

Anitbiotic Prophylaxis Recommendations

Table 1

Primary Reasons for Revision of Infective Endocarditis Guidelines

1. IE is much more likely to result from frequent exposure to random bacteremias associated with daily activities than from bacteremias caused by a dental, GI tract or GU tract procedure.
2. Prophylaxis may prevent an exceedingly small number of cases of IE, if any, in individuals who undergo a dental, GI tract or GU tract procedure.
3. The risk of antibiotic-associated adverse events exceeds the benefit, if any, from prophylactic antibiotic therapy.
4. Maintenance of optimal oral health and hygiene may reduce the incidence of bacteremia from daily activities and is more important than prophylactic antibiotics for a dental procedure to reduce the risk of IE.

Table 2

Medical Conditions for Which Endocarditis Prophylaxis is Recommended:

Premedication is recommended **ONLY** for patients with the following conditions associated with the highest risk of adverse outcomes from endocarditis:

1. Prosthetic cardiac/heart valve.
2. History of IE.
3. Cardiac transplant recipients who develop valve pathology.
4. One of the following congenital heart diseases:
 - Unrepaired cyanotic CHD, including palliative shunts and conduits.
 - Completely repaired congenital heart defects with prosthetic material or device, whether placed by surgery or by catheter intervention, **during the first six months after placement of the material or device (because endothelialization of prosthetic material occurs within six months after the procedure).**
 - Repaired CHD with residual defects at, or adjacent to, the site of a prosthetic patch or prosthetic device (which inhibits endothelialization).
5. Special situations and circumstances:
 - **Patients already receiving antibiotics**—Occasionally, a patient may be taking an antibiotic when coming for a dental appointment. If the patient is taking an antibiotic normally used for endocarditis prophylaxis, it is prudent to select a drug from a different class rather than increase the dose of the current antibiotic. If possible, you should delay the dental procedure until at least 10 days after completion of the antibiotic. This will allow for the usual oral flora to be re-established. If an individual receiving long-term parenteral antibiotic therapy for IE requires dental treatment, the treatment should be timed to occur 30 to 60 minutes after the parenteral antibiotic therapy has been delivered.
 - **Failure to administer pretreatment antibiotic dose**—If the dosage of an antibiotic is inadvertently not administered before the procedure, the dosage may be administered up to two hours after the procedure. However, administration of the dosage after the procedure should be considered only when the patient did not receive the preprocedure dose.
 - **Individuals with kidney dialysis shunts**—Individuals with permanent kidney dialysis shunts should be placed on prophylactic antibiotics using the same protocol as for IE.

Table 3

Dental Procedures for Which Antibiotic Prophylaxis is Reasonable

- Dental extractions
- Periodontal procedures, including surgery, subgingival placement of antibiotic fibers/ strips, scaling and root planing, prooving, recall maintenance
- Dental implant placement
- Replantation of avulsed teeth
- Endodontic (root canal) instrumentation only if beyond the root apex and endodontic surgery
- Initial placement of orthodontic bands (not brackets)
- Intraligamentary and intraosseous local anesthetic injections
- Postoperative suture removal (in selected circumstances that may create significant bleeding)
- Prophylactic cleaning of teeth or implants where bleeding is anticipated

Table 4

Patients at Potential Risk of Experiencing Hematogenous Total Joint Infection¹⁹

Patient Type	Condition Placing Patient at Risk
All patients during first two years following joint replacement	N/A
Immunocompromised/immunosuppressed patients	Inflammatory arthropathies such as rheumatoid arthritis, systemic <i>lupus erythematosus</i> Drug or radiation-induced immunosuppression
Patients with comorbidities <i>(Conditions listed for patients in this category are examples only; there may be additional conditions that place such patients at risk of experiencing hematogenous total joint infection)</i>	Malnourishment Hemophilia HIV infection Insulin-dependent (type 1) diabetes Malignancy

Table 5

Suggested Patient Type, Drug and Regimen for Antibiotic Prophylaxis for Total Prosthetic Joint Infection

Patient Type	Drug	Regimen*
Patients not allergic to penicillin	Cephalexin, cephadrine or amoxicillin	2g orally 1 hour prior to dental procedure
Patients not allergic to penicillin and unable to take oral medication	Cefazolin or ampicillin	Cefazolin 1g or ampicillin 2g IM or IV 1 hour prior to dental procedure
Patients allergic to penicillin	Clindamycin	600mg orally 1 hour prior to dental procedure
Patients allergic to penicillin and unable to take oral medication	Clindamycin	600mg IV 1 hour prior to dental procedure

*Note: No second doses are recommended for any of these dosing regimens.