

# What's new in the Arthroplasty device infections topic (2022)

Some of the new information and major changes included in *Therapeutic Guidelines*.

---

To address the findings of the landmark PIANO<sup>1</sup> study, Therapeutic Guidelines undertook a full revision of the Arthroplasty device infections topic. The study confirmed that aetiology of arthroplasty device infections varies depending on the classification of the infection, which has important implications for empirical antibiotic treatment.

The new topic includes a useful overview section on **Approach to managing arthroplasty device infections**, which links to more detailed information on investigations, surgical management and antibiotic therapy. A key point highlighted in this section is the need to urgently refer any patient with a suspected arthroplasty device infection to the surgeon who implanted the joint. Early multidisciplinary input, involving both a surgeon experienced in arthroplasty and an infectious diseases physician or clinical microbiologist, is essential to guide investigations and management of arthroplasty device infections.

The section on **Investigations** includes a discussion on the importance of withholding empirical antibiotic therapy preoperatively to optimise the microbiological yield of surgical peri-prosthetic sampling in patients without sepsis or sepsis shock. Surgical antibiotic prophylaxis is still recommended to be administered at the usual time before surgical incision to decrease the risk of surgical site infection.

The section on **Surgical management** has been updated in line with the latest evidence, including the duration of antibiotic therapy for different surgical strategies and advice on the appropriateness of each strategy based on the classification of the infection and other patient factors.

---

<sup>1</sup> Manning L, Metcalf S, Clark B, Robinson JO, Huggan P, Luey C, et al. Clinical Characteristics, Etiology and Initial Management Strategy of Newly Diagnosed Periprosthetic Joint Infection: A Multicenter, Prospective Observational Cohort Study of 783 Patients. *Open Forum Infect Dis* 2020;7(5)ofaa068.

<https://www.ncbi.nlm.nih.gov/pubmed/32432148>

Arthroplasty device infections are classified as early postoperative, late acute or late chronic infections according to the timing of the infection following joint implantation and the duration of symptoms. Narrow-spectrum **empirical antibiotic treatment** is recommended for late acute infections, which are mainly caused by Gram-positive organisms. In contrast, broad-spectrum empirical antibiotic treatment is required to treat the likely pathogens implicated in early postoperative and late chronic infections, and for any patients with symptoms or signs of sepsis or septic shock. **Directed antibiotic therapy** is based on culture and susceptibility results from intraoperative sampling; the new topic highlights evidence suggesting an early switch to oral therapy is appropriate for the majority of patients.

---

**For more information and orders visit [www.tg.org.au](http://www.tg.org.au)  
or freecall 1800 061 260 (within Australia)**



**Therapeutic  
Guidelines**

For computers and mobile devices



Download the Therapeutic Guidelines app

August 2022