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# Important Changes to Endocarditis Prevention Guidelines

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Guidance on infective endocarditis (IE) prevention for dental professionals has dramatically changed and will particularly impact dental hygienists and therapists.

IE is a serious infection of the heart valves. Thirty percent of patients die within one year of diagnosis and survivors have serious long-term health problems.(1) Oral bacteria are implicated in 35-45% of IE cases.(2) Prior to 2008, UK guidelines recommended antibiotic prophylaxis (AP) before invasive dental procedures for patients at increased IE risk. In 2008, however, NICE made the highly contentious decision to recommend against all use of AP for IE prevention: *“Antibiotic prophylaxis against infective endocarditis is not recommended for people undergoing dental procedures.”* Dental professionals working for the NHS were contractually required to follow NICE guidance and compliance with the guidance to stop AP was very high.(3) However, the UK was unique in this recommendation. All other international guideline committees recommended that individuals at high risk of IE (those with a previous history of IE, patients with prosthetic heart valves, patients with untreated cyanotic congenital heart disease (CHD), for 6-months after CHD repair or lifelong if residual shunts or conduits remain, and patients with ventricular assist devices) should receive AP before at-risk dental procedures – any procedure involving manipulation of the gingival or periapical region of the teeth.(4, 5)

Recent research has reinforced the recommendations of international guideline committees and these developments persuaded NICE to change the wording of its guidance. It now reads: *“Antibiotic prophylaxis against infective endocarditis is not recommended routinely for people undergoing dental procedures. For advice on antibiotic prophylaxis for people at high risk of infective endocarditis undergoing dental procedures and for relevant patient information, see the Scottish Dental Clinical Effectiveness Programme’s (SDCEP) implementation advice on antibiotic prophylaxis against infective endocarditis.”*(6)

For the first time, NICE has acknowledged the existence of high-risk individuals who may benefit from AP. It has also for the first time signposted all UK dental professionals to use the SDCEP implementation advice, which SDCEP updated on the 24<sup>th</sup> March, at: [www.antibioticprophylaxis.sdcep.org.uk](http://www.antibioticprophylaxis.sdcep.org.uk)

Taken together, the updated NICE guidelines and SDCEP implementation advice have completely transformed UK guidance. We have gone from recommending against all AP, to *“AP is recommended for all high-risk patients undergoing extractions and oral surgery procedures and should be considered for procedures that involve manipulation of the gingival or periapical region of the teeth”*.(7)

Importantly for dental hygienists and therapists, the new SDCEP advice makes clear that all scaling procedures, the basic periodontal exam and many other procedures they perform should now be considered for AP cover in high-risk patients.(7)

In these situations, SDCEP recommends a single 2g or 3g oral dose of amoxicillin be given 30-60 mins before the procedure for high-risk adults with no history of penicillin allergy. For those with a history of allergy, a single 500mg oral dose of clarithromycin or azithromycin is recommended instead – see the SDCEP advice for further details.(7)

As part of informed consent, it is important dental professionals identify high-risk individuals and discuss the risks posed by dental procedures as well as the risks and benefits of AP. A recent BDJ article and the SDCEP web site provide further details on this.(7, 8)

This is a change with massive implications for all dental professionals. Finally, it brings UK guidance in-line with guidance in the rest of the world. It is essential all dental professionals are aware of this change and the huge implications for their clinical practice. This change needs to be implemented as quickly as possible to help protect high-risk individuals from any unnecessary risk of developing this devastating disease.

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