Review of Management Strategies.
71. An immunotherapeutic hydrogel booster inhibits tumor recurrence and promotes wound healing for postoperative management of melanoma.
72. Enhanced Antimicrobial Properties of Polymeric Denture Materials Modified with Zein-Coated Inorganic Nanoparticles.
73. Prevalence and Antibiotic Resistance Patterns of Methicillin-Resistant Staphylococcus aureus (MRSA) in a Hospital Setting: A Retrospective Study from 2018 to 2022.
74. The attributable mortality, length of stay, and health care costs of methicillin-resistant Staphylococcus aureus infections in Singapore.
75. Unravelling the physicochemical and antimicrobial mechanisms of human serum albumin/tannic acid coatings for medical-grade polycaprolactone scaffolds.
76. Pediatric calcaneal osteomyelitis: an analysis of literature-reported 128 cases.
77. Antimicrobial Resistance in Bacterial Species Causing Orthopaedic Surgical Site Infections at a National Trauma Center, Kathmandu, Nepal.
78. Trends and outcomes in community-onset and hospital-onset Staphylococcus bacteremia among hospitals in the United States from 2015 to 2020.
79. A Systematic Review of Distinction of Colonization and Infection in Studies that Address C. Acnes and Shoulder Surgery.
80. Study on the Synergistic Effects of Cu and Sr on Biodegradable Zn Alloys.
81. Antimicrobial resistance among migrants in Europe: a systematic review and meta-analysis - update from 2017 to 2023.
82. Urinary tract infection among people living with human immunodeficiency virus attending selected hospitals in Addis Ababa and Adama, central Ethiopia.
83. Analysis of the Pathogen Distribution and Antimicrobial Resistance after Plastic Surgery of the Urogenital System.
84. The infectious capacity of Enterococcus faecalis, Staphylococcus aureus, and Staphylococcus saprophyticus in a porcine model of urinary tract infection.
85. Effect of Staphylococcus aureus colonization and immune defects on the pathogenesis of atopic dermatitis.
86. Incidence of infection rate for shunt implantation: the zero % rate is always a myth.
87. Ticagrelor alters the membrane of Staphylococcus aureus and enhances the activity of vancomycin and daptomycin without eliciting cross-resistance.
88. Fracture-related infections after osteosynthesis for hip fracture are associated with higher mortality: A retrospective single-center cohort study.

Guidelines / Prevention Practice

1. Potential implications of using locally validated risk factors for drug-resistant pathogens in patients with community-acquired pneumonia in US hospitals: A cross-sectional study.
2. Microbiology testing capacity and antimicrobial drug resistance in surgical-site infections: a post-hoc, prospective, secondary analysis of the FALCON randomised trial in seven low-income and middle-income countries.
3. Preparation of Patients for Central Venous Catheter Care in the Home: Perspectives From Health Care Personnel.

Breast Surgery

1. Tremendous and infrequently adenoid cystic carcinoma of the breast without any metastasis for more than 20 years: A case report.
2. Monitored Anesthesia Care (MAC) as an Alternative to General Anesthesia (GA): Prospective Double-Blinded Randomized Controlled Study Comparing Efficacy and Safety of Dexmedetomidine and Ketamine Infusions with Ultrasonography (USG) Guided Pectoral Nerve Block (PECs) for Postoperative Analgesia in Breast Surgery.
3. Endoscopic resection of benign breast tumors via a single axillary incision using the insufflation method: a preliminary summary report.
4. Clinical features and outcomes in kidney transplant recipients with COVID-19 pneumonia: a single center retrospective cohort study.
5. The Impact of Tamoxifen Usage in Breast Cancer Patients on the Development of Histopathological Lesions in the Cervix Uteri.
6. Early post-operative outcome of pre-pectoral implant-based immediate total breast reconstruction with Polyglactin 910 (Vicryl™) mesh - low cost solution for a low-middle income country.
7. A Case of Autoimmune Neutropenia in a Patient Undergoing Breast Cancer Surgery.
8. Diabetic mastopathy: about two cases.
9. Implant-based Breast Reconstruction Salvage with Negative Pressure Wound Therapy with Instillation: An Evaluation of Outcomes.
10. The Risk of Deep Vein Thrombosis and Optimal Timing of Breast Cancer Surgery After COVID-19 Infection.
11. Early Outcomes of the Surgical Treatment of Non-traumatic Massive Pericardial Effusion in the University of the Philippines - Philippine General Hospital COVID-19 Referral Center.
12. Penetrating cardiac injury after percutaneous breast core-needle biopsy, unusual life-threatening complication: a case report.
13. First Results of the Primary Outcome of a Phase II Prospective Clinical Trial to Assess the Feasibility of Preoperative Radiation Boost in Breast Cancer Patients.
14. A surgical site abscess caused by an ant bite on foot 7 years after mastectomy: A case report.
15. Case report: Clinicopathological characteristic of two cases of primary endometrial squamous cell carcinoma and review of the literature.
16. Nanocarbon-Polymer Composites for Next-Generation Breast Implant Materials.
17. Case report of the combination of a TRAM flap, lipofilling, and 3-D tattooing after failed implant-based reconstruction: improving aesthetic results.
18. Delivery mode and maternal gestational diabetes are important factors in shaping the neonatal initial gut microbiota.
19. Clinical outcomes of breast reconstruction using omental flaps: A systematic review.
20. Is Oncoplastic Surgery Safe in High-Risk Breast Cancer Phenotypes?
21. Clinical study of ultrasound-guided minimally invasive catheterization combined with compound cortex phellodendri fluid in the treatment of lactational breast abscess.
22. Comprehensive analysis of risk factors for postoperative wound infection following open reduction and internal fixation of Rib fractures.
23. Risk Factors for Early Postoperative Morbidity and Mortality following Extremity Metastatic Pathologic or Impending Fracture Fixation.
24. Is the combination of interfascial plane blocks sufficient for awake breast cancer surgery? An observational, prospective, proof-of-concept study.
25. Preventive Paradox? Postoperative Outcomes After Risk-Reducing Mastectomy and Direct-to-Implant Breast Reconstruction.
26. Global, regional, and national burden of stroke and its risk factors, 1990-2021: a systematic analysis for the Global Burden of Disease Study 2021.

Mupirocin resistance

1. Prevalence of methicillin-resistant Staphylococcus aureus (MRSA) harboring mupirocin and biocide resistance genes in a large healthcare system.
2. Mupirocin for Skin Infection: Clinical Experience from China.

Competitors

1. Conserved moonlighting protein pyruvate dehydrogenase induces robust protection against Staphylococcus aureus infection.
2. Immunoinformatic approach for multi-epitope vaccine design against Staphylococcus aureus based on hemolysin proteins.
3. Forssman and the staphylococcal hemolysins.
4. Reduction of peritoneal dialysis associated infections using a novel exit-site care practice.
5. Antimicrobial Susceptibility and Genomic Profiles of Multidrug-Resistant Staphylococcus aureus from Nasopharynx of Asymptomatic Children in Dhaka, Bangladesh.
6. Correction: Narongpun et al. Whole-Genome Investigation of Zoonotic Transmission of Livestock-Associated Methicillin-Resistant Staphylococcus aureus Clonal Complex 398 Isolated from Pigs and Humans in Thailand. Antibiotics 2023, 12, 1745.
7. Integrated epigenomic exposure signature discovery.
8. QSAR Studies on a Class of Benzofuranene Cyanide Derivatives as Potential Inhibitors Targeting Staphylococcus aureus Sortase A.
9. Mycobacterium abscessus Cutaneous Infection in the Immunosuppressed: A Case Report on an Atypical Pathogen.
10. Astodrimer sodium nasal spray forms a barrier to SARS-CoV-2 in vitro and preserves normal mucociliary function in human nasal epithelium.
11. Washing Illness Away: A Systematic Review of the Impact of Nasal Irrigation and Spray on COVID-19.
12. Fabrication of Mupirocin-Loaded PEGylated Chitosan Nanoparticulate Films for Enhanced Wound Healing.
13. Phagemid-based capsid system for CRISPR-Cas13a antimicrobials targeting methicillin-resistant Staphylococcus aureus.
14. Strategy against super-resistant bacteria: Curdlan-induced trained immunity combined with multi-epitope subunit vaccine.
15. Glycan-specific IgM is critical for human immunity to Staphylococcus aureus.
16. Global burden of bacterial antimicrobial resistance 1990-2021: a systematic analysis with forecasts to 2050.
17. Herpes zoster ophthalmicus following recombinant zoster vaccine: A case report and brief literature review.
18. MPO-ANCA-positive rapidly progressive glomerulonephritis after COVID-19 vaccination during treatment of plaque psoriasis with bimekizumab.
19. Surgical management for the case of scrotal myiasis in a 7-day-old neonate: a case report.
20. Antimicrobial resistance profiling of bacteria isolated from wastewater and environmental samples of pharmaceutical industries in South India.