Antibiotic Prophylaxis – Infective endocarditis prevention Guidelines

**Questions to Ask / Necessary Information**

Current guidelines recommend that only individuals who are at the highest risk of an adverse outcome of endocarditis receive antibiotic prophylaxis.

Individuals who should be identified through careful review of the health history are those with:

1. Prosthetic cardiac valves or prosthetic material used in valve repair
2. Previous infective endocarditis (IE)
3. Congenital heart disease (CHD) with findings as below
   a. Unrepaired cyanotic CHD, including palliative shunts and conduits
   b. Completely repaired CHD defect with prosthetic material or device for first 6 months after procedure
   c. Repaired CHD with residual defects at the site or adjacent to site of prosthetic patch/device which inhibit endothelialization
4. Cardiac transplantation recipients who develop cardiac valvulopathy

**Risk for Medical Emergency**

Bacterial infection of heart/heart valves secondary to invasive dental treatment

**Pertinent Laboratory Information**

N/A

**Prophylaxis Recommendations**

**Dental Procedures for Which IE Prophylaxis is Recommended:**

All dental procedures that involve "manipulation of gingival tissue or periapical region (root-end) of teeth or perforation of the oral mucosa."

**Dental Procedures for Which IE Prophylaxis is NOT Recommended:**

a. routine anesthetic injection through non-infected tissue
b. placement of removable appliances
c. placement of orthodontic brackets
d. bleeding from trauma to lips/mucosa
e. taking dental radiographs
f. adjustment of orthodontic appliances
g. shedding of deciduous teeth
Management For Dental Treatment

Preoperative Management:
1. If a patient is already receiving chronic antibiotic therapy with an antibiotic that is also recommended for IE prophylaxis for a dental procedure, it is prudent to select an antibiotic from a different class rather than to increase the dosage of the current antibiotic.

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>AGENT</th>
<th>REGIMEN: SINGLE DOSE 30-60 MINUTES BEFORE PROCEDURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Amoxicillin</td>
<td>2 grams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 milligrams per kilogram</td>
</tr>
<tr>
<td>Unable to Take Oral Medication</td>
<td>Ampicillin OR</td>
<td>2 g IM* or IV†</td>
</tr>
<tr>
<td></td>
<td>Cefazolin or</td>
<td>1 g IM or IV</td>
</tr>
<tr>
<td></td>
<td>Ceftriaxone</td>
<td></td>
</tr>
<tr>
<td>Allergic to Penicillins or Ampicillin Oral</td>
<td>Cephalexin‡ OR</td>
<td>2 g</td>
</tr>
<tr>
<td></td>
<td>Clindamycin OR</td>
<td>600 mg</td>
</tr>
<tr>
<td></td>
<td>Azithromycin or</td>
<td>500 mg</td>
</tr>
<tr>
<td></td>
<td>Clarithromycin</td>
<td></td>
</tr>
<tr>
<td>Allergic to Penicillins or Ampicillin and</td>
<td>Cefazolin or</td>
<td>1 g IM or IV</td>
</tr>
<tr>
<td>Unable to Take Oral Medication</td>
<td>Ceftriaxone‡</td>
<td>600 mg IM or IV</td>
</tr>
<tr>
<td></td>
<td>Clindamycin</td>
<td>20 mg/kg IM or IV</td>
</tr>
</tbody>
</table>

* IM: Intramuscular.  
† IV: Intravenous.  
‡ Or other first- or second-generation oral cephalosporin in equivalent adult or pediatric dosage.  
§ Cephalosporins should not be used in a person with a history of anaphylaxis, angioedema or urticaria with penicillins or ampicillin.

2. A 2-g dose of amoxicillin should produce an acceptable MIC requirement of 0.2 µg/mL. If procedure lasts longer than 6 hours it may be prudent to administer an additional 2g dose of Amoxicillin.

Intraoperative Management:
1. A 2-g dose of amoxicillin should produce an acceptable MIC requirement of 0.2 µg/mL. If procedure lasts longer than 6 hours it may be prudent to administer an additional 2g dose of Amoxicillin.

Postoperative Management:
1. If antibiotic prophylaxis is inadvertently missed a dose may be administered up to 2 hours after the procedure.
2. Encourage maintenance of optimal oral hygiene in all patients at increased risk for IE.
# Oral Manifestations

Petechiae of the buccal and palatal mucosa

## References


The complete America Heart Association article can be downloaded from:  
[http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.106.183095](http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.106.183095)  