



Association of Medical Microbiology  
and Infectious Disease Canada  
l'Association pour la microbiologie  
médicale et l'infectiologie Canada



Association of Medical Microbiology and Infectious Disease Canada  
and  
Canadian Orthopaedic Association

Joint Statement

ORAL TREATMENT FOR BONE AND JOINT (INCLUDING PROSTHETIC JOINT)  
INFECTIONS

**PREAMBLE**

Bacterial bone and joint infections, including prosthetic joint infections, have been traditionally treated with intravenous antibiotics, necessitating the need for long-term vascular catheter devices. Complications associated with prolonged intravenous antibiotics are significant, and contribute to increased healthcare utilization and expenditures<sup>[2,3,4]</sup>. The Infectious Diseases Society of America (IDSA) guideline on prosthetic joint infections was published over a decade ago<sup>[5]</sup>. The assumption that intravenous antibiotics are more effective than oral antibiotics to treat bone and joint infections is based on data from the last century when the choice of highly bioavailable antibiotics was limited<sup>[8]</sup>. Since then, data in the adult population showing the non-inferiority of highly bioavailable oral antibiotics compared to intravenous antibiotics for the treatment of bone and joints infection have emerged<sup>[1,4,6,7,8,9,10,11,12]</sup>.

In that context, the Canadian Orthopedic Association (COA) and the Association of Medical Microbiology and Infectious Diseases of Canada (AMMI Canada) have reviewed the evidence on the effectiveness of oral highly bioavailable antibiotics for the treatment of bone and joints infections, including prosthetic joint infections.

These professional societies conclude that:

1. Prolonged intravenous antibiotic treatment is associated with increased risk of catheter-related complications (such as catheter occlusion, thrombosis and infection) resulting in significant healthcare utilization and expenditures
2. The safety and tolerability of oral antibiotics is comparable to intravenous antibiotics
3. Highly bioavailable oral antibiotics are non-inferior to intravenous antibiotics for the treatment of bone and joint infections in the adult population, including prosthetic joint infections

## RECOMMENDATION

COA and AMMI Canada provide the following guidance concerning the management of bone and joint infections in the adult population (>18 years old), including prosthetic joint infections:

1. Highly bioavailable antibiotics can be used as first line treatment for bone and joint infections, including prosthetic joint infections, in collaboration with Infectious Disease specialists, if the following criteria are met:
  - Patient has undergone appropriate source control if applicable (i.e. washout with revision arthroplasty, debridement, drainage)
  - If a pathogen is isolated, that it is confirmed to be susceptible to a highly bioavailable oral agent
  - No other focus of infection which requires intravenous antibiotic therapy has been identified
  - Patient has a functioning gastrointestinal tract
  - There is no allergy or drug interactions related to the chosen oral antibiotic
  - Patient is expected to be able to adhere to an oral antibiotic regimen
  - Patient is expected to be able to afford a 6-12 week course of oral antibiotic therapy
2. Oral antibiotic therapy can be started as soon as the patient is able to tolerate oral medication
3. Culture-negative infections can be treated with highly bioavailable oral antibiotic combinations if there is no concern for resistant organisms or non-bacterial infection

This joint statement was reviewed in collaboration with a patient partner.

This Joint Position Statement was developed by the COA Standards Committee and AMMI Canada. This version was approved by the COA Executive Committee and COA Board of Directors on January 16, 2025.

Disclaimer: The statements summarized in this document are expert opinions and/or consensus-based statements/recommendations published by various resources. The summarized statements may not necessarily be based on empirical evidence, nor considering physician or patient's values and/or preferences. Statements above are not meant to serve as official clinical guideline recommendations for healthcare providers and/or decision-makers endorsed by the Canadian Orthopaedic Association and/or its partners.

AMMI Canada and COA Joint Position Statement: Oral treatment for bone and joint (including prosthetic joint) infections.

January 16, 2025

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