**M3 Literature Review**

**Period: 08/05/2025 – 08/06/2025**

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Scientific Highlights:

1. Management and Outcomes of Clostridioides difficile Infection in Patients on Immune Checkpoint Inhibitors.
2. More questions than answers? Predicting FMT outcomes for recurrent Clostridioides difficile infection.
3. Evaluation of the Efficacy of Step-down Therapy with Oral Minocycline for Complicated Pyelonephritis Caused by Extended-Spectrum β-Lactamase-Producing Enterobacterales: A Retrospective Cohort Study.
4. Beyond Random Fecal Microbial Transplants: Next Generation Personalized Approaches to Normalize Dysbiotic Microbiota for Treating IBD.
5. Current Approaches to Treat and Prevent Recurrence of Clostridioides difficile.
6. Bacterial diversity, viability and stability in lyophilised faecal microbiota capsules support ongoing clinical use.
7. Reactive Arthritis.
8. Efficacy of a New Commercial Vaccine Against Clostridioides difficile and Clostridium perfringens Type A for Recurrent Swine Neonatal Diarrhea Under Field Conditions.
9. A Randomized Controlled Trial of Efficacy and Safety of Fecal Microbiota Transplant for Preventing Recurrent Clostridioides difficile Infection: The Failure of a Procedure, not of a Therapy.
10. Infectious Diarrhea in Kidney Transplant Recipients.
11. Equol neutralizes toxin B to combat Clostridioides difficile infection without disrupting the gut microbiota.
12. Global Practice Variation in the Management of Clostridioides difficile Infections: An International Cross-Sectional Survey of Clinicians.
13. Lung Cryoablation: Patient Selection, Techniques, and Postablation Imaging.
14. Prolonged effect of antibiotic therapy on the gut microbiota composition, functionality, and antibiotic resistance genes' profiles in healthy stool donors.
15. Washed microbiota transplantation for ribotype 027 Clostridioides difficile infection in a pregnant woman with two-year follow-up: a case report.
16. Community-Acquired Clostridioides difficile Infection: The Fox Among the Chickens.
17. Fecal microbiota transplant is associated with resolution of recurrent urinary tract infection.
18. Efficacy and safety of Saccharomyces boulardii as adjunct therapy with Vancomycin in treating Clostridioides difficile infection: A randomized controlled trial.
19. Host origin of microbiota drives functional recovery and Clostridioides difficile clearance in mice.
20. Tapia's Syndrome Secondary to Prolonged Intubation and Tracheostomy in a Patient With Opioid Dependence With Spontaneous Recovery.
21. Lines on the line: evaluating the impact of antibiotic lock therapy versus catheter removal in the management of central vascular catheter infections.
22. Fecal microbiota transplantation: present and future.

Clostridioides difficile/ Clostridium difficile

1. A Colombian strain of Clostridioides difficile ribotype 002 induces a highly inflammatory response in a mouse infection model.
2. Differences in virulence and drug resistance between Clostridioides difficile ST37 and ST1 isolates.
3. Risk factors for Clostridioides difficile infection caused by ribotype 027 strains in the Veterans Affairs Healthcare System: a matched case-control study.
4. Dietary fiber modulates the window of susceptibility to Clostridioides difficile infection.
5. Impact of a multi-step testing algorithm on hospital-onset Clostridioides difficile rates and clinical outcomes.
6. The role of the enteric nervous system in the pathogenesis of Clostridioides difficile infection.
7. Genomic analysis of a novel ST11(PR34365) Clostridioides difficile strain isolated from the human fecal of a CDI patient in Guizhou, China.
8. The phi027 bacteriophage influences physiology and virulence of the lysogenic strain of Clostridioides difficile.
9. Maternal Transmission of Symptomatic Clostridioides difficile Infection to Two Premature Neonates.
10. Characterization of Adult and Pediatric Healthcare-Associated and Community-Associated Clostridioides difficile Infections, Canada, 2015-2022.
11. Whole genome sequence analysis reveals limited diversity among Clostridioides difficile ribotype 027 and 078 isolates collected in 22 hospitals in Berlin and Brandenburg, Germany.
12. Use of PCR cycle threshold values for toxins A and B quantification in Clostridioides difficile infections.
13. In situ identification of toxin-producing Clostridioides difficile in stool samples based on single-cell Raman spectroscopy.
14. Low Incidence of Clostridioides difficile Infection in Patients Receiving Outpatient Parenteral Antibiotic Therapy at an Urban Academic Medical Center.
15. Study on utility of GDH and prevalence of Clostridium difficile infection in ICU patients.
16. Does Clostridioides difficile infection play a role in premalignant colonic lesions? A retrospective cohort study.

Fidaxomicin & Clostridium difficile

1. Nasogastric Delivery of Fecal Microbiota Transplantation for the Treatment of Fulminant Clostridioides difficile Infection: A Case Report.
2. Fulminant Clostridioides difficile Infection Following Fecal Microbiota Spores compared to Fecal Microbiota Transplant.
3. Current Applications and Future Prospects of Fecal Microbiota Transplantation.
4. Clostridium difficile as a potent trigger of colorectal carcinogenesis.
5. Comment on "Alteration of gut microbial composition associated with the therapeutic efficacy of fecal microbiota transplantation in Clostridium difficile infection".
6. Clostridioides difficile enteritis: a targeted review of current literature.

Clostridioides difficile vaccine

1. Australian Rotavirus Surveillance Program Annual Report, 2023.
2. Against Clostridioides difficile Infection: An Update on Vaccine Development.

Vancomycin & CDI

1. Impact of vancomycin and Clostridioides difficile on the secretome and pathogenicity of Clostridium innocuum.
2. Vancomycin Therapy for Induction and Maintenance of Remission in a Patient with Refractory Ulcerative Colitis and Primary Sclerosing Cholangitis: A Case Report and Literature Review.
3. Vancomycin Treatment for Pneumobilia in Clostridioides difficile Infection: A Case Analysis.
4. The sigma factor σ(54) (rpoN) functions as a global regulator of antibiotic resistance, motility, metabolism, and virulence in Clostridioides difficile.
5. Comparison of ceftriaxone versus ceftaroline in combination with ampicillin or penicillin against Enterococcus faecalis.
6. Does the use of pulsed-xenon ultraviolet light reduce the risk of healthcare-associated infections?: An updated systematic review and meta-analysis.

CDI

FMT/ Fecal Microbiota Transplant

1. Nasogastric Delivery of Fecal Microbiota Transplantation for the Treatment of Fulminant Clostridioides difficile Infection: A Case Report.
2. Fulminant Clostridioides difficile Infection Following Fecal Microbiota Spores compared to Fecal Microbiota Transplant.
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6. Clostridioides difficile enteritis: a targeted review of current literature.

Competitors

1. Nuclear deformability depends on H3K9-methylated heterochromatin anchorage to the nuclear periphery in Caenorhabditis elegans.
2. Effect of in ovo-fed amino acids on muscle and liver metabolome of broiler chickens at 24 h post-hatch.
3. Pharmacological characterisation of JNJ-78911118, a novel, centrally-penetrant, selective GluN2A antagonist.
4. Mechanistic Insights into Enhanced Reactivation of Organophosphate-Inhibited Enzymes by Methyl-Substituted 2-Pralidoxime Analogs.
5. Development of septa in the urinary bladder of client-owned rabbits leading to urinary outflow obstruction, urinary retention, and urinary bladder distension.
6. Referral Rates and Diagnostic Evaluation for Primary Ciliary Dyskinesia in Patients With Laterality Defects Who Meet Primary Ciliary Dyskinesia Evaluation Criteria.

CDAD

1. Meckel's Mystery: Unraveling the Source of Hidden Hemorrhage in a 42-Year-Old Male.
2. Metagenomic analysis reveals distinct patterns of gut microbiota features with diversified functions in C. difficile infection (CDI), asymptomatic carriage and non-CDI diarrhea.
3. Impact of Clostridioides difficile Infection on the Outcome of Severe Flare of Ulcerative Colitis.
4. Trends in admissions and outcomes of hospitalizations related to Clostridioides difficile infection: a nationwide analysis from 2005-2020.
5. CD44 is a macrophage receptor for TcdB from Clostridioides difficile that via its lysine-158 succinylation contributes to inflammation.
6. Laxative use and 28-day mortality in critically ill sepsis patients: a retrospective cohort study using MIMIC-IV (v3.1).
7. A case of hospital-acquired pneumonia associated with Chryseobacterium indologenes infection in a patient with HIV infection and review of the literature.
8. Patient centric performance and interpretation of SPECT and SPECT/CT myocardial perfusion imaging: a clinical consensus statement of the European Association of Cardiovascular Imaging of the ESC.
9. Efficacy and safety of dual-targeted therapy for refractory inflammatory bowel disease: a retrospective case series from three tertiary general hospitals in China.
10. Development and validation of a clinical prediction model for Clostridioides difficile associated diarrhea.
11. Gut microbiota and its influence on the Gut-Brain axis in comparison with chemotherapy patients and cancer-free control data in Breast cancer-A computational perspective.
12. The future of healthcare-associated infection surveillance: Automated surveillance and using the potential of artificial intelligence.
13. Effects of sexual dimorphism and estrous cycle on murine Clostridioides difficile infection.

CMC

Guidelines

1. Emergency department eosinophil counts and mortality in Clostridium difficile: a multihospital retrospective cohort study.
2. Potential for Misinterpretation in the Laboratory Diagnosis of Clostridioides difficile Infections.
3. Usage of oral vancomycin for acute Clostridioides difficile infection (CDI) resulting in later acquisitions of vancomycin-resistant enterococci (VRE).
4. Evaluation of the psychometric properties of the cardiac distress inventory in Iranian patients with heart disease.
5. Antimicrobial resistance in northern Australia: the HOTspots surveillance and response program annual epidemiology report 2022.
6. Report on influenza viruses received and tested by the Melbourne WHO Collaborating Centre for Reference and Research on Influenza during 2023.
7. Out-of-hours oral antibiotic prescribing through the community pharmacy independent prescribing service in Wales: a secondary data analysis study.
8. Allergy alerting and overrides for opioid analogues across two health systems.
9. Use and institutional variation in surgical antibiotic prophylaxis for pediatric clean (class I) penile and groin procedures.
10. Laboratory diagnosis of Clostridioides difficile infection: past, present and future.
11. Evaluation of the Potency of the First Commercial Vaccine for Clostridioides difficile Infection in Piglets and Comparison with the Humoral Response in Rabbits.
12. Evaluation of the Efficacy of UV-C Radiation in Eliminating Clostridioides difficile from Touch Surfaces Under Laboratory Conditions.
13. Exploring Childhood Lower Urinary Tract Symptoms (LUTS), Urinary Tract Infections (UTIs) and the Microbiome-A Systematic Review.
14. Newly emerging metronidazole-resistant Clostridioides difficile PCR ribotype 955 identified in Poland, 2021 to 2023 but not in Czechia, 2012 to 2023 and Slovakia, 2015 to 2023.
15. Probiotic treatment in an intensive care unit: a narrative review.
16. Public knowledge, awareness and perception of gut microbiome and faecal microbiota transplantation in Singapore: a survey study.
17. Clostridioides difficile-infeksjon.

Non-toxigenic C. difficile

MGB

Other news of possible interest