

Kommentar til artiklen:

”Prophylactic use of antibiotics in dentistry”

af Riina Richardson, Elina Ketovainio og Asko Järvinen i Tandlægebladet 2012;116:16-20.

Profylaktisk anvendelse af antibiotikum i Danmark

Tove Larsen og Anne Havemose Poulsen, Københavns Universitet

Artiklen angives forskellige administrationsformer af profylaktisk antibiotikum, både som en præoperativ éngangsdosis og som længerevarende præ- eller postoperative doseringer. Formålet med profylaktisk administration af antibiotikum er at forebygge opståen af systemiske infektioner (som følge af bakteriæmi) i forbindelse med indgreb i mundhulen hos personer i særlige risikogrupper. Indgreb, der medfører blødning som fx pochemåling, subgingival depuration og præparation, kirurgi samt ekstraktioner, vil uvægerligt resultere i bakteriæmi med orale bakterier. Rationalet bag profylaktisk administration af antibiotikum er at eliminere disse bakterier, inden de forårsager infektioner. Dette opnås ved en éngangsdosering af antibiotikum præoperativt for at opnå høje koncentrationer i blodet under indgrebet og i de efterfølgende timer. Længerevarende administration af antibiotikum hører derimod til i en terapeutisk sammenhæng, fx ved akutte tilstande med påvirket almentilstand eller spredningsrisiko og ved behandling af aggressiv parodontitis. Drejer det sig om patienter med immunologiske sygdomme, må administrationen foretages i samarbejde med behandlende læge, evt. i hospitalsregi.

I Danmark foreligger der eksakte anbefalinger ved risiko for infektiøs endocarditis. Amoxicillin er første valg som profylaktisk antibiotikum. Her gives 2 g én time inden indgreb med risiko for blødning. Ved penicillinallergi anbefales Roxithromycin 300 mg (se de eksakte rekommandationer for endocarditisprofylakse på www.cardio.dk under infektiøs endocarditis). Alternativt og på andre indikationer kan clindamycin anvendes ved penicillinallergi. Der er ikke indikation for at kombinere flere antibiotika eller for at anvende cefalosporiner, som angivet i artiklen. I disse år ses en bekymrende stigning i anvendelsen af bredspektrede antibiotika og samtidig i forekomsten af multiresistente bakterier i Danmark. Som del af den danske sundhedssektor har tandlæger et medansvar for at bremse denne udvikling ved en restriktiv anvendelse af profylaktiske såvel som terapeutiske antibiotika.

For yderligere information henvises til ”Vejledninger 2010” (Vejledning A14 og A15) på Afdeling for Parodontologi, Odontologisk Institut, Københavns Universitet: http://www.odont.ku.dk/fagomr/sekstion1/parodontologi/vejledninger_2010/

Svar til Tove Larsens og Anne Havemose Poulsens faglige kommentar:

”Profylaktisk anvendelse af antibiotikum i Danmark”

Riina Richardson on behalf of all authors

We thank Dr. Larsen and Dr. Poulsen for their comment on our article “Prophylactic use of antibiotics in dentistry” in Tandlægebladet 2012; 116:16-20. The aim of the Nordic theme issues is to promote discussion on important dental topics in addition to sharing local experience and it seems we have succeeded in this. However, this time there appears to be some misunderstanding of our main message and the focus of our article. We fully agree with Dr. Larsen and Dr. Poulsen that antibiotics are still being used in dentistry unnecessarily, and as a replacement for appropriate dental surgical interventions. Our article was an abstract of the

Finnish Current Care National Guidelines Antibiotics in Dentistry guideline published last year. It appears that some elements have been taken out of context.

Firstly, endocarditis prophylaxis was excluded from the guideline and our article since, as highlighted by Larsen & Poulsen, there are excellent current international guidelines on this topic. Our article did not address this topic. Instead, we provided guidance on the need for antibiotic prophylaxis in patient groups which are not covered in the endocarditis prophylaxis guidelines and who may have an increased risk for other systemic infection complications beyond endocarditis, such as

severely immunocompromised patients for sepsis. For these patients, the need for prophylaxis is traditionally evaluated on a case by case basis by infectious diseases specialists and there is great variation between centres. Therefore two medical colleagues, specialists in infectious diseases (general ID and paediatric ID) were included in our guideline team. This was to ensure that the use of antibiotics is in line with the treatment protocols for infections such as sinusitis, for this cohort of patients. Our guideline is based on a full professional literature review, where possible.

Secondly, the list of antibiotics recommended in the guideline is based on local epidemiology of over 6000 patient samples from Finland. Based on breakthrough infections and susceptibility data the use of roxithromycin could not be recommended in our country at present. Instead, 1st generation cephalosporins were selected as their spectrum of activity includes oral pathogens and is similar to that of roxithromycin. Antimicrobial resistance trends need to be kept under surveillance and the

guidance updated if significant changes are detected. Nevertheless, the spectrum of 1st generation cephalosporins differs significantly from that of the newer agents linked to *C. difficile* infections and other drug related problems, such that there are no grounds for a ban on these agents.

Finally, as clearly stated in the full guideline, the primary treatment of all dental infections is dental surgery and antibiotics are indicated only in specific cases. Antibiotic treatment can never replace appropriate surgical dental treatment and commencing antibiotic treatment does not justify postponing appropriate dental care. In immunocompetent patients antibiotic prophylaxis is mainly indicated prior to surgical intervention of dental infections whenever antibiotic treatment is indicated. Immunocompromised patients have a higher risk for systemic infection complications and prophylactic use of antibiotics has a lower threshold for use in these patient groups than in patients having cardiac abnormalities with normal immunity.

Erratum

Ani Lakoma, Finnish Editoriak Office

Richardson R, Ketovainio E, Järvinen A. Prophylactic use of antibiotics in dentistry was published in Danish Dental Journal 2012;116 (No.1):16-20. Table 2 in the publication was inserted in error. The intention of the authors was that each Nordic country would insert their local guidance as Table 2. The authors

do not suggest any changes regarding indications for endocarditis prophylaxis. The correct Table 2 for Sweden/Norway/Denmark is below.

The Finnish editorial office, which was responsible for the common Nordic theme of the year is sorry for the confusion.

Indications for endocarditis prophylaxis in connection with invasive dental procedures.

Prophylaxis against infective endocarditis is recommended for the following patients:

Patients with prosthetic cardiac valves or prosthetic material used for cardiac valve repair

Patients with previous infective endocarditis

Unrepaired cyanotic CHD, including palliative shunts and conduits

Completely repaired congenital heart defect repaired with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure

Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (both of which inhibit endothelialization)

Cardiac transplant recipients with valve regurgitation due to a structurally abnormal valve.

Table 2. Reference

Nishimura RA, Carabello BA, Faxon DP et al. ACC/AHA 2008 Guideline update on valvular heart disease: focused update on infective endocarditis: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines endorsed by the Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. *J Am Coll Cardiol* 2008; 52: 676–85.