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Summary of Major Changes in Updated Infective Endocarditis (IE) April 2007

- Bacteremia resulting from daily activities is much more likely to cause IE than bacteremia associated with dental procedure.
- Only an extremely small number of cases of IE might be prevented by antibiotic prophylaxis even if prophylaxis is 100% effective.
- Antibiotic prophylaxis is not recommended based solely on an increased lifetime risk of acquisition of IE.
- Limit recommendations for IE prophylaxis only to those cardiac conditions listed below
- Antibiotic prophylaxis is no longer recommended for any other form of CHD, except for the conditions listed below
- Antibiotic prophylaxis is recommended for all dental procedures that involve manipulation of gingival tissues or periapical region of teeth or perforation of oral mucosa only for patients with underlying cardiac conditions associated with the highest risk of adverse outcome for IE- listed below
- Antibiotic prophylaxis is recommended for procedures on respiratory tract or infected shin, skin structures or musculoskeletal tissue only for patients with underlying cardiac conditions associated with highest risk of adverse outcome for IE-listed below
- Antibiotic prophylaxis solely to prevent IE is not recommended for GI OU GU tract procedures
- The writing group reaffirms the procedures noted in the 1997 prophylaxis guidelines for which endocarditis prophylaxis is not recommended, and extends this to other common procedures including ear piercing and body piercing, tattooing, and vaginal delivery and hysterectomy.

Cardiac Conditions Associated With the Highest Risk of Adverse Outcome From Endocarditis for Which Prophylaxis With Dental Procedures Is Recommended(April 2007)

- Prosthetic cardiac valve
- Previous infective endocarditis
- Congenital heart disease (CHD) *
  - Unrepaired cyanotic CHD, including palliative shunts and conduits
  - Completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention during the first six months after the procedure**
  - Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)
- Cardiac transplantation recipients who develop cardiac valvulopathy

* Except for the conditions listed above, antibiotic prophylaxis is no longer recommended for any other form of CHD
** Prophylaxis is recommended because endothelialization of prosthetic material occurs within 6 months after the procedure

Dental Procedures For Which Endocarditis Prophylaxis Is Recommended For

All dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa *

* The following procedures and events do not need prophylaxis: routine anesthetic injections through noninfected tissue, taking dental radiographs, placement of removable prosthodontic or orthodontic appliances, adjustment of orthodontic appliances, placement of orthodontic brackets, shedding of deciduous teeth and bleeding from trauma to the lips or oral mucosa.

Revised 6/07

SBE Prophylactic Regimens For Dental, Oral, Respiratory Tract, Or Esophageal Procedures April 2007

(No Follow-up Dose Recommended)

Situation	Agent	*(Single Dose 30-60 minutes before procedure)* Adult Regimen (Total dose should not exceed adult dose)	Children's Regimen
1. Not allergic to penicillin	Amoxicillin	2.0g	50 mg/kg
2. Not allergic to penicillin and unable to take oral medications	Ampicillin or Cefazolin or Ceftriaxone	2.0g IM or IV 1.0g IM or IV	50 mg/kg IM or IV 50 mg/kg IM or IV
3. Allergic to penicillins or ampicillin	Cephalexin* or Clindamycin or Azithromycin or Clarithromycin	2.0g 600 mg 500mg	50 mg/kg 20 mg/kg 15 mg/kg
4. Allergic to penicillins or ampicillin and unable to take oral medication	Cefazolin or Ceftriaxone or Clindamycin	1.0g IM or IV 600mg IM or IV	50 mg/kg IM or IV 20 mg/kg IM or IV

Prosthetic Joints, Dental Treatment, And Antibiotic Prophylaxis (July 2003)

Stratification Of The Incidence Of Bacteremia Associated With Dental Procedures

Higher Incidence

Dental extractions: Periodontal procedures including surgery, subgingival placement of antibiotic fibers/strips, scaling and root planning, probing, recall maintenance: Dental implant placement and replantation of avulsed teeth: Endodontic instrumentation or surgery only beyond the apex: Initial placement of orthodontic bands but not brackets: Intraligamentary and intraosseous local anesthesia injections: Prophylactic cleaning of teeth or implants where bleeding is anticipated

Lower Incidence

Restorative, operative, or prosthetic dentistry with/without retraction cord: Local anesthetic injections (nonintraligamentary and nonintraosseous): Intracanal endodontic therapy; Post Placement & buildup: Rubber dam placement: Postoperative suture removal: Placement or removable prosthodontic/orthodontic appliances: Taking of oral impressions: Fluoride treatments: Taking of Intraoral radiographs: Orthodontic appliance adjustment:

PATIENTS WITH A POTENTIAL FOR INCREASD RISK OF HEMATOGENOUS TOTAL JOINT INFECTION

All Joint replacement patients: first 2 years

Immunocompromised patients

- Drug/radiation-induced suppression
- Inflammatory arthropathies
  - Rheumatoid arthritis
  - Systemic lupus erythematosus

Patients with comorbidities

- Insulin-dependent diabetics (type 1)
- Hemophiliacs
- Malnourished patients
- Previous prosthetic joint infection
- HIV infection
- Malignancy

ADA/AAOS ANTIBIOTIC PROPHYLAXIS REGIMENS

1. Patients not allergic to penicillin	2.0 g amoxicillin or cephalexin or cephradine 1 hour before procedure; No follow-up dose
2. Patients allergic to penicillin	600 mg clindamycin 1 hour preoperatively
3. Patients unable to take oral medications	1.0 g cefazolin or 2.0 g ampicillin IM/IV 1 hour before procedure
4. Patients allergic to penicillin and unable to take oral medications	600 mg clindamycin, IV 1 hour preoperatively

* ***Cephalosporins should not be used in individuals with immediate type hypersensitivity reaction (urticaria, angioedema, or anaphylaxis) to penicillins.***

reference: Jerome P. Rothstein, DDS *Prosthetic Joints, Dental Treatment, and Antibiotic Prophylaxis* Dentistry Today July 99
JADA, Vol. 134, July 2003 , AHA guidelines April 2007