**M3 Literature Review**

**Period: 08/07/2025 – 08/08/2025**

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Scientific Highlights:

1. Budget Impact Analysis of Fecal Microbiota Spores, Live-brpk (Formerly SER-109) for Recurrent Clostridioides difficile Infection in the United States.
2. Oligomerization of the Clostridioides difficile Transferase B Component Proceeds through a Stepwise Mechanism.
3. Optimizing Prevention of Recurrent Urinary Tract Infections in Older Patients with Frailty.
4. Impact of the COVID-19 Pandemic on Clostridioides difficile Infection Rates in a Tertiary Hospital: A Retrospective Comparative Study.
5. Decreased Antimicrobial Resistance Gene Richness Following Fecal Microbiota, Live-jslm (REBYOTA®) Administration: Post Hoc Analysis of PUNCH CD3.
6. Oligomerization of the Clostridioides difficile transferase B component proceeds through a stepwise mechanism.
7. Exploring the effects of faecal microbiota transplantation on cognitive function: A review of clinical trials.
8. Clostridioides difficile co-infection worsens prognosis in inflammatory bowel disease in patients with cytomegalovirus colitis.
9. The host genes influencing Clostridioides difficile infection and the potential role of intestinal Lactobacillus acidophilus: a Mendelian randomization and animal model study.
10. Biofilm Assay for Clostridioides difficile with Applications for Drug Discovery.
11. The analysis of the epidemic status and risk factors associated with different genotypes Clostridioides difficile mixed infection.
12. Risk Factors for Recurrence and In-Hospital Mortality in Patients with Clostridioides difficile: A Nationwide Study.
13. Effect of Pefloxacin on Clostridioides difficile R20291 Persister Cells Formation.
14. Your Patella Dislocated: Will It Happen Again? Key Magnetic Resonance Imaging Differences Between Patients With Multiple Patellar Dislocations and Patients With a One-Time Patellar Dislocation.
15. Baicalein and Berberine Inhibit the Growth and Virulence of Clostridioides difficile.
16. Minimum Inhibitory Concentration Increase in Clostridioides difficile Isolates from Patients with Recurrence: Results from a Retrospective Single-Centre Cohort Study.
17. Comparability of gastrointestinal microbiome and bile acid profiles in patients with first or multiply recurrent Clostridioides difficile infection.
18. Effectiveness and Safety of Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection in Immunocompromised Patients.
19. Analysis of clinical characteristics and risk factors of recurrent Clostridioides difficile infection in children.
20. Clostridioides difficile toxin A and toxin B inhibit toxin-specific adaptive immune responses through glucosyltransferase-dependent activity.
21. Proton Pump Inhibitor Use and Risk of Clostridioides difficile Infection: An Umbrella Review of 11 Meta-Analyses.
22. Personalized Clostridioides difficile colonization risk prediction and probiotic therapy assessment in the human gut.
23. Trends and Efficacy in Clostridioides difficile Infection Management at a Polish Clinical Hospital.

Clostridioides difficile/ Clostridium difficile

1. Prevention of Clostridium Difficile Infection Among Hospitalized Elderly Patients Using Torani (Fermented Rice Water) and Xylitol Mixture Drink: The Study Protocol of an Open-Label Randomized Controlled Trial.
2. Impact of an Enhanced Disinfection Protocol on the Incidence of Clostridioides difficile Infections and Antibiotic Consumption in a Hospital Setting: A Retrospective Intervention Study.
3. Global Burden, Trends, and Inequalities of Clostridioides difficile Infections from 1990 to 2021 and Projections to 2040: A Systematic Analysis.
4. Clostridioides difficile infection in Patients Undergoing Acid-Suppressive Treatment: A Large Cohort Study with Propensity Score Matching.

Fidaxomicin & Clostridium difficile

1. Response to commentary on 'Alteration of gut microbial composition associated with the therapeutic efficacy of fecal microbiota transplantation in Clostridium difficile infection'.
2. Straining to define a healthy microbiome.
3. Dietary iron attenuates Clostridioides difficile infection via modulation of intestinal immune response and gut microbiota.
4. Correction to: Clostridioides difficile: Treating Sustained Antibiotic Responders With Fecal Microbiota Transplantation Does Not Improve Efficacy.

Clostridioides difficile vaccine

1. Age-targeted vaccination for reducing Clostridioides difficile infection in England: a coupled mathematical-economic modelling analysis.
2. Moving from intervention management to disease management for Clostridioides difficile infection: an economic evaluation exploring the impact of a systems approach to health technology assessment.
3. Glycan Substructure Mining Tool: An Updated and Convenient Method Focused on Gut and Pathogenic Microbiota for Glycan Research.
4. Molecular characterization of Clostridioides difficile isolated from older adults during prospective population-based active surveillance at nine hospitals in Tokyo, Japan, 2018-2020.
5. T cell epitope mapping reveals immunodominance of evolutionarily conserved regions within SARS-CoV-2 proteome.

Vancomycin & CDI

1. Griseolutein T from Streptomyces seoulensis, newly identified via combined-culture with Tsukamurella pulmonis, as an efficacious therapeutic agent against multidrug-resistant bacteria.
2. Phenotypic and genotypic antimicrobial resistance profiles of clinical Clostridioides difficile isolates collected from private and public health settings in South Africa.
3. Lantibiotic-producing bacteria impact microbiome resilience and colonization resistance.
4. Global dissemination of npmA mediated pan-aminoglycoside resistance via a mobile genetic element in Gram-positive bacteria.
5. Let's doff: a gown conservation strategy for multidrug-resistant organism colonization during the COVID-19 pandemic and beyond.
6. The Rare Co-occurrence of Clostridioides difficile Infection and Pseudomonas Meningitis in an Infant: A Case Report.
7. Effectiveness and safety of oral vancomycin in non-primary sclerosing cholangitis paediatric inflammatory bowel disease.
8. Transition from aspirin-related upper to Clostridioides difficile-induced lower gastrointestinal bleeding.

CDI

FMT/ Fecal Microbiota Transplant

1. Response to commentary on 'Alteration of gut microbial composition associated with the therapeutic efficacy of fecal microbiota transplantation in Clostridium difficile infection'.
2. Straining to define a healthy microbiome.
3. Dietary iron attenuates Clostridioides difficile infection via modulation of intestinal immune response and gut microbiota.
4. Correction to: Clostridioides difficile: Treating Sustained Antibiotic Responders With Fecal Microbiota Transplantation Does Not Improve Efficacy.

Competitors

1. Exploring β-lactam interactions with DacB1: unraveling optimal therapies for combating drug-resistant Mycobacterium tuberculosis.
2. Breaking new ground in ductal carcinoma in situ management: the promise of intratumoral messenger ribonucleic acid-2752 and pembrolizumab.
3. Zinc(II), copper(II) and silver(I) salicylate-metronidazole complexes as novel antimicrobial agents.
4. Efficacy and safety of intravenous induction and subcutaneous maintenance therapy with guselkumab for patients with Crohn's disease (GALAXI-2 and GALAXI-3): 48-week results from two phase 3, randomised, placebo and active comparator-controlled, double-blind, triple-dummy trials.
5. Anti-TL1A antibody, afimkibart, in moderately-to-severely active ulcerative colitis (TUSCANY-2): a multicentre, double-blind, treat-through, multi-dose, randomised, placebo-controlled, phase 2b trial.
6. Metabolic syndrome as a modifiable risk factor for complications after epilepsy surgery.
7. Association for Bariatric Endoscopy systematic review and meta-analysis assessing the American Society for Gastrointestinal Endoscopy preservation and incorporation of valuable endoscopic innovations thresholds for transoral outlet reduction.
8. Preclinical Study of Pharmacokinetic/Pharmacodynamic Analysis of Tebipenem Using Monte Carlo Simulation for Extended-Spectrum β-Lactamase-Producing Bacterial Urinary Tract Infections in Japanese Patients According to Renal Function.
9. A human milk oligosaccharide alters the microbiome, circulating hormones, and metabolites in a randomized controlled trial of older adults.

CDAD

1. Beyond pregnancy in systemic autoimmune diseases: a focus on postpartum experience from a referral center.
2. Infectious Complications in Patients Receiving Superselective Intra-Arterial Chemoradiotherapy for Oral Squamous Cell Carcinoma.
3. Phage PL-1 endolysin and osmotic stress as tools to enhance heterologous protein display in lactic acid bacteria platforms.
4. Comparison of Clostridioides difficile Infection Incidence in a General and a Geriatric Hospital Prior to and During the COVID-19 Pandemic.
5. Proton Pump Inhibitor Use Following Esophageal Variceal Ligation and Its Impact on Clinical Outcomes: Real-World Data from the TriNetX Global Collaborative Network.
6. Appropriate Use of Proton Pump Inhibitors in General Out Patient Department of a Tertiary Care Center of Kathmandu Valley: An Observational Study.
7. Miniature bioreactor arrays for modeling functional and structural dysbiosis in inflammatory bowel disease.
8. Association between preoperative proton pump inhibitor use and postoperative infectious and renal complications following major elective surgery.
9. Clinical characteristics and impact of Clostridium difficile infection during treatment of rifampicin-susceptible pulmonary tuberculosis.
10. Prevalence of major diseases in common marmosets (Callithrix jacchus) at the Central Institute for Medicine and Life Science: a retrospective study.
11. Discovery of a Widespread Polyamine-Low-Molecular-Weight Thiol Hybrid Pathway in Clostridioides difficile.
12. Association of antimicrobial consumption with Clostridioides difficile incidence across the departments of an academic medical centre.
13. Neutropenic Fever Secondary to Concurrent Clostridioides difficile Infection and Neutropenic Enterocolitis.
14. Progress and gaps in antimicrobial resistance research within One Health sectors in China: a systematic analysis.
15. The role of gastrointestinal PCR in inflammatory bowel disease flares: A double-edged sword or a diagnostic breakthrough?
16. Differential modulation of post-antibiotic colonization resistance to Clostridioides difficile by two probiotic Lactobacillus strains.
17. In-depth characterization of accessory gene regulator loci and associated virulence factors in tcdA(+)B(+) Clostridioides difficile isolates.
18. Time-course detoxification of environmental metallic nanoparticles in human lung cells (A549).
19. Liquid biopsy based on whole blood transcriptome and artificial intelligence for the prediction of coronary artery calcification: a pilot study.
20. Impact of COVID-19 pandemic on toxinogenic Clostridioides difficile infections and correlation with multidrug-resistant bacterial infections.
21. Pancreaticocolonic fistulae: a rare cause of profound diarrhoea.
22. Non-Clostridium difficile Bacterial Infection in an Acute Flare of Crohn's Disease: A Case Report and Literature Review.
23. Extraintestinal Manifestations of Clostridioides difficile Infections: An Overview.
24. Impact of Biologics and Proton Pump Inhibitors on Gastrointestinal Infection Risk in Inflammatory Bowel Disease Patients: A Retrospective Analysis of Pathogen-Specific Outcomes and Treatment Interactions.
25. Catheter-Associated Urinary Tract Infection, Central Line-Associated Bloodstream Infection, and Clostridioides difficile Infection-An Overview.
26. Pharmacodynamics, pharmacokinetics, interactions with other drugs, toxicity and clinical effectiveness of proton pump inhibitors.

CMC

Guidelines

1. Evidence-Based Clinical Practice Guidelines for Patients With Lumbar Disc Herniation With Radiculopathy in South Korea.
2. Acute Inflammatory Ascites Complicating Clostridium difficile Colitis.
3. Incidence and Outcomes of Neutropenic Enterocolitis Post-stem Cell Transplant for Hematological Malignancies: A Retrospective Study in Australia.
4. Evaluation of three commercial rapid immunoassays for the diagnosis of Clostridioides difficile infection.
5. Impact of Adherence With In-Patient Prospective Audit and Feedback Recommendations on Patient and Economic Outcomes.
6. Extended Antibiotic Prophylaxis in Implant-based Breast Reconstruction: A Systematic Review and Meta-analysis.
7. Comparing the mortality of patients with sepsis using empirical piperacillin/tazobactam and cefepime: analysis of the MIMIC-IV database.
8. Dengue rapid antigen tests enable prompt outbreak detection and a rapid public health response in the remote Torres Strait, Australia.
9. Enhancing notification-driven linkage to care for people living with hepatitis C in Queensland: system constraints and solutions.
10. Rifaximin resistance in Clostridioides difficile is associated with specific rpoB alleles and multilocus sequence typing (MLST) clades.
11. Analysis and Impact of Infection Prevention Procedures in Long-Term Care Facilities.
12. Phase II trial of intravenous human dental pulp stem cell therapy for Huntington's disease: a randomized, double-blind, placebo-controlled study.

Non-toxigenic C. difficile

1. [Screening and phenotypic characterization of Nontoxigenic Clostridioides difficile for intervention in C. difficile infection].
2. Multiple cross displacement amplification (MCDA) for rapid detection of toxigenic Clostridioides difficile as a potential point-of-care testing.

MGB

Other news of possible interest