**M3 Literature Review**

**Period: Start date – 04/10/2023**

[Scientific Highlights: 1](#_Toc143520007)

[Clostridioides difficile/ Clostridium difficile 3](#_Toc143520008)

[Fidaxomicin & Clostridium difficile 4](#_Toc143520009)

[Clostridioides difficile vaccine 4](#_Toc143520010)

[Vancomycin & CDI 4](#_Toc143520011)

[CDI 4](#_Toc143520012)

[FMT/ Fecal Microbiota Transplant 5](#_Toc143520013)

[Competitors 5](#_Toc143520014)

[CDAD 6](#_Toc143520015)

[CMC 6](#_Toc143520016)

[Guidelines 6](#_Toc143520017)

[Non-toxigenic C. difficile 6](#_Toc143520018)

[MGB 6](#_Toc143520019)

[Other news of possible interest 7](#_Toc143520020)

Scientific Highlights:

1. Clostridioides difficile infection in the allogeneic hematopoietic cell transplant recipient. (https://dx.doi.org/10.1111/tid.14159)
2. Microbiome profile and calprotectin levels as markers of risk of recurrent Clostridioides difficile infection. (https://dx.doi.org/10.3389/fcimb.2023.1237500)
3. Two Times Versus Four Times Daily Cephalexin Dosing for the Treatment of Uncomplicated Urinary Tract Infections in Females. (https://dx.doi.org/10.1093/ofid/ofad430)
4. Effects of fecal microbiota transplantation for recurrent Clostridium difficile infection in children on kidney replacement therapy: a pilot study. (https://dx.doi.org/10.1007/s00467-023-06168-6)
5. Antisense inhibition of RNA polymerase Î± subunit of Clostridioides difficile. (https://dx.doi.org/10.1128/spectrum.01755-23)
6. Outcomes of high-dose oral beta-lactam definitive therapy compared to fluoroquinolone or trimethoprim-sulfamethoxazole oral therapy for bacteremia secondary to a urinary tract infection. (https://dx.doi.org/10.1017/ash.2023.435)
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8. Atypical presentation of a rare disorder; idiopathic myointimal hyperplasia of mesenteric veins (IMHMV): Report of two cases. (https://dx.doi.org/10.1016/j.ijscr.2023.108839)
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15. Short-course empiric antibiotics in children undergoing allogeneic hematopoietic cell transplant. (https://dx.doi.org/10.1016/j.jtct.2023.09.011)
16. Long-term Safety Outcomes of Fecal Microbiota Transplantation: Real-World Data over Eight Years from the Hong Kong FMT Registry. (https://dx.doi.org/10.1016/j.cgh.2023.09.001)
17. A Potent and Narrow-Spectrum Antibacterial against Clostridioides difficile Infection. (https://dx.doi.org/10.1021/acs.jmedchem.3c01249)
18. Novel, non-colonizing, single-strain live biotherapeutic product ADS024 protects against Clostridioides difficile infection challenge in vivo. (https://dx.doi.org/10.4291/wjgp.v14.i4.71)
19. A Combined Surgical Approach for Recurrent Patellar Dislocation in Adolescents with Patella Alta and Increased Tibial Tuberosity-Trochlear Groove Distance: Improved Clinical Outcomes but Decreased Posterior Tibial Slopes in Skeletally Immature Patients at Minimum 4-Year Follow-up. (https://dx.doi.org/10.1016/j.arthro.2023.09.001)
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Clostridioides difficile/ Clostridium difficile

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Fidaxomicin & Clostridium difficile

1. Microbial ecology between Clostridioides difficile and gut microbiota. (https://dx.doi.org/10.12938/bmfh.2023-033)
2. The Role of Fecal Microbiota Transplantation in the Allogeneic Stem Cell Transplant Setting. (https://dx.doi.org/10.3390/microorganisms11092182)
3. Clostridioides difficile Infection: Landscape and Microbiome Therapeutics. (https://dx.doi.org/Unknown DOI)
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5. Patient Perception of Route of Rectal Administration of Live Biotherapeutic Product for Recurrent Clostridioides difficile Infection. (https://dx.doi.org/10.2147/PPA.S415681)
6. Clostridioides difficile Infection in Pediatric Inflammatory Bowel Disease. (https://dx.doi.org/10.1007/s11894-023-00890-9)
7. Identification of donor Bacteroides vulgatus genes encoding proteins that correlate with early colonization following fecal transplant of patients with recurrent Clostridium difficile. (https://dx.doi.org/10.1038/s41598-023-41128-y)
8. Systems-ecology designed bacterial consortium protects from severe Clostridioides difficile infection. (https://dx.doi.org/10.1101/2023.08.08.552483)
9. Therapeutics for Clostridioides difficile infection: molecules and microbes. (https://dx.doi.org/10.1080/17474124.2023.2250716)
10. Recurrent Multidrug-Resistant Clostridium difficile Infection Secondary to Ulcerative Colitis a Case Report. (https://dx.doi.org/10.3390/medsci11030052)
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12. Gut microbiome and its clinical implications: exploring the key players in human health. (https://dx.doi.org/10.1097/QCO.0000000000000958)

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Vancomycin & CDI

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CDI

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9. Bioequivalence Evaluation of Topical Metronidazole Products Using Dermal Microdialysis in New Zealand Rabbits. (https://dx.doi.org/10.1208/s12249-023-02660-2)
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FMT/ Fecal Microbiota Transplant

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6. Clostridioides difficile Infection in Pediatric Inflammatory Bowel Disease. (https://dx.doi.org/10.1007/s11894-023-00890-9)
7. Identification of donor Bacteroides vulgatus genes encoding proteins that correlate with early colonization following fecal transplant of patients with recurrent Clostridium difficile. (https://dx.doi.org/10.1038/s41598-023-41128-y)
8. Systems-ecology designed bacterial consortium protects from severe Clostridioides difficile infection. (https://dx.doi.org/10.1101/2023.08.08.552483)
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12. Gut microbiome and its clinical implications: exploring the key players in human health. (https://dx.doi.org/10.1097/QCO.0000000000000958)

Competitors

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8. Two-year durability of REBYOTAâ„¢ (RBL), a live biotherapeutic for the prevention of recurrent Clostridioides difficile infections. (https://dx.doi.org/10.1093/ofid/ofad456)
9. The in vitro effect of new combinations of carbapenem-Î²-lactamase inhibitors for Mycobacterium abscessus. (https://dx.doi.org/10.1128/aac.00528-23)
10. Microplastics influence on herbicides removal and biosurfactants production by a Bacillus sp. strain active against Fusarium culmorum. (https://dx.doi.org/10.1038/s41598-023-41210-5)
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CDAD

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2. Isofagomine inhibits multiple TcdB variants and protects mice from Clostridioides difficile induced mortality. (https://dx.doi.org/10.1101/2023.09.19.558375)
3. Phage therapy in gut microbiome. (https://dx.doi.org/10.1016/bs.pmbts.2023.04.005)
4. Association of Clostridioides difficile infection rates with social determinants of health in Denver area census tracts, 2016-2019. (https://dx.doi.org/10.1016/j.pmedr.2023.102427)
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CMC

1. Manufacturing Processes of a Purified Microbiome Therapeutic Reduce Risk of Transmission of Potential Bacterial Pathogens in Donor Stool. (https://dx.doi.org/10.1093/infdis/jiad298)
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3. A microbial consortium alters intestinal Pseudomonadota and antimicrobial resistance genes in individuals with recurrent Clostridioides difficile infection. (https://dx.doi.org/10.1128/mbio.03482-22)
4. [Fecal Microbiota Transfer (FMT) in Germany - Status and Perspective]. (https://dx.doi.org/10.1055/a-2075-2725)
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8. Structural Basis for Binding of Neutralizing Antibodies to Clostridioides difficile Binary Toxin. (https://dx.doi.org/10.1128/jb.00456-22)
9. Effect of Mannan-rich fraction supplementation on commercial broiler intestinum tenue and cecum microbiota. (https://dx.doi.org/10.1186/s42523-022-00208-6)
10. Effect of Selective Decontamination of the Digestive Tract on Hospital Mortality in Critically Ill Patients Receiving Mechanical Ventilation: A Randomized Clinical Trial. (https://dx.doi.org/10.1001/jama.2022.17927)
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12. SER-109: An Oral Investigational Microbiome Therapeutic for Patients with Recurrent Clostridioides difficile Infection (rCDI). (https://dx.doi.org/10.3390/antibiotics11091234)
13. Effectiveness and Safety of Colonic and Capsule Fecal Microbiota Transplantation for Recurrent Clostridioides difficile Infection. (https://dx.doi.org/10.1016/j.cgh.2022.09.008)
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15. Development of a New Additive Based on Textile Fibers of End-of-Life Tires (ELT) for Sustainable Asphalt Mixtures with Improved Mechanical Properties. (https://dx.doi.org/10.3390/polym14163250)
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17. Validation of Clinical Risk Models for Clostridioides difficile-Attributable Outcomes. (https://dx.doi.org/10.1128/aac.00676-22)
18. Comparative Evaluation of Three Immunoassays for the Simultaneous Detection of Clostridioides difficile Glutamate Dehydrogenase and Toxin A/B. (https://dx.doi.org/10.3390/microorganisms10050947)
19. Occurrence of Rotavirus A Genotypes and Other Enteric Pathogens in Diarrheic Suckling Piglets from Spanish Swine Farms. (https://dx.doi.org/10.3390/ani12030251)

Guidelines

1. The effect of circadian preference and sleep disturbances on depression in children 6 to 12 years of age. (https://dx.doi.org/10.1080/07420528.2023.2262577)
2. Clostridioides Difficile in Latin America: An Epidemiological Overview. (https://dx.doi.org/10.1007/s00284-023-03475-x)
3. Clostridioides (Clostridium) difficile: A silent nosocomial pathogen. (https://dx.doi.org/10.15537/smj.2023.44.9.20230216)
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