

## **PREVENTION OF ORTHOPAEDIC IMPLANT INFECTION IN PATIENTS UNDERGOING DENTAL PROCEDURES: EVIDENCE-BASED GUIDELINE AND EVIDENCE REPORT**

### **Disclaimer**

This clinical guideline was developed by a physician and dentist volunteer Work Group and experts in systematic reviews. It is provided as an educational tool based on an assessment of the current scientific and clinical information and accepted approaches to treatment. The recommendations in this guideline are not intended to be a fixed protocol as some patients may require more or less treatment or different means of diagnosis. Patients seen in clinical practice may not be the same as those found in a clinical trial. Patient care and treatment should always be based on a clinician's independent medical judgment given the individual clinical circumstances.

### **Disclosure Requirement**

In accordance with AAOS policy, all individuals whose names appear as authors or contributors to this clinical practice guideline filed a disclosure statement as part of the submission process. All panel members provided full disclosure of potential conflicts of interest prior to beginning work on the recommendations contained within this clinical practice guideline.

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### **FDA Clearance**

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First Edition

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## SUMMARY OF RECOMMENDATIONS

The following is a summary of the recommendations of the AAOS-ADA clinical practice guideline, Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures. This summary does not contain rationales that explain how and why these recommendations were developed, nor does it contain the evidence supporting these recommendations. All readers of this summary are strongly urged to consult the full guideline and evidence report for this information. We are confident that those who read the full guideline and evidence report will see that the recommendations were developed using systematic evidence-based processes designed to combat bias, enhance transparency, and promote reproducibility. This summary of recommendations is not intended to stand alone. Treatment decisions should be made in light of all circumstances presented by the patient. Treatments and procedures applicable to the individual patient rely on mutual communication between patient, physician, dentist and other healthcare practitioners.

**1. The practitioner might consider discontinuing the practice of routinely prescribing prophylactic antibiotics for patients with hip and knee prosthetic joint implants undergoing dental procedures.**

**Grade of Recommendation: Limited**

Definition: A **Limited** recommendation means the quality of the supporting evidence that exists is unconvincing, or that well-conducted studies show little clear advantage to one approach versus another. Evidence from two or more “Low” strength studies with consistent findings, or evidence from a single Moderate quality study recommending for or against the intervention or diagnostic.

Implications: Practitioners should be cautious in deciding whether to follow a recommendation classified as **Limited**, and should exercise judgment and be alert to emerging publications that report evidence. Patient preference should have a substantial influencing role.

**2. We are unable to recommend for or against the use of topical oral antimicrobials in patients with prosthetic joint implants or other orthopaedic implants undergoing dental procedures.**

**Grade of Recommendation: Inconclusive**

Definition: An **Inconclusive** recommendation means that there is a lack of compelling evidence resulting in an unclear balance between benefits and potential harm.

Evidence from a single low quality study or conflicting findings that do not allow a recommendation for or against the intervention.

Implications: Practitioners should feel little constraint in deciding whether to follow a recommendation labeled as **Inconclusive** and should exercise judgment and be alert to future publications that clarify existing evidence for determining balance of benefits versus potential harm. Patient preference should have a substantial influencing role. AAOS Clinical Practice Guideline Unit 4 v0.2 2.2.2012

**3. In the absence of reliable evidence linking poor oral health to prosthetic joint infection, it is the opinion of the work group that patients with prosthetic joint implants or other orthopaedic implants maintain appropriate oral hygiene.**

**Grade of Recommendation: Consensus**

Definition: A **Consensus** recommendation means that expert opinion supports the guideline recommendation even though there is no available empirical evidence that meets the inclusion criteria. The supporting evidence is lacking and requires the work group to make a recommendation based on expert opinion by considering the known potential harm and benefits associated with the treatment.

Implications: Practitioners should be flexible in deciding whether to follow a recommendation classified as **Consensus**, although they may set boundaries on alternatives. Patient preference should have a substantial influencing role. AAOS Clinical Practice Guideline Unit 5 v0.2 2.2.2012

## **TERMINOLOGY USED IN THIS GUIDELINE**

**Direct evidence** – Evidence that demonstrates a relationship between a dental procedure and orthopaedic implant infection.

**Indirect evidence** – Evidence that demonstrates a relationship between a dental procedure and a surrogate outcome (i.e. bacteremia).

**Incidence** – New cases of a disease that occur in an at-risk population during a specified time period (i.e. a new bacteremia after a dental procedure)

**Prevalence** – Existing cases of a disease in a population during a specified time period (i.e. a bacteremia that exists prior to a dental procedure)

**Case-control study** – Comparison of a diseased group (cases) to a group without disease (controls)

**Surrogate Outcome** – An outcome (such as a laboratory measurement) that is used as a substitute for a clinically relevant patient centered outcome

**High, Moderate, and Low Strength Studies** – Derived from quality and applicability analysis; integrating multiple domains composed of questions related to study design and methods (See Appraising Evidence Quality and Applicability)