**M3 Literature Review**

**Period: 08/09/2025 – 08/10/2025**

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Scientific Highlights:

1. Treatment outcomes and risk factors for severity and mortality in Clostridioides difficile infection: a single-center study in Thailand.
2. Fecal Microbiota-based therapies compared to Fecal Microbiota Transplantation for Preventing recurrent C. difficile Infection.
3. Bezlotoxumab for the prevention of recurrent Clostridioides difficile infection for patients with cancer.
4. Lipidomics, Microbiota, and Intestinal Clostridioides difficile Infection Outcome.
5. Assessment of chemical methods in the extraction of spore surface layers in Clostridioides difficile spores.
6. Activated PI3K Delta Syndrome: A Case Presentation and Literature Review.
7. Use of proximity ligation shotgun metagenomics to investigate the dynamics of plasmids and bacteriophages in the gut microbiome following fecal microbiota transplantation.
8. Fecal microbiota transplantation in recurrent Clostridioides difficile: Is greater methodological rigor and the analysis of other populations relevant?
9. Response to "Fecal microbiota transplantation in recurrent Clostridioides difficile: Is greater methodological rigor and the analysis of other populations relevant?".
10. De novo design of potent inhibitors of clostridial family toxins.
11. Patients, antibiotics and Clostridioides difficile: when your best friend becomes your worst enemy.
12. Efficacy of Fecal Microbiota Transplantation (FMT) Versus Standard Antibiotic Therapy in Recurrent Clostridioides difficile (CDI/rCDI) Infection: A Systematic Review and Meta-Analysis.
13. Unchecked Immunity to Unleashed Anarchy: A Case of Hemophagocytic Lymphohistiocytosis Following Combination Immune Checkpoint Inhibitor Therapy.
14. Gut power for better health: microbial therapeutics.
15. Microbiota-Based Therapies for Recurrent Clostridium difficile Infection: A Systematic Review of Their Efficacy and Safety.
16. Microbiomes in Health, Diseases and Therapeutics.
17. The emerging view on the roles of butyrate in Clostridioides difficile pathogenesis.
18. Soft tissue reconstruction of tumor-related proximal tibial hemiarthroplasty using synthetic mesh combined with a medial gastrocnemius flap.
19. Effects of lyophilised faecal filtrate compared with lyophilised donor stool on Clostridioides difficile recurrence: a multicentre, randomised, double-blinded, non-inferiority trial.
20. Compassionate Use of Encapsulated MKB-01 Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection: A Single-Center Experience.
21. Economic impact of multiple recurrent Clostridioides difficile infection in a community teaching hospital.
22. Insights on recurrent and sequential Clostridioides difficile infections from genomic surveillance in Minnesota, USA, 2019-2021.
23. Clostridioides difficile pathogenesis and control.
24. Unravelling three-way interactions between Clostridioides difficile, microbiota and the host.
25. In primary CDI, fecal microbiota transplantation was noninferior to vancomycin for clinical cure at 14 d without recurrence at 60 d.

Clostridioides difficile/ Clostridium difficile

1. Profiling of Volatile Organic Compounds in Clinical Isolate Cultures and Stools from Children with Clostridioides difficile Infection by HS-SPME-GC-MS.
2. Impact of Acid Suppressants on the Development of Clostridioides difficile Infection and Possible Preventive Effects of Probiotic Formulations.
3. A Low Concentration of Butyrate has a Protective Action Against the Deleterious Effects of Clostridioides difficile Toxins on Enteric Glia.
4. Changes in the Epidemiology of Clostridioides difficile Infection.
5. Inclusion of Emergency Department attendance on classification of Clostridioides difficile infections onset status: A revised definition.
6. Fecal Metabolomics for the Diagnosis of Clostridioides difficile Infection.
7. Prevalence and molecular types of Clostridioides (Clostridium) difficile on Australian retail vegetables and household surfaces.
8. Clostridioides difficile Infection in Healthy Children After Antibiotic Use: A Report of Two Cases.
9. Virtual Screening and Multistage Computational Profiling of Small-Molecule Inhibitors Targeting Clostridioides difficile Toxin B.
10. Proton pump inhibitors are not associated with an increased risk of Clostridioides difficile infection: a systematic review and meta-analysis of randomized controlled trials.

Fidaxomicin & Clostridium difficile

1. Fecal microbiota transplantation for primary Clostridioides difficile infection. Ready for prime time?
2. Examining the role of faecal microbiota transplantation for inducing remission in resistant ulcerative proctitis and distal ulcerative colitis (up-FMT).
3. This Letter to the Editor is in response to: Response to Fulminant Clostridioides difficile Infection Following Fecal Microbiota Spores Compared to Fecal Microbiota Transplant.
4. Response to "Fulminant Clostridioides difficile Infection Following Fecal Microbiota Spores Compared to Fecal Microbiota Transplant".
5. Assessing healthcare workers as potential stool donors for faecal microbiota transplantation: a cross-sectional study of antimicrobial-resistant gut bacteria and enteropathogenic microorganisms.
6. Gut microbial modulation of 3-hydroxyanthranilic acid and dopaminergic signalling influences attention in obesity.
7. Improving Clinical Outcomes of Encapsulated Faecal Microbiota Transplantation for Clostridioides difficile Infection Through Empirical Donor Selection and Optimised Dosing: A Quality Improvement Study.

Clostridioides difficile vaccine

1. Effect of co-administration of lactobacilli S-layer proteins on immune response against S-layer proteins from pathogenic Clostridioides difficile.
2. FluTracking: Weekly online community-based surveillance of respiratory illness in Australia, 2020-2022 Report.
3. Australian vaccine preventable disease epidemiological review series: mumps, 2013-2021.
4. FluTracking: Weekly online community-based surveillance of respiratory illness in Australia, 2023 Report.

Vancomycin & CDI

1. Ceftobiprole medocaril (Zevtera) - a new cephalosporin antibiotic.
2. Comprehensive genomic analysis and antibiotic resistance profiles of Clostridioides difficile from cats and dogs in Türkiye.
3. β-Lactam Adjunctive Therapy Compared to Vancomycin or Daptomycin Monotherapy in Adult Patients With Methicillin-Resistant Staphylococcus aureus Bacteremia: An Update Systematic Review, Meta-Analysis, and Trial Sequential Analysis.
4. A novel case of prosthetic joint infection due to Clostridioides difficile successfully suppressed with oral doxycycline.
5. Use of primary oral vancomycin prophylaxis to stem an outbreak of Clostridioides difficile infection in intensive care patients.
6. First Comprehensive Genome Analysis and Antimicrobial Resistance Profile of Clostridium innocuum from a Domestic Cat.
7. Emphysematous Gastritis in the Setting of Stage Four Colon Cancer After Radiation Therapy and Ongoing Chemotherapy: A Case Report.
8. Evolving Patterns of Etiological Profiles and Susceptibility Trends of Healthcare-Associated Infections Since Inception: A Meta-Analysis.

CDI

FMT/ Fecal Microbiota Transplant

1. Fecal microbiota transplantation for primary Clostridioides difficile infection. Ready for prime time?
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7. Improving Clinical Outcomes of Encapsulated Faecal Microbiota Transplantation for Clostridioides difficile Infection Through Empirical Donor Selection and Optimised Dosing: A Quality Improvement Study.

Competitors

1. Sulbactam-durlobactam improves cephalosporin and carbapenem susceptibility and time-kill effect against Mycobacterium abscessus.
2. Ectopic transcription due to inherited histone methylation may interfere with the ongoing function of differentiated neurons.
3. Imeglimin Alleviates High-Glucose-Induced Bioenergetic and Oxidative Stress Thereby Enhancing Intercellular Adhesion in H9c2 Cardiomyoblasts.
4. Oral β-lactam combinations are effective in vitro against Mycobacterium avium, regardless of clarithromycin susceptibility.
5. How to spare gut microbiota from antibiotic effects? PK-PD based innovative strategies, target specificity, and molecule-to-medicinal properties.
6. The Impact of Preoperative Functional Capacity on Postoperative Mortality and Morbidity. A Prospective Cohort Study.

CDAD

1. Advances in Understanding the Pathogenesis of Clostridioides difficile Infection.
2. Novel Enterococcus faecium P2 as a probiotic for mitigating Clostridioides difficile infection.
3. Probiotics for the prevention of Clostridioides difficile-associated diarrhea in adults and children.
4. Influence of Morphology on Luminescent and Structural Properties of Eu(3+)-Doped Hydroxyapatite Powders Sintered by Spark Plasma Sintering.
5. Preclinical evaluation of 6-Gingerol in modulating gut microbiota and SCFAs to mitigate Clostridium difficile-associated diarrhea in mice.
6. Cytochrome c adsorption on carboxylated surfaces: charge regulation and protein orientation modulated by surface curvature.
7. Microbiome signatures of Clostridioides difficile toxin production and toxin gene presence: a shotgun metagenomic approach.
8. Climate links leaf shape variation and functional strategies in quinoa's wild ancestor.
9. Identification of risk factors for Clostridium difficile infection in older adult hospitalized patients with pressure ulcers.
10. Impact of targeted interventions on healthcare-acquired infection prevention and control of Clostridium difficile infections.

CMC

Guidelines

1. Annual Immunisation Coverage Report 2022.
2. Australian Gonococcal Surveillance Program, 1 January to 31 March 2025.
3. Clostridioides difficile infection and antibiotic prescribing at a regional hospital in Australia: a case-control study.
4. Epidemiology and Risk Factors of Pediatric Clostridioides difficile Infection: A Nationwide Claims-based Comparison With Adults in Japan.
5. Current Challenges in Encephalopathy Documentation and Coding.
6. Proton Pump Inhibitors (PPIs)-An Evidence-Based Review of Indications, Efficacy, Harms, and Deprescribing.
7. Increased Antimicrobial Consumption, Isolation Rate, and Resistance Profiles of Multi-Drug Resistant Klebsiella pneumoniae, Pseudomonas aeruginosa, and Acinetobacter baumannii During the COVID-19 Pandemic in a Tertiary Healthcare Institution.
8. Health risks assessment of polycyclic aromatic hydrocarbons (PAHs) in meat kebabs through meta-analysis and Monte Carlo simulation.
9. Investigation of a Salmonella Typhi cluster among a Pacific Islander labour community in a fruit industry: perspective from a regional public health unit.
10. Probabilistic Human Risk Assessment of Potentially Toxic Elements in Planiliza klunzingeri and Sillago sihama Fish in Persian Gulf.
11. Health risks from persistent heavy metal contamination in crops and water at an abandoned naturally revegetated galamsey site in Ghana.
12. Anti-tau VHH therapy against PHF6: a safe approach to slowing the phenotype of tau pathology.

Non-toxigenic C. difficile

1. Antimicrobial Resistance of Clostridioides (Clostridium) difficile in Cambodia.

MGB

Other news of possible interest