

## ANTIMICROBIAL TREATMENT BEFORE DENTAL PROCEDURES IN PATIENTS WITH BACTERIAL ENDOCARDITIS

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### ABSTRACT

Infective endocarditis is a rare condition with significant morbidity and mortality. It may arise following bacteraemia in a patient with a predisposing cardiac lesion. In an attempt to prevent this disease, over the past 50 years, at-risk patients have been given antibiotic prophylaxis before dental procedures.

### INTRODUCTION:

Some of the antibiotics are presented as prophylaxis of infective endocarditis in patients at risk with rheumatic, inherited or acquired heart disease who are undergoing invasive dental procedures. The prophylaxis is of a high importance in order to be reduced the risk of bacteraemia after dental procedures.

Our goal is to present the most commonly used prescriptions in dentistry to be in favor of dental practitioners when choosing the antibiotic prophylaxis for patients at risk.

### PRESCRIPTIONS:

#### ADULTS

Rp. Amoxicillin caps. 500 mg (Duomox, Amopen, Ospamox)

D.t.d. 4 caps.

S. 4 caps. (2 g) p.o., 1 hour before the dental procedure\*

Note: Standart prophylaxis scheme of infective endocarditis in adults and children > 30 kg

#### ADULTS WHO CANNOT TAKE ORAL MEDICATION

Rp. Ampicillin fl. 1 000 mg (Ampicillin, Standacillin)

D.t.d. 1 000 mg, diluted 1:4 in sterile saline solution

S. 2 g i.m.or i.v. 30 min before the dental procedure\*

#### ADULTS ALLERGIC TO PENICILLIN

Rp. Clindamycin caps. 300 mg (Dalacin C, Clindamycin MIP 300)

D.t.d. 2 caps

S. 2 caps p.o., 1 hour before the dental procedure\*

or

Rp. Cefadroxil caps. 500 mg (Biodroxil, Duracef)

D.t.d. 4 caps

S. 2 caps p.o., 1 hour before the dental procedure\*

Note: To be avoided in patients allergic to penicillin.

or

Rp. Azithromycin caps. 500 mg (Azatril, Azibiot, Sumamed)

D.t.d. 1 caps

S. 1 caps p.o., 1 hour before the dental procedure\*

\*Patients with high risk: half of the dose could be repeated 6 hours after the initial dose (exception is azithromycin, where a second dose is not necessary).

#### ADULTS ALLERGIC TO PENICILLIN AND CANNOT TAKE ORAL MEDICATION

Rp. Cefazolin fl. 1000 mg (Kefzol, Cefazolin)

D.t.d. 1 000 mg fl.

S. 1 000 mg i.m. or i.v. 30 min before the dental procedure\*

#### CHILDREN

Rp. Amoxicillin powder for oral suspension 125 mg/5 ml or 250 mg/5 ml (Amopen, Ospamox)

D.t.d. 60 ml fl.

S. 50 mg/kg p.o. 1 hour before the dental procedure\*

Note: Standart prophylaxis scheme of infective endocarditis in children >30 kg. The initial dose amoxicillin could be calculated according to patients body weight: < 15 kg, 750 mg; 15-30 kg, 1000 mg; >30 kg, 2000 mg

**CHILDREN ALLERGIC TO PENICILLIN**

Rp. Cefadroxil fl. powder for oral suspension 250 mg/5 ml (Duracef)

D.t.d. 60 ml fl.

S. 50 mg/kg p.o. 1 hour before the dental procedure

Note: To be avoided in patients allergic to penicillin

*or*

Rp. Azithromycin fl. powder for oral suspension 100 mg/ 5 ml or 200 mg/ 5 ml (Sumamed)

D.t.d. 20 ml fl.

S. 15 mg/kg p.o. 1 hour before the dental procedure

**CHILDREN ALLERGIC TO PENICILLIN AND CANNOT TAKE ORAL MEDICATION**

Rp. Cefazolin fl. 500 mg (Kefzol)

D.t.d. 500 mg fl.

S. 25 mg/kg g i.m. or i.v. 1 hour before the dental procedure

**PATIENTS WITH HIGH RISK**

Rp. Ampicillin fl. 1 000 mg (Ampicillin, Standacillin)

D.t.d. 1 000 mg fl., diluted 1:4 in sterile saline solution

S. 2 g i.m. or i.v. 30 min before the dental procedure

*together with*

Rp. Gentamycin fl. 40 mg/ml; 80 mg/2 ml (Gentamycin)

D.t.d. according to be body weight

S. 1.5 mg/kg (do not exceed 120 mg) i.m. or i.v. 30 min before the dental procedure

*6 hours later*

Ampicillin 1 000 mg/100 ml i.m. or i.v. or Amoxicillin 1 000 mg p.o.

**PATIENTS WITH HIGH RISK, ALLERGIC TO AMPICILLIN AND AMOXICILLIN**

Rp. Vancomycin fl. 1000 mg (Vancocin)

D.t.d. 1 000 mg

S. 1 000 mg i.v. to be applied for 1-2 hours.

*together with*

Rp. Gentamycin fl. 40 mg/ml; 80 mg/2 ml (Gentamycin)

D.t.d. according to the body weight

S. 1.5 mg/kg (do not exceed 120 mg) i.m. or i.v. 30 min before the dental procedure

**PATIENTS WITH RISK**

Rp. Amoxicillin caps. 500 mg (Duomox, Amopen, Ospamox)

D.t.d. 4 caps

S. 2 g p.o. 1 hour before the dental procedure\*

*together with*

Rp. Ampicillin fl. 1 000 mg (Ampicillin, Standacillin)

D.t.d. 2 fl. 1 000 mg

S. 2 g i.m. or i.v. 30 min before the dental procedure\*

**PATIENTS WITH RISK, ALLERGIC TO AMPICILLIN AND AMOXICILLIN**

Rp. Vancomycin fl. 1 000 mg (Vancocin)

D.t.d. 1 fl. 1 000 mg

S. 1 g to be applied slowly for about 1-2 hours i.v. 30 min before the dental procedure\*

**PATIENTS WITH HIGH RISK – CHILDREN**

Rp. Ampicillin fl. 1 000 mg (Ampicillin, Standacillin)

D.t.d. 2 fl. 1 000 mg

S. 50 mg/kg i.v. or i.m. (do not exceed 120 mg) 30 min before the dental procedure\*

*together with*

Rp. Gentamycin fl. 40 mg/ml; 80 mg/2 ml (Gentamycin)

D.t.d. according to the body weight

S. 1,5 mg/kg (do not exceed 120 mg) i.m. or i.v. 30 min before the dental procedure.

*6 hours later*

Ampicillin 25 mg/kg i.m. or i.v. or Amoxicillin 25 mg/kg p.o.

**PATIENTS WITH HIGH RISK - CHILDREN, ALLERGIC TO AMPICILLIN AND AMOXICILLIN**

Rp. Vancomycin fl. 1000 mg (Vancocin)

D.t.d. 1 fl. 1 000 mg

S. 20 mg/kg i.v. to be applied for 1-2 hours.

*together with*

Rp. Gentamycin fl. 40 mg/ml; 80 mg/2 ml (Gentamycin)

D.t.d. according to the body weight

S. 1,5 mg/kg (do not exceed 120 mg) i.m. or i.v. 30 min before the dental procedure.

**PATIENTS WITH RISK – CHILDREN**

Rp. Ampicillin fl. 1 000 mg (Ampicillin, Standacillin)

D.t.d. 1 fl. 1 000 mg

S. 50 mg/kg i.m. or i.v. 30 min before the dental procedure.\*\*

**PATIENTS WITH RISK – CHILDREN,  
ALLERGIC TO AMPICILLIN AND AMOXICILLIN**

Rp. Vancomycin fl. 1000 mg (Vancocin)

D.t.d. 1 fl. 1 000 mg

S. 20 mg/kg i.v. to be applied for about 1-2 hours  
30 min before the dental procedure. ++

++Total dose for children should not exceed the dose  
for adults.

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