**XF-73 Nasal Literature Review**

**Period: 24/12/2024 – 24/01/2025**

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Scientific Highlights

1. Screening for nasal carriage of Staphylococcus (﻿S.) aureus reduces the risk of S. aureus peritonitis in patients on peritoneal dialysis (PD).
2. Swab Testing to Optimize Pneumonia treatment with empiric Vancomycin (STOP-Vanc): study protocol for a randomized controlled trial.

SA Decolonisation

1. Response to the letter to the editor regarding "The efficacy of an alcohol-based nasal antiseptic versus mupirocin or an iodophor for preventing SSIs using a meta-analysis".
2. Letter to the editor regarding the article: The efficacy of an alcohol-based nasal antiseptic versus mupirocin or iodophor for preventing surgical site infections: A meta-analysis.
3. Detection of the methicillin-resistant Staphylococcus aureus gene encoding mecA in nasal swabs of cats in Surabaya, Indonesia.
4. Risk Identification and Mitigation of Skin and Soft Tissue Infections in Military Training Environments.
5. Impact of stewardship pharmacist driven MRSA nasal surveillance and de-escalation of anti-MRSA therapy (STEW PHARM MRSA NASAL SURVEILLANCE).
6. Fabrication of novel pullulan/carboxymethyl chitosan-based edible film incorporated with ultrasonically equipped aqueous zein/turmeric essential oil nanoemulsion for effective preservation of mango fruits.
7. Microbiological Profiles and Patterns of Resistance in Patients With Sinus Infections After Endoscopic Sinus Surgery.
8. Longitudinal prevalence and co-carriage of pathogens associated with nursing home acquired pneumonia in three long-term care facilities.
9. Sex-dependent gastrointestinal colonization resistance to MRSA is microbiota and Th17 dependent.
10. Effect of Skin-to-Skin Care on the Day of Birth on Skin Colonization in Preterm Infants: A Pre- and Post-Implementation Study.
11. Evaluation of a Pharmacist-Led Methicillin-Resistant Staphylococcus aureus Nasal PCR Testing Protocol.
12. Asymptomatic carriage and molecular characterization of Staphylococcus aureus in pre-clinical and clinical medical students.
13. The mutational landscape of Staphylococcus aureus during colonisation.
14. Nasal microbiota predictors for methicillin resistant Staphylococcus colonization in critically ill children.
15. Listeria monocytogenes and Staphylococcus aureus coinfection in a patient with multiple myeloma: Case report.
16. Response to Response-Letter to Editor. Nasal Decolonization in Congregate Settings: Reducing Infection Spread, Cutting Costs and Improving Operational Readiness.
17. Detection of multidrug-resistant methicillin-resistant Staphylococcus aureus from healthy black Bengal goat in Bangladesh.
18. Dual Viral Infections and Para-Pneumonic Effusion in a Pediatric Patient: A Case of Respiratory Syncytial Virus and COVID-19 Complication.
19. Correction To: Nasal Decolonization in Congregant Settings: Reducing Infection Spread, Cutting Costs, and Improving Operational Readiness.

SA / MRSA Colonisation / Infection

1. Cervical spine infection arising from chronic paronychia: A case report and review of literature.
2. Proteomic study of the inhibitory effects of tannic acid on MRSA biofilm.
3. Influence of the combination of mineral water and ciprofloxacin on the interaction form of individual representatives of the upper respiratory tract mucosa microbiota in vitro.
4. Deciphering pathogenicity and virulence of the first Staphylococcus debuckii isolate from diabetic foot osteomyelitis.
5. Digital Papillary Adenocarcinoma at the Site of 5 Years of Recurrent Paronychia: Case Report and Literature Review.
6. Epidemiological Profile of Bacterial Infections in Burn Patients Over a Five-Year Period.
7. Electrophoretic Deposition of Gentamicin Into Titania Nanotubes Prevents Evidence of Infection in a Mouse Model of Periprosthetic Joint Infection.
8. [Healthcare-Associated Infections in Pediatric Patients: A Decade of Experience in an Intensive Care Unit].
9. Impact of Multidrug-Resistant Bacterial Colonization on Clinical Characteristics, Antibiotic Treatment, and Clinical Outcomes of Hospital-Acquired Pneumonia.
10. Prevalence and Antimicrobial Susceptibility of Wound Pathogens in a Tertiary Care Hospital in Kashmir: A Cross-sectional Study.
11. Mechanisms of Staphylococcus aureus Antibiotics Resistance Revealed by Adaptive Laboratory Evolution.
12. Construction and validation of a nomogram predictive model for assessing the risk of surgical site infections following posterior lumbar fusion surgery.
13. Presence of multidrug-resistant bacteria on ready-to-use laryngoscope blades and handles: a cross-sectional study.
14. The anti-MRSA resource: a comprehensive archive of anti-MRSA peptides and essential oils.
15. [Influencing factors analysis and prediction model establishment of toe-amputation in patients with diabetic foot].
16. Characteristics, risk factors and clinical impact of penicillin and other antibiotic allergies in adults in the UK General Practice: a population-based cohort study.
17. Nasopharyngeal carriage of Staphylococcus aureus in a rural population, Sierra Leone.
18. Evolution of community-associated MRSA: a 20-year genomic and epidemiological study in Region Örebro County, Sweden.
19. Antibacterial properties and biological activity of 3D-printed titanium alloy implants with a near-infrared photoresponsive surface.
20. Minimally invasive management of cervical spondylodiscitis. A multicenter experience.
21. Early Removal of the Abdominal Patch is Superior to Late Removal in Children With Congenital Diaphragmatic Hernia.
22. Multiple introductions of NRCS-A Staphylococcus capitis to the neonatal intensive care unit drive neonatal bloodstream infections: a case-control and environmental genomic survey.
23. The Microbiology, Management and Outcomes of Native Joint Septic Arthritis of the Hand in Adults of Southeast Queensland.
24. Antibiotic candidates for Gram-positive bacterial infections induce multidrug resistance.
25. Elimination of Methicillin-Resistant Staphylococcus aureus from Mammary Glands of Dairy Cows by an Additional Antibiotic Treatment Prior to Dry Cow Treatment.
26. Facultatively Anaerobic Staphylococci Enable Anaerobic Cutibacterium Species to Grow and Form Biofilms Under Aerobic Conditions.
27. Advancements and Challenges in the Management of Prosthetic Valve Endocarditis: A Review.
28. Development and Prevention of Biofilm on Cochlear Implants: A Systematic Review.
29. Advancing treatment strategies against MRSA: unveiling the potency of tubuloside A in targeting sortase A and mitigating pathogenicity.
30. Exploring in vitro efficacy of rCHAPk with antibiotic combinations, and promising findings of its therapeutic potential for clinical-originated MRSA wound infection.
31. Severe palmoplantar keratoderma: a cutaneous complication from sub-optimally controlled type 2 diabetes.
32. A generalisable risk factor: Socioeconomic status and multi-resistant organism colonisation.
33. Study on Time Distribution and Pathogenic Bacteria of Infection After Auricular Reconstruction With Tissue Expansion for Microtia.
34. Antimicrobial Silicon Rubber Crosslinked with Bornyl-Siloxane.
35. Novel antibiotics against Staphylococcus aureus without detectable resistance by targeting proton motive force and FtsH.
36. Temporal Relationships Between Staphylococcus aureus Colonization, Filaggrin Expression, and Pediatric Atopic Dermatitis-Correspondence.
37. A prospective study to evaluate high dose daptomycin pharmacokinetics and pharmacodynamics in Staphylococcus spp. infective endocarditis.
38. Nosocomial Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, and Staphylococcus aureus: Sensitivity to Chlorhexidine-Based Biocides and Prevalence of Efflux Pump Genes.
39. Current Strategies in Developing Antibacterial Surfaces for Joint Arthroplasty Implant Applications.
40. Covalent Grafting of Quaternary Ammonium Salt-Containing Polyurethane onto Silicone Substrates to Enhance Bacterial Contact-Killing Ability.
41. Peripheral Vascular Emboli in Patients with Infective Endocarditis are Common.
42. Intra-articular procedures and associated septic arthritis: A mini-review.
43. Pathogenic Colonization: Defining the Role of Staphylococcus aureus in Atopic Dermatitis.
44. Immune Checkpoint Molecules as Biomarkers of Staphylococcus aureus Bone Infection and Clinical Outcome.
45. Rare Coexistence: Giant Cell Tumor Recurrence and Infection in the Proximal Tibia - A Case Report.
46. An uncommon cause of osteomyelitis: Serratia fonticola A rare pathogen in human infections.
47. Roles of oolong tea extracts in the protection against Staphylococcus aureus infection in Caenorhabditis elegans.
48. Factors associated with multidrug-resistant organism (MDRO) mortality: an analysis from the national surveillance of multidrug-resistant organism, 2018-2022.
49. The endothelium at the interface between tissues and Staphylococcus aureus in the bloodstream.
50. Preparation of nano(micro)particles from Cotinus coggygria Scop. extracts and investigation of their antimicrobial effects in vivo Caenorhabditis elegans model.
51. Antimicrobial and Cytotoxic Potential of Endophytic Aspergillus versicolor Isolate from the Medicinal Plant Plectranthus amboinicus.
52. Not All Antiseptic Solutions Are Equivalent in Removing Biofilm: A Comparison Across Different Orthopaedic Surfaces.
53. Bacterial burden and drug-resistant bacteria in healthcare workers' mobile phones: a study in Puerto Rican outpatient clinics.
54. Prevalence, antimicrobial susceptibility profiles and resistant gene identification of bovine subclinical mastitis pathogens in Bangladesh.
55. The Relationship Between the Positive Drain Tip Cultures and the Incidence of Surgical Site Infection After Pediatric Cardiovascular Surgery.
56. Bacteria in hypertrophic scars promote scar formation through HSBP1-mediated autophagy.
57. Corynebacterium minutissimum as a Rare Cause of Tibial Osteomyelitis: A Case Report and Literature Review.
58. An Unusual Case of Giant Polymicrobial Shoulder Abscess Developing Two Decades After an Insect Bite: The Role of Chronic Intermittent Swelling as a Predisposing Factor.
59. The economic burden of post-endoscopic retrograde cholangiopancreatography (ERCP) procedure infections in Italy.
60. Differences of microbial growth and biofilm formation among periprosthetic joint infection-causing species: an animal study.
61. Clinical-Microbial Synergy: Mapping Microbiological Profiles to Clinical Attributes in Skin and Soft Tissue Infections.
62. The incidence and risk factor for febrile urinary tract infection after robot-assisted laparoscopic radical cystectomy in bladder cancer patients.
63. Antibiotic Resistance Trends in ESKAPE Pathogens Isolated at a Health Practice and Research Hospital: A Five-Year Retrospective Study.
64. Who is at risk for tPA/DNase treatment failure in empyema?-protocol to identify key predictors for early surgical intervention from a retrospective study.
65. Never mind the bug: no differences in infection-free survival after periprosthetic joint infections with Staphylococcus aureus, Coagulase-negative Staphylococcus, or Streptococcus.
66. Biofilm morphology and antibiotic susceptibility of methicillin-resistant Staphylococcus aureus (MRSA) on poly-D,L-lactide-co-poly(ethylene glycol) (PDLLA-PEG) coated titanium.
67. Binary Doping of Strontium-Magnesium to Bioactive Glasses to Enhance Antibacterial and Osteogenic Effects.
68. Characteristics of nursing homes with high rates of invasive methicillin-resistant Staphylococcus aureus infections.
69. Multi-omic signatures of host response associated with presence, type, and outcome of enterococcal bacteremia.
70. Clinical characteristics of acute epiphyseal osteomyelitis and acute metaphyseal osteomyelitis of long bones in children.
71. Genomic detection of Panton-Valentine Leucocidins encoding genes, virulence factors and distribution of antiseptic resistance determinants among Methicillin-resistant S. aureus isolates from patients attending regional referral hospitals in Tanzania.
72. TSST-1 promotes colonization of Staphylococcus aureus within the vaginal tract by activation of CD8(+) T cells.
73. A rapid literature review of the impact of penicillin allergy on antibiotic resistance.
74. Synergistic antibacterial drug elution from UHMWPE for load-bearing implants.
75. MRSA septic arthritis of the pubic symphysis post vaginal delivery: A case report and literature review.
76. Red and blue LED light increases the survival rate of random skin flaps in rats after MRSA infection.
77. Incidence and Presentation of Periprosthetic Joint Infection After Primary Metacarpophalangeal and Proximal Interphalangeal Arthroplasty.
78. Pseudomonal Vasculopathy of the Central Nervous System in a 2-Year-Old Female With an IRAK4-Related Immunodeficiency.
79. Metagenomic next-generation sequencing for the clinical identification of spinal infection-associated pathogens.
80. Gallic acid-grafted chitosan photothermal hydrogels functionalized with mineralized copper-sericin nanoparticles for MRSA-infected wound management.
81. Umbrella review of economic evaluations of interventions for the prevention and management of healthcare-associated infections in adult hospital patients.

Guidelines / Prevention Practice

1. Surveillance for surgical site infections developed during hospital stay & after discharge: A multicentric study.
2. Appropriate use of vancomycin in a cardiac surgical unit.
3. Blood Culture Use in Medical and Surgical Intensive Care Units and Wards.

Breast Surgery

1. Pyoderma Gangrenosum: A Nightmare for Breast Surgery-Two Case Reports.
2. Unveiling Inequities: Racial Disparities in Risk-Reducing Mastectomy for Breast Cancer Prevention.
3. Time to reconsider the use of synthetic mesh in immediate prepectoral implant-based breast reconstruction: Impact of their use on short-term outcomes.
4. iMeta Conference 2024: Building an innovative scientific research ecosystem for microbiome and One Health.
5. Medially Based "Abdominal Rotation Advancement Flap": A Promising Technique for Mastectomy Defect Reconstruction in "High-Risk Patients" Awaiting Adjuvant Radiotherapy.
6. A comparison of acellular dermal matrices (ADM) efficacy and complication profile in women undergoing implant-based breast reconstruction: a systematic review and network meta-analysis.
7. A rare case of hydatid cyst presenting as a breast cancer. A case report.
8. Factors associated with morbidity of a totally implantable venous access device in patients with breast cancer.
9. [Endoscopic surgical treatment for primary hyperthyroidism with thyroid enlargement-10 years' experience at a single center].
10. Author Correction: π-HuB: the proteomic navigator of the human body.
11. The Age-Old Question in Nipple-Sparing Mastectomy: Is Older Age a Contraindication?
12. Correlation analysis of DLG5 and PD-L1 expression in triple-negative breast cancer.
13. An approach to COVID‑19 and oncology: From impact, staging and management to vaccine outcomes in cancer patients: A systematic review and meta‑analysis.
14. Unveiling the Hidden Burden: A Systematic Review on the Prevalence and Clinical Implications of Calcified Brain Metastases.
15. Nomogram-based Approach for Predicting Complication Risks Following Prepectoral Direct-to-Implant Breast Reconstruction.
16. Size Matters: Predicting Surgical Site Infection After Whole Breast Radiotherapy in the Era of Hypofractionation.
17. Delayed two stage breast reconstruction with acellular dermal matrix.
18. Doing Less Later: Seniorization of General Surgery Resident Operative Experience in the Entrustable Professional Activities at Veterans Affairs Hospitals.
19. Obstetric outcomes in breastfeeding women in the first hour of delivery before and during the COVID-19 pandemic.
20. Silicone Breast Implant Rupture Triggered by Infection Leading to Skin Ulceration: A Case Report.
21. Treatment Considerations for Pyoderma Gangrenosum After Reduction Mammoplasty in an Unsuspecting Patient Demographic.
22. Innovations in Nipple-areolar Complex Reconstruction: Evaluation of a New Prosthesis.
23. A Comparative Study of One-Stage Pre-pectoral Implant Breast Reconstruction With and Without Mesh.
24. Incidence of seroma and postoperative complications after breast surgery before and during the Covid-19 pandemic: results from a retrospective multicenter analysis.
25. Is Topical Tranexamic Acid Effective in Reducing Hematoma and Seroma in Breast Surgery? A Systematic Review and Meta-analysis.
26. The Incidence of Early Postoperative Complications Following Modified Radical Mastectomy in Breast Cancer Patients.
27. Simultaneous Symmetrizing Surgery on the Contralateral Breast in Unilateral Autologous Breast Reconstruction is Cost-Effective.
28. A comparative study between central quadrantectomy and nipple resection with areola preservation Versus Grisotti flap mammoplasty in central breast lesions extending to nipple: a randomized clinical trial.
29. CD36 enrichment in HER2-positive mesenchymal stem cells drives therapy refractoriness in breast cancer.
30. Red Breast Syndrome-Where Has It Gone?: A Systematic Review of Red Breast Syndrome Incidence Overtime.
31. Reduction Mammaplasty: Closed Suction Drains Do Not Reduce Hematoma or Seroma But Increase Infection Risk.
32. Comparison of outcomes following prepectoral and subpectoral implants for breast reconstruction in patients with breast cancer.
33. Pulse Irrigation Reduces Rate of Postoperative Hematoma Following Breast Reduction.
34. Concentration of Povidone-Iodine Pocket Irrigation in Implant-Based Breast Surgery: A Scoping Review.

Mupirocin resistance

1. Enhancing transdermal delivery of chrysomycin A for the treatment of cutaneous melanoma and MRSA infections using Skin-Penetrating Peptide-Functionalized deformable liposomes.
2. Identification of an antibiotic from an HTS targeting EF-Tu:tRNA interaction: a prospective topical treatment for MRSA skin infections.
3. Corrigendum to "Targeted mupirocin-based decolonization for Staphylococcus aureus carriers and the subsequent risk of mupirocin resistance in haemodialysis patients - a longitudinal study over 20 years" [J Hosp Infect 135 (2023) 55-58].
4. Betaine combined with traditional Chinese medicine ointment to treat skin wounds in microbially infected diabetic mice.

Competitors

1. In vitro antibacterial and antibiofilm effects of mupirocin spray against Staphylococcus pseudintermedius.
2. Bacillus safensis from Sauerkraut Alleviates Acute Lung Injury Induced by Methicillin-Resistant Staphylococcus aureus through the Regulation of M2 Macrophage Polarization via Its Metabolite Esculin.
3. Single versus double stapled anastomosis in natural orifice specimen extraction (NOSE) laparoscopic anterior resection.
4. Effect of Antimicrobial Wipes on Hospital-Associated Bacterial and Fungal Strains.
5. Development of a Stringent Ex Vivo-Burned Porcine Skin Wound Model to Screen Topical Antimicrobial Agents.
6. Long, Synthetic Staphylococcus aureus Type 8 Capsular Oligosaccharides Reveal Structural Epitopes for Effective Immune Recognition.
7. Vaccine Specifically for Immunocompromised Individuals against Superbugs.
8. Multifunctional electrospun nanofiber films of polyacrylonitrile and polyvinyl alcohol incorporating rhamnose and therapeutic agents for enhanced healing of infected burn wounds.
9. Probiotic viability in the gastrointestinal tract in a randomised placebo controlled trial: combining molecular biology and novel cultivation techniques.
10. A novel broad-spectrum bacteriophage cocktail against methicillin-resistant Staphylococcus aureus: Isolation, characterization, and therapeutic potential in a mastitis mouse model.
11. Transient comparison of techniques to counter multi-drug resistant bacteria: prime modules in curation of bacterial infections.
12. Vertebral osteomyelitis in patients with infective endocarditis: prevalence, risk factors and mortality.
13. Potent human antibodies against SpA5 identified by high-throughput single-cell sequencing of phase I clinical volunteers' B cells.
14. Targeting murine metastatic cancers with cholera toxin A1-adjuvanted peptide vaccines.
15. Global Gac/Rsm regulatory system activates the biosynthesis of mupirocin by controlling the MupR/I quorum sensing system in Pseudomonas sp. NCIMB 10586.
16. Wall teichoic acid glycosylation of bovine-associated Staphylococcus aureus strains.