**M3 Literature Review**

**Period: 08/11/2024 – 08/12/2024**

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Scientific Highlights:

1. Superiority of Frailty Over Age in Predicting Outcomes Among Clostridium Difficile Patients: Evidence from National Data.
2. Gangrenous cholecystitis due to rare actinomyces odontolyticus infection in patient with pancreatic adenocarcinoma: A case report.
3. Distribution of Clostridioides difficile ribotypes and sequence types across humans, animals and food in thirteen European countries.
4. Bioengineered Probiotics for Clostridioides difficile Infection: An Overview of the Challenges and Potential for This New Treatment Approach.
5. Fecal Microbiota Transplantation: Indications, Methods, and Challenges.
6. Oral Capsule FMT Combined With Bezlotoxumab Is a Successful Rescue Protocol Following Failure of FMT Alone in the Treatment of Recurrent C. difficile Infection.
7. Protection against Clostridioides difficile disease by a naturally avirulent strain.
8. Patient Satisfaction Scale Following a Laxative for Antibiotic Washout Prior to Oral Microbiome Therapy.
9. IL-33 protects from recurrent C. difficile infection by restoration of humoral immunity.
10. [Evaluation of the management of Clostridioides difficile infection as a risk factor for recurrence. A retrospective observational study].

Clostridioides difficile/ Clostridium difficile

1. A Critical Review of Postbiotics as Promising Novel Therapeutic Agents for Clostridial Infections.
2. Clostridioides difficile infection increases in-hospital mortality, length of stay, and hospital cost but not 30-day mortality in cirrhotic patients.
3. Antimicrobial Combinations as Novel Indicators for Clostridioides difficile infection development: Population-Based, Nested Case-Controlled Study in Japan-The Shizuoka Kokuho Database Study.
4. Complete genome sequences of toxigenic Clostridioides difficile isolated from Australian feral horses.
5. Meta-analysis of predictors of healthcare-associated Clostridioides difficile infection.
6. Impacts of perR on oxygen sensitivity, gene expression, and murine infection in Clostridioides difficile 630Δ erm.
7. The impact of the COVID-19 pandemic on hospital-acquired infections and multi-drug resistant organisms, in comparison to seasonal influenza.
8. Outcomes of adjunctive eravacycline for severe and fulminant Clostridioides difficile infection.
9. Dual RNA-seq study of the dynamics of coding and non-coding RNA expression during Clostridioides difficile infection in a mouse model.
10. Early Economic Modeling to Inform a Target Product Profile: A Case Study of a Novel Rapid Test for Clostridioides difficile Infection.

Fidaxomicin & Clostridium difficile

1. Knowledge and perceptions of South African blood donors towards biobanking and stool donation.
2. Microbiome impact of ibezapolstat and other Clostridioides difficile infection relevant antibiotics using humanized mice.
3. Succinate-producing microbiota drives tuft cell hyperplasia to protect against Clostridioides difficile.

Clostridioides difficile vaccine

1. T cell epitope mapping reveals immunodominance of evolutionarily conserved regions within SARS-CoV-2 proteome.
2. Never waste a measles outbreak.
3. Measles secondary vaccine failure in a childcare setting: an outbreak report.
4. Costs and Outcomes of Clostridioides difficile Infections in Germany: A Retrospective Health Claims Data Analysis.

Vancomycin & CDI

1. Transmission of MRSA, ESBL E. coli, and C. difficile within a tertiary care hospital and across surrounding facilities in Japan: a molecular epidemiological study with the PCR-based Open-reading frame typing.
2. Investigating surface area and recovery efficiency of healthcare-associated pathogens to optimize composite environmental sampling.
3. Reduced Vancomycin Susceptibility in Clostridioides difficile Is Associated With Specific Ribotypes.
4. [Clostridiodes difficile bacteraemia. First mexican case report].
5. Clinical decision support in the electronic health record: a primer for antimicrobial stewards and infection preventionists: work smarter so end users don't work harder.
6. Is there an association between colonisation of vancomycin resistant Enterococci, methicillin resistant Staphylococcus Aureus, or Clostridiodes Difficile and mortality in sepsis?
7. Successfully Managed Toxic Megacolon Due to Clostridium difficile Infection in a Pheochromocytoma Patient Complicated by Cardiogenic and Septic Shock: A Case Report.
8. Clostridium difficile Bacteremia in an Elderly Patient with Multiple Comorbidities: A Case Report.

CDI

FMT/ Fecal Microbiota Transplant

1. Knowledge and perceptions of South African blood donors towards biobanking and stool donation.
2. Microbiome impact of ibezapolstat and other Clostridioides difficile infection relevant antibiotics using humanized mice.
3. Succinate-producing microbiota drives tuft cell hyperplasia to protect against Clostridioides difficile.

Competitors

1. From Chaos to Clarity? The Quest for Effective Probiotics in Antibiotic-Associated Diarrhea.
2. Outside-in hair contamination by blood containing opiates and opioids.
3. Vedolizumab to prevent postoperative recurrence of Crohn's disease (REPREVIO): a multicentre, double-blind, randomised, placebo-controlled trial.
4. Rumen-protected methionine supplementation improves lactation performance and alleviates inflammation during a subclinical mastitis challenge in lactating dairy cows.
5. Cryo-EM Structures Reveal the Unique Binding Modes of Metyltetraprole in Yeast and Porcine Cytochrome bc(1) Complex Enabling Rational Design of Inhibitors.
6. Have We Made Advancements in Optimizing Surgical Outcomes and Enhancing Recovery for Patients With High-Risk Adult Spinal Deformity Over Time?
7. Rescue immune tolerance induction with a recombinant factor Fc-fused VIII: prospective ReITIrate study of clinical, humoral and cellular immune responses.

CDAD

1. Clostridioides difficile infections caused by hypervirulent strains: a single-centre real-life study.
2. Non-alcoholic fatty liver disease and the gut microbiota in adolescents: is there a relationship?
3. Pediococcus pentosaceus RC007 and Saccharomyces boulardii RC009 as antibiotic alternatives for gut health in post-weaning pigs.

CMC

1. In vitro and in use efficacy of a rapid, targeted UVC decontamination system.
2. Efficacy of UV-C 254 nm Light and a Sporicidal Surface Disinfectant in Inactivating Spores from Clostridioides difficile Ribotypes In Vitro.
3. The Use of Cefiderocol in Gram-Negative Bacterial Infections at International Medical Center, Jeddah, Saudi Arabia.

Guidelines

1. Cost-effectiveness of faecal microbiota transplantation compared with vancomycin monotherapy for early Clostridioides difficile infection: economic evaluation alongside a randomised controlled trial.
2. Non-palpable contraceptive implants localization: review of imaging techniques and algorithm proposal.
3. The evidence for probiotics in the treatment of digestive disorders in the pediatric population.
4. Exploring Screen Time and Its Effects on Children's Mental Health: A Cross-Sectional Study.
5. Exclusion of echo-lucent plaque using superb micro-vascular imaging: A case report.
6. The always evolving diagnosis and management of Clostridioides difficile colitis: What you need to know.
7. A study protocol for a mixed-method environmental scan of contextual factors that influence lung cancer screening adherence.
8. Catheter-directed interventions in acute pulmonary embolism. Position statement of SEC-Interventional Cardiology Association/SEC-Ischemic Heart Disease and Acute Cardiovascular Care Association/SEC-GT Pulmonary Hypertension Working Group.
9. Diagnosis of Clostridioides difficile infection and impact of testing.
10. Comparison of the STANDARD M10 C. difficile, Xpert C. difficile, and BD MAX Cdiff assays as confirmatory tests in a two-step algorithm for diagnosing Clostridioides difficile infection.

Non-toxigenic C. difficile

1. Clostridioides difficile hypervirulent strain ST1 isolated from clinical stool specimens obtained from three Provinces in South Africa.

MGB

1. Adverse Drug Events in Ambulatory Care: A Cross-Sectional Study.

Other news of possible interest