**XF-73 Nasal Literature Review**

**Period: 24/04/2024 – 24/05/2024**

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Scientific Highlights

1. Implementing nasal povidone-iodine decolonization to reduce infections in hemodialysis units: a qualitative assessment.

SA Decolonisation

1. The antimicrobial fibupeptide lugdunin forms water-filled channel structures in lipid membranes.
2. Airway epithelial CD47 plays a critical role in inducing influenza virus-mediated bacterial super-infection.
3. Infective dermatitis associated with human T-cell lymphotropic virus type-1, an underdiagnosed disease.
4. Nasal Staphylococcus aureus Carriage and Antimicrobial Resistance Profiles Among Community-Dwelling Adults in Jiangsu, China.
5. Detection of multidrug-resistant bacteria in the nasal cavities and evaluation of sinus disorders in patients undergoing Le Fort I osteotomy.
6. Antibacterial polyurethane foams with quaternized-chitosan as a chain extender for nasal packing and hemostasis.
7. Genomic characterization of Staphylococcus aureus isolated from patients admitted to intensive care units of a tertiary care hospital: epidemiological risk of nasal carriage of virulent clone during admission.
8. Staphylococcus aureus Nasal Carriage is Significantly Less Likely in Solid Organ Transplant Recipients on Post-transplant Antibiotic Prophylaxis.
9. Prevalence of multi-drug resistant bacteria in intensive care units at Tripoli University Hospital, Tripoli, Libya.
10. Lipase-mediated detoxification of host-derived antimicrobial fatty acids by Staphylococcus aureus.
11. Can habits and behaviors predict colonization by community-associated MRSA in patients admitted to a Brazilian hospital?
12. Anatomy and function of the canalis sinuosus and its injury prevention and treatment strategies in implant surgery.
13. Screening of vancomycin resistance-associated genes in methicillin-resistant Staphylococcus aureus isolates from cattle, sheep and goats in northwestern Iran.
14. Nasal carriage of virulent and multidrug resistant Staphylococcus aureus: a possible comorbidity of COVID-19.

SA / MRSA Colonisation / Infection

1. Local vancomycin administration in Orthopaedic Surgery - A systematic review of comparative studies.
2. Antibacterial effect and biocompatibility of silver nanoparticle-coated bone allograft substitutes.
3. Antibiotic Augmentation of Thermal Eradication of Staphylococcus epidermidis Biofilm Infections.
4. Protecting Orthopaedic Implants from Infection: Antimicrobial Peptide Mel4 Is Non-Toxic to Bone Cells and Reduces Bacterial Colonisation When Bound to Plasma Ion-Implanted 3D-Printed PAEK Polymers.
5. Inhibition of Clinical MRSA Isolates by Coagulase Negative Staphylococci of Human Origin.
6. New strontium-based coatings show activity against pathogenic bacteria in spine infection.
7. Insights into microorganisms, associated factors, and the oral microbiome in infective endocarditis patients.
8. Prevalence and Resistance Patterns of Urinary Tract Infection in Al-Madinah Al-Munawarah, Saudi Arabia: A Retrospective Study.
9. Static Versus Articulating Spacer: Does Infectious Pathogen Type Affect Treatment Success?
10. Extended Reality Head-Mounted Displays Are Likely to Pose a Significant Risk in Medical Settings While Current Classification Remains as Non-Critical.
11. Isolation and Identification of Chicken-Derived Lactic Acid Bacteria: In Vitro Probiotic Properties and Antagonistic Effects against Salmonella pullorum, Staphylococcus aureus, and Escherichia coli.
12. Role of Staphylococcus aureus's Buoyant Density in the Development of Biofilm Associated Antibiotic Susceptibility.
13. Cell-Free Supernatant from a Strain of Bacillus siamensis Isolated from the Skin Showed a Broad Spectrum of Antimicrobial Activity.
14. Injectable nanoparticle-crosslinked xyloglucan/ε-poly-l-lysine composite hydrogel with hemostatic, antimicrobial, and angiogenic properties for infected wound healing.
15. Chitosan/starch based unoxidized tannic acid modified microparticles for rapid hemostasis with broad spectrum antibacterial activity.
16. An unusual cause of febrile knee pain in children: Septic arthritis of the proximal tibiofibular joint (a case report).
17. The role of Staphylococcus aureus in cystic fibrosis pathogenesis and clinico-microbiological interactions.
18. Evaluation of mixed biofilm production by Candida spp. and Staphylococcus aureus strains co-isolated from cystic fibrosis patients in northwest Algeria.
19. Assessing antibacterial efficacy of a polyhexanide hydrogel versus alginate-based wound dressing in burns.
20. Exploring the pediatric nasopharyngeal bacterial microbiota with culture-based MALDI-TOF mass spectrometry and targeted metagenomic sequencing.
21. Short-term Success in Treatment of an Acute Hematogenous Periprosthetic Hip Joint Infection with Debridement, Antibiotics, and Implant Retention.
22. Orthopedic postoperative infection profile and antibiotic sensitivity of 2038 patients across 24 countries - Call for region and institution specific surgical antimicrobial prophylaxis.
23. Anatomical, pathological, and histological features of experimental respiratory infection of birds by biofilm-forming bacteria Staphylococcus aureus.
24. Delayed infections following polybutylate-coated polyester (Ethibond) suture frontalis suspension surgery for severe blepharoptosis.
25. Combined electrical-electrochemical phenotypic profiling of antibiotic susceptibility of in vitro biofilm models.
26. A C-type lectin (CTL2) mediated both humoral and cellular immunity against bacterial infection in Tribolium castaneum.
27. In situ Photoactivated Antibacterial and Antioxidant Composite Materials to Promote Bone Repair.
28. Postpartum infections and antimicrobial resistance of responsible pathogens in Ukraine: results a multicenter study (2020-2022).
29. Triggered Release of Ampicillin from Metallic Implant Coatings for Combating Periprosthetic Infections.
30. Electroconductive cardiac patch based on bioactive PEDOT:PSS hydrogels.
31. Prophylactic Antibiotic Use for Penetrating Trauma in Prolonged Casualty Care: A Review of the Literature and Current Guidelines.
32. Collaborative Cross mice have diverse phenotypic responses to infection with Methicillin-resistant Staphylococcus aureus USA300.
33. Eliminate all risks: A call to reexamine the link between canine scabies and rheumatic heart disease.
34. A study of antibiotic resistance pattern of clinical bacterial pathogens isolated from patients in a tertiary care hospital.
35. Clinico-Microbiological Correlates of Hospital-Acquired Pneumonia: A Hospital-Based Prospective Cohort Study.
36. Human-Derived collagen hydrogel as an antibiotic vehicle for topical treatment of bacterial biofilms.
37. Exploring the mechanism of Huanglian ointment in alleviating wound healing after anal fistula surgery through metabolomics and proteomics.
38. Single-centre observational study of the safety and efficacy of thoracoscopy under local anaesthesia for the management of thoracic infections.
39. Air dispersal of multidrug-resistant organisms including methicillin-resistant Staphylococcus aureus, carbapenem-resistant Acinetobacter baumannii, and carbapenemase-producing Enterobacterales in general wards: surveillance culture of air grilles.
40. Pyomyositis in the sternocleidomastoid muscle in a previously healthy 36-year-old woman.
41. Bacterial aetiology, antimicrobial susceptibility patterns, and factors associated with urinary tract infection among under-five children at primary health facility, North-Western Tanzania.
42. Puerperal mastitis caused by limited community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA) clones.
43. Respiratory pathogen and clinical features of hospitalized patients in acute exacerbation of chronic obstructive pulmonary disease after COVID 19 pandemic.
44. Effect of 5-aminolevulinic acid-mediated photodynamic therapy against Fusobacterium nucleatum in periodontitis prevention.
45. Evaluation of the accuracy of bacterial genome reconstruction with Oxford Nanopore R10.4.1 long-read-only sequencing.
46. Clinical and anthropometric evolution of individuals with cystic fibrosis during COVID-19 pandemic: A 24-month cohort study.
47. Race and ethnicity as risk factors for colonization and infection with key bacterial pathogens: a scoping review.
48. An unusual case of Brodie's abscess in the humerus of an adult female.
49. Influence of Fiber Diameter of Polycaprolactone Nanofibrous Materials on Biofilm Formation and Retention of Bacterial Cells.
50. WHAT IS THE EPIDEMIOLOGICAL PROFILE OF ACUTE HAND INFECTIONS AT A HOSPITAL IN SAO PAULO?
51. Prevalence and predictors of multidrug-resistant bacteremia in liver cirrhosis.
52. Scabies infestation might predispose surgical site infection: Case report.
53. Retrospective Analysis of Hospital Acquired Infection and Antibiotic Resistance in Coronary Care Unit (CCU), Adult, and Pediatric Cardiology Wards.
54. Perioperative cefazolin prescribing rates following suppression of alerts for non-IgE-mediated penicillin allergies.
55. Nanoarchitectonics of Bactericidal Coatings Based on CaCO(3)-Nanosilver Hybrids.
56. Inborn errors of immunity with susceptibility to S. aureus infections.
57. Innovative Vancomycin-Loaded Hydrogel-Based Systems - New Opportunities for the Antibiotic Therapy.
58. Establishment of a Multiplex Detection Method for Common Bacteria in Blood Based on Human Mannan-Binding Lectin Protein-Conjugated Magnetic Bead Enrichment Combined with Recombinase-Aided PCR Technology.
59. The microbiological profile of necrotising fasciitis at a secondary level hospital in Gauteng.
60. Functional dependence as a contributing factor for patient hand contamination by multi-drug resistant organisms (MDROs) in acute care.
61. Impact of COVID-19 on antimicrobial stewardship activities in Italy: a region-wide assessment.
62. Cutaneous inflammasome driving ASC / gasdermin-D activation and IL-1β-secreting macrophages in severe atopic dermatitis.
63. Driveline Infection in Patients With Left Ventricular Assist Devices Implanted as Destination Therapy.
64. Staphylococcus aureus-specific skin resident memory T cells protect against bacteria colonization but exacerbate atopic dermatitis-like flares in mice.
65. Outcomes Following Different Management of Mycotic Infrarenal Abdominal Aortic Aneurysms.
66. Assessing the Impact of Spraying an Enterococcus faecium-Based Probiotic on Day-Old Broiler Chicks at Hatch on the Incidence of Bacterial Chondronecrosis with Osteomyelitis Lameness Using a Staphylococcus Challenge Model.
67. Impact of Povidone Application to Nares in Addition to Chlorhexidine Bath in Critically Ill Patients on Nosocomial Bacteremia and Central Line Blood Stream Infection.
68. Regional Spondylodiscitis Disparities: Impact on Pathogen Spectrum and Patients.
69. SaLTy: a novel Staphylococcus aureus Lineage Typer.
70. Psoriasis vulgaris of the skin caused a L3-L4 lumbar epidural spinal abscess.
71. Correlation of CD4+ count and viral load with urinary tract infection and antimicrobial resistance pattern of bacterial uropathogens among HIV patients in Wolaita Sodo, South Ethiopia.
72. Investigating the translational value of Periprosthetic Joint Infection (PJI) models to determine the risk and severity of Staphylococcal biofilms.
73. Peroxisome proliferator-activated receptor alpha is essential factor in enhanced macrophage immune function induced by angiotensin converting enzyme.
74. Synthesis and evaluation of a novel vancomycin-infused, biomimetic bone graft using a rat model of spinal implant-associated infection.
75. A novel acid-responsive polymer coating with antibacterial and antifouling properties for the prevention of biofilm-associated infections.
76. The capsular polysaccharide obstructs wall teichoic acid functions in Staphylococcus aureus.
77. Stingless bee honey: Nutritional, physicochemical, phytochemical and antibacterial validation properties against wound bacterial isolates.
78. Lowering the Acquisition of Multi-drug Resistant Organism (MDROs) with Pulsed-xenon (LAMP) Study: a cluster randomized controlled, double-blinded, interventional crossover trial.
79. Antiseptic management of critical wounds: differential bacterial response upon exposure to antiseptics and first insights into antiseptic/phage interactions - experimental studies.
80. Bullet-related bacterial wound infections among injured personnel at emergency site hospitals in Bahir Dar: prevalence, antimicrobial susceptibility and associated factors.
81. Development of a multiplex Loop-Mediated Isothermal Amplification (LAMP) for the diagnosis of bacterial periprosthetic joint infection.
82. IL-24 promotes atopic dermatitis-like inflammation through driving MRSA-induced allergic responses.
83. Antimicrobial coatings based on amine-terminated graphene oxide and Nafion with remarkable thermal resistance.
84. Cervical cancer screening practices in HIV positive females - a missing link in health care delivery in Pakistan.
85. Tissue engineered multifunctional chitosan-modified polypropylene hernia mesh loaded with bioactive phyto-extracts.
86. Keratinocytes present Staphylococcus aureus enterotoxins and promote malignant and non-malignant T cell proliferation in cutaneous T cell lymphoma.
87. Risk factors of periprosthetic joint infection after hemiarthroplasty for displaced femoral neck fracture in the elderly: Analysis of 1619 cases in the multicenter database.
88. Which trial do we need? Gown and glove use versus standard precautions for patients colonised or infected with MRSA or VRE.
89. After Primary Shoulder Arthroplasty Appropriate Vancomycin Antibiotic Prophylaxis Does Not Lead to Increased Infectious Complications When Compared to Cefazolin.
90. Wound colonization with methicillin-resistant Staphylococcus aureus and hypotheses about acquisition routes in rural healthcare settings in Sub-Saharan Africa: Perspective from a Center devoted to the treatment of cutaneous neglected tropical diseases.
91. Long-Term Outcomes Associated With β-Lactam Allergies.
92. Implications of deduplication on the detection rates of multidrug-resistant organism (MDRO) in various specimens: insights from the hospital infection surveillance program.
93. Frequency and mortality rate following antimicrobial-resistant bloodstream infections in tertiary-care hospitals compared with secondary-care hospitals.
94. In Silico Elucidation of Key Drivers of Staphyloccocus aureus-Staphyloccocus epidermidis-Induced Skin Damage in Atopic Dermatitis Lesions.
95. Role of STIMULAN in chronic osteomyelitis-A randomised blinded study on 95 patients comparing 3 antibiotic compositions, bead quality, forming & absorption time.
96. Microbiota and metabolic adaptation shape Staphylococcus aureus virulence and antimicrobial resistance during intestinal colonization.
97. Impact of postoperative skin disinfection with chlorhexidine on bacterial colonisation following shoulder arthroplasty surgery: a controlled randomised study.
98. Vancomycin Flushing Syndrome: A Case Report.
99. Molecular epidemiology and change trend of methicillin-resistant Staphylococcus aureus from invasive infections of a hospital in Hangzhou from 2012 to 2018.
100. Metal-Organic Framework-Based Antimicrobial Touch Surfaces to Prevent Cross-Contamination.
101. Silver and Copper Nanoparticle-Loaded Self-Assembled Pseudo-Peptide Thiourea-Based Organic-Inorganic Hybrid Gel with Antibacterial and Superhydrophobic Properties for Antifouling Surfaces.
102. Biofilm on total joint replacement materials can be reduced through electromagnetic induction heating using a portable device.
103. Assessment of handwashing impact on detection of SARS-CoV-2, Staphylococcus aureus, Escherichia coli on hands in rural and urban settings of Côte d'Ivoire during COVID-19 pandemic.
104. Supervening Abscess Resulting in Streptococcus pyogenes Toxic Shock Syndrome Complicated by a Recent MRSA Infection in an Active Duty Military Member.
105. Septic arthritis of the cervical facet joint: Clinical report and review of the literature.
106. Graphene Oxide-Silver-Coated Sulfonated Polyetheretherketone (Ag/GO-SPEEK): A Broad-Spectrum Antibacterial Artificial Bone Implants.
107. Intrastromal Corneal Ring Implants Associated Bacterial Infections.
108. Optimal antibiotics duration following surgical management of septic olecranon bursitis: a 12-year retrospective analysis.
109. Local delivery of linezolid in the treatment of complex orthopedic bone and joint infections in patients with vancomycin allergy: a case series.
110. Intraosseous Administration of Medications in Total Knee Arthroplasty: An Opportunity for Improved Outcomes and Superior Compliance.
111. Antibiotic Resistance Profile of Staphylococcus aureus in Cancer Patients at Laquintinie Hospital in Douala, Littoral Region, Cameroon.

Guidelines / Prevention Practice

1. Clostridioides Difficile: A Concise Review of Best Practices and Updates.

Breast Surgery

1. Efficacy of perioperative systemic tranexamic acid along with topical hemocoagulase in decreasing axillary drain output in breast cancer patients undergoing axillary lymph node dissection: A randomized, double-blind, placebo-controlled, superiority trial.
2. Mammogram and Pap Smear Uptake Among Women in the HIV Outpatient Study USA, 2010-2021.
3. The Efficacy of Fat Grafting on Treating Post-Mastectomy Pain with and without Breast Reconstruction: A Systematic Review and Meta-Analysis.
4. The persistence of SARS-CoV-2 in tissues and its association with long COVID symptoms: a cross-sectional cohort study in China.
5. Unraveling Drug Delivery from Cyclodextrin Polymer-Coated Breast Implants: Integrating a Unidirectional Diffusion Mathematical Model with COMSOL Simulations.
6. Impact of post-operative infection on revision procedures in breast reconstruction: A marketscan database analysis.
7. Postoperative Prophylactic Antibiotic Use in Breast Reduction Mammoplasty: A Single Centre Retrospective Cohort Study.
8. Conversion from Alloplastic to Autologous Breast Reconstruction: What Are the Inciting Factors?
9. Surgical strategy in lithium-associated hyperparathyroidism: A population-based study.
10. Short- and long-term outcomes after surgical treatment of 5918 patients with splenic flexure colon cancer by extended right colectomy, segmental colectomy and left colectomy: a systematic review and meta-analysis.
11. Use of oxazolidinones (linezolid or tedizolid) for the treatment of breast infections. A case series from a tertiary referral hospital.
12. Precision in Prevention: Tailoring Single-Use Negative Pressure Wound Therapy Utilization Through Artificial Intelligence-Based Surgical Site Complications Risk and Cost Modeling.
13. Complications After Prepectoral Versus Subpectoral Breast Reconstruction in Patients Receiving Postmastectomy Radiation Therapy: A Systematic Review and Meta-Analysis.
14. Impact of the COVID-19 pandemic on breast cancer patient pathways and outcomes in the United Kingdom and the Republic of Ireland - a scoping review.
15. MAMAS (mastopexy-augmentation made applicable and safer): A standardized template of pre-operative marking and step-by-step surgical procedure.
16. Granulomatous mastitis and pectoralis major muscle defect following polyacrylamide hydrogel injection: a case report and literature review.
17. SNHG15-mediated feedback loop interplays with HNRNPA1/SLC7A11/GPX4 pathway to promote gastric cancer progression.
18. Peptide-AIE Nanofibers Functionalized Sutures with Antimicrobial Activity and Subcutaneous Traceability.
19. Optimizing the Pedicled Latissimus Dorsi Myocutaneous Flap in Breast Reconstruction: Lessons Learned from 110 Consecutive Flaps.
20. Outcomes of Implant Exchange and Latissimus Dorsi Flap Replacement After Breast Implant Complications.
21. Aeromonas hydrophila Infection following Leech Therapy for the Treatment of Nipple-Areola Complex Congestion after Breast Reduction: A Case Report.
22. Effects of preoperative inhaled budesonide combined with intravenous dexamethasone on postoperative sore throat in patients who underwent thyroidectomy: A randomized controlled trial.
23. Vitamin D deficiency and chronological hypoplasia with hypomineralisation: a case report.
24. A new type of dual-plane breast augmentation: Redefining parenchyma-muscle interface in high mobile glandular ptotic breast.
25. Pilot robotic mastectomy in Singapore (PRoMiSing I) study: first safety and feasibility prospective cohort trial in South East Asia.
26. Bacterial Colonization on Endoscopic Materials and Surgical Field Without Infections After Transoral Endoscopic Thyroidectomy.
27. Benefits of using a support bra in women undergoing coronary artery bypass graft surgery: A randomized trial.
28. Perceptions of Surgical Drains Among Breast Reconstruction Patients and Health Care Staff: A Qualitative Survey Study.
29. Age Impacts Clinical and Patient Reported Outcomes following Post Mastectomy Breast Reconstruction.

Mupirocin resistance

1. Emergence and spread of a mupirocin-resistant variant of the European epidemic fusidic acid-resistant impetigo clone of Staphylococcus aureus, Belgium, 2013 to 2023.

Competitors

1. A comprehensive synthetic library of poly-N-acetyl glucosamines enabled vaccine against lethal challenges of Staphylococcus aureus.
2. Staphylococcus aureus Infections and Human Intestinal Microbiota.
3. Specific and off-target immune responses following COVID-19 vaccination with ChAdOx1-S and BNT162b2 vaccines-an exploratory sub-study of the BRACE trial.
4. A Unique Combination of Mn(2+) and Aluminum Adjuvant Acted the Synergistic Effect.
5. Correction: Alhasso et al. Development of a Nanoemulgel for the Topical Application of Mupirocin. Pharmaceutics 2023, 15, 2387.
6. Staphylococcus aureus membrane vesicles: an evolving story.
7. PDADMAC/Alginate-Coated Gold Nanorod For Eradication of Staphylococcus Aureus Biofilms.
8. Determination of total phenolics, flavonoids, and testing of antioxidant and antibacterial activities of red ginger (Zingiber officinale var. Rubrum).
9. Quorum-sensing agr system of Staphylococcus aureus primes gene expression for protection from lethal oxidative stress.
10. Vascular Organization: Lessons from Development and Disease.
11. Non-antibiotic antimicrobial agents for chronic rhinosinusitis: a narrative review.
12. High-parameter phenotypic characterization reveals a subset of human Th17 cells that preferentially produce IL-17 against M. tuberculosis antigen.
13. Assessing the stability and sporicidal efficacy of oxidising disinfectants.
14. Microalgae-made human vaccines and therapeutics: A decade of advances.
15. Distinct T cell signatures are associated with Staphylococcus aureus skin infection in pediatric atopic dermatitis.
16. LL37 Microspheres Loaded on Activated Carbon-chitosan Hydrogel: Anti-bacterial and Anti-toxin Wound Dressing for Chronic Wound Infections.
17. Emerging challenges in antimicrobial resistance: implications for pathogenic microorganisms, novel antibiotics, and their impact on sustainability.