

Guideline for the Management of *Clostridium Difficile* Infection in Children and Adolescents With Cancer and Pediatric Hematopoietic Stem-Cell Transplantation Recipients

COG Supportive Care Endorsed Guidelines

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The “Guideline for the Management of *Clostridium Difficile* Infection in Children and Adolescents with Cancer and Pediatric Hematopoietic Stem-Cell Transplantation Recipients” developed by the Pediatric Oncology Group of Ontario (POGO) was endorsed by the COG Supportive Care Guideline Committee in February 2019.

The source guideline is published (Diorio C, Robinson PD, Ammann R, et al. Guideline for the management of *Clostridium difficile* infection in children and adolescents with cancer and pediatric hematopoietic stem cell transplantation recipients. J Clin Oncol 2018; 36:31, 3162-3171.) and is available at: <https://doi.org/10.1200/JCO.18.00407>

The purpose of the source guideline is to create a clinical practice guideline for the prevention and treatment of *Clostridium difficile* in children and adolescents with cancer and pediatric HSCT patients. Recommendations from the endorsed clinical practice guideline are presented in the table below.

Summary of Recommendations for the Management of *Clostridium Difficile* Infection (CDI) in Children and Adolescents with Cancer and Pediatric Hematopoietic Stem-Cell Transplantation Recipients

RECOMMENDATIONS	Strength of Recommendation and Quality of Evidence*
What interventions should be used for the prevention of <i>Clostridium difficile</i> infection (CDI) in children and adolescents with cancer and pediatric HSCT patients?	
1. We suggest that probiotics not be used routinely for the prevention of CDI in children and adolescents with cancer and pediatric HSCT patients	Weak recommendation Low quality evidence
What interventions should be used for the treatment of CDI in children and adolescents with cancer and pediatric HSCT patients?	
2. Use either oral metronidazole or oral vancomycin for the treatment of nonsevere CDI in children and adolescents with cancer and pediatric HSCT patients	Strong recommendation Low quality evidence
3. Use oral vancomycin for the treatment of severe CDI in children and adolescents with cancer and pediatric HSCT patients	Strong recommendation Low quality evidence
4. Consider fidaxomicin for the treatment of recurrent CDI in children and adolescents with cancer and pediatric HSCT patients	Weak recommendation Low quality evidence
5. Do not use fecal microbiota transplantation routinely for the treatment of CDI in children and adolescents with cancer and pediatric HSCT patients	Strong recommendation Low quality evidence
6. We suggest that monoclonal antibodies not be used routinely for the treatment of CDI in children and adolescents with cancer and pediatric HSCT patients	Weak recommendation Low quality evidence
7. We suggest that probiotics not be used routinely for the treatment of CDI in children and adolescents with cancer and pediatric HSCT patients.	Weak recommendation Low quality evidence

*see Appendix 1

Appendix 1: Systems for Classifying Recommendations and Evidence used by the Source Clinical Practice Guidelines

I. GRADE

Strength of Recommendations:

Strong Recommendation	When using GRADE, panels make strong recommendations when they are confident that the desirable effects of adherence to a recommendation outweigh the undesirable effects.
Weak Recommendation	Weak recommendations indicate that the desirable effects of adherence to a recommendation probably outweigh the undesirable effects, but the panel is less confident.

Strength of Recommendations Determinants:

Factor	Comment
Balance between desirable and undesirable effects	The larger the difference between the desirable and undesirable effects, the higher the likelihood that a strong recommendation is warranted. The narrower the gradient, the higher the likelihood that a weak recommendation is warranted
Quality of evidence	The higher the quality of evidence, the higher the likelihood that a strong recommendation is warranted
Values and preferences	The more values and preferences vary, or the greater the uncertainty in values and preferences, the higher the likelihood that a weak recommendation is warranted
Costs (resource allocation)	The higher the costs of an intervention—that is, the greater the resources consumed—the lower the likelihood that a strong recommendation is warranted

Quality of Evidence

High Quality	Further research is very unlikely to change our confidence in the estimate of effect
Moderate Quality	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate
Low Quality	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate
Very Low Quality	Any estimate of effect is very uncertain

Guyatt, G.H., et al., *GRADE: an emerging consensus on rating quality of evidence and strength of recommendations*. BMJ, 2008; 336: 924-926.

Guyatt, G.H., et al., *GRADE: going from evidence to recommendations*. BMJ, 2008; 336: 1049-1051.