**M3 Literature Review**

**Period: 08/07/2024 – 08/08/2024**

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Scientific Highlights:

1. [Need for improvement in the care of patients with Clostridioides difficile infections (CDI) - expert opinion in international comparison].
2. Recurrent Clostridioides difficile Infection and Outcome of Fecal Microbiota Transplantation Use: A Population-Based Assessment.
3. Human intestinal microbiome: Role in health and disease.
4. Fecal microbiota composition is a better predictor of recurrent Clostridioides difficile infection than clinical factors in a prospective, multicentre cohort study.
5. Fecal microbiota live - jslm (Rebyota™/RBL) for management of recurrent Clostridioides difficile infection.
6. Management of Clostridioides difficile infection: an Italian Delphi consensus.
7. Efficacy of Fecal Microbiota, Live-jslm (REBYOTA®), Among Patients Exposed to Non-Clostridioides difficile Infection Antibiotics: Post Hoc Subgroup Analysis of a Phase 2 Open-Label Study.
8. Predicting Clostridioides difficile infection outcomes with explainable machine learning.
9. Campylobacter Infection Introduced Following Fecal Microbiota Transplantation.
10. RelQ-mediated alarmone signalling regulates growth, stress-induced biofilm formation and spore accumulation in Clostridioides difficile.
11. The state of play of rodent models for the study of Clostridioides difficile infection.
12. Clinical Characteristics and Risk Factors for Clostridioides difficile Infection in the Hematopoietic Cell Transplantation Population.
13. Washed microbiota transplantation in an elderly patient with lymphocytic leukemia and Clostridioides difficile infection: A case report illustrating a triumph over complexity.
14. Antimicrobial susceptibility in Clostridioides difficile varies according to European region and isolate source.
15. Impact of an Intervention Program on Clostridioides difficile Infections: Comparison of 2 Hospital Cohorts.
16. Characterization of Clostridioides difficile Persister Cells and Their Role in Antibiotic Tolerance.
17. Evaluation of Bacterial Viability for Fecal Microbiota Transplantation: Impact of Thawing Temperature and Storage Time.
18. Comparative Efficacy of Fecal Microbiota Transplantation in Treating Refractory or Recurrent Clostridioides difficile Infection among Patients with and without Inflammatory Bowel Disease: A Retrospective Cohort Study.
19. Clostridioides difficile Infections: Prevention and Treatment Strategies.
20. Washed microbiota transplantation combined with biological agents promotes histological remission in refractory severe ulcerative colitis with recurrent intestinal infection: A case report.
21. Beyond Antibiotics: Novel Approaches in the Treatment of Recurrent Clostridioides difficile Infection.
22. Public health case for microbiome-sparing antibiotics and new opportunities for drug development.

Clostridioides difficile/ Clostridium difficile

1. Frailty is a predictor for worse outcomes in patients hospitalized with Clostridioides difficile infection.
2. Clostridioides difficile Infection Risk Following Different Antibiotics: Insights from Multi-source Medical Data.
3. Vonoprazan-associated Clostridioides difficile infection: an analysis of the Japanese Adverse Drug Event Report and the FDA Adverse Event Reporting System.

Fidaxomicin & Clostridium difficile

1. Encapsulation protocol for fecal microbiota transplantation.
2. Escape Velocity-the Launch of Microbiome Therapies.

Clostridioides difficile vaccine

Vancomycin & CDI

1. Impact of terminal cleaning in rooms previously occupied by patients with healthcare-associated infections.
2. Clinical characteristics of community-onset Clostridioides difficile infections at a tertiary hospital in mainland China: A fourteen-year (2010-2023) retrospective study.
3. Antimicrobial susceptibilities, resistance mechanisms and molecular characteristics of toxigenic Clostridioides difficile isolates in a large teaching hospital in Chongqing, China.
4. Prospective Audit and Feedback for Antimicrobial Treatment of Patients Receiving Renal Replacement Therapy in Community-Based University Hospitals: A before-and-after Study.
5. A case of community-acquired Clostridioides difficile infection causing intussusception, severe pneumonia, and severe hypokalemia.
6. The Effects of Opioid Administration on Clostridioides Difficile Infection: A Retrospective Cohort Study.

CDI

1. Stepwise increase of fidaxomicin in an engineered heterologous host Streptomyces albus through multi-level metabolic engineering.

FMT/ Fecal Microbiota Transplant

1. Encapsulation protocol for fecal microbiota transplantation.
2. Escape Velocity-the Launch of Microbiome Therapies.

Competitors

1. The interaction of the azetidine thiazole side chain with the active site loop (ASL) 3 drives the evolution of IMP metallo-β-lactamase against tebipenem.
2. Transgenerational reproductive toxicity induced by carboxyl and amino charged microplastics at environmental concentrations in Caenorhabditis elegans: Involvement of histone methylation.
3. Nanoplastic at environmentally relevant concentrations induces toxicity across multiple generations associated with inhibition in germline G protein-coupled receptor CED-1 in Caenorhabditis elegans.

CDAD

1. Comparative genome analyses of clinical and non-clinical Clostridioides difficile strains.
2. Clostridioides difficile Infection in the Elderly: Trend Analysis from 2000 to 2019.
3. Duration from start of antibiotic exposure to onset of Clostridioides difficile infection for different antibiotics in a non-outbreak setting.
4. Healthcare-associated Diarrhea due to Clostridioides difficile in Patients Attending a Tertiary Care Teaching Hospital of North India.
5. Genomic study of European Clostridioides difficile ribotype 002/sequence type 8.
6. Impact of intravenous antibiotics for unconfirmed pulmonary infections in patients with acute decompensated heart failure at a community health system.
7. Clostridioides difficile infection following COVID-19: A nationwide analysis using routine surveillance data in Wales.
8. Availability and barriers to access post-stroke rehabilitation in Latin America.

CMC

Guidelines

1. Opportunities to strengthen respiratory virus surveillance systems in Australia: lessons learned from the COVID-19 response.
2. Surveillance of adverse events following immunisation in Australia annual report, 2021.
3. Suitability and Usefulness of a Flexible Dosing Timing of Oral Semaglutide to Maximize Benefit in Clinical Practice: An Expert Panel.
4. More than a new name: Updates in the management of Clostridioides difficile infection.
5. More than a new name: Updates in the management of Clostridioides difficile infection.
6. Are Antibiotics of Value for a Whipple Procedure?
7. High Prevalence of Multistep Algorithms in Diagnostic Clostridioides difficile Laboratory Testing.

Non-toxigenic C. difficile

1. Commensal-pathogen dynamics structure disease outcomes during Clostridioides difficile colonization.

MGB

1. Fecal Microbiota Transplantation: A New Therapeutic Attempt from the Gut to the Brain.
2. Identification of patients at risk of Clostridioides difficile infection for enrollment in vaccine clinical trials.
3. Investigational Treatment Agents for Recurrent Clostridioides difficile Infection (rCDI).
4. Latent Class Analysis for the Diagnosis of Clostridioides difficile Infection.
5. Toxin Enzyme Immunoassays Detect Clostridioides difficile Infection With Greater Severity and Higher Recurrence Rates.
6. Comparative genomics analysis of Clostridium difficile epidemic strain DH/NAP11/106.
7. Trends in incidence of long-term-care facility onset Clostridium difficile infections in 10 US geographic locations during 2011-2015.
8. Fecal Microbiota Transplantation and Its Usage in Neuropsychiatric Disorders.

Other news of possible interest