9th November 2016

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| ***Angus Walls, Director*** |
| **All Clinicians within NHSL Oral Health Service** | **4th Floor, Lauriston Building****Lauriston Place****Edinburgh EH3 9HA** [**www.dentistry.ed.ac.uk**](http://www.dentistry.ed.ac.uk)Email: angus.walls@ed.ac.uk |

Dear Colleague

Re **Antimicrobial prophylaxis against infective endocarditis**

You may have seen the recent opinion piece in the BDJ bringing the professions attention to a change in the wording of the NICE guideline on prophylaxis against infective endocarditis. NICE has inserted the word “routinely” into the guidance.

The meaning of this change is at present uncertain as NICE have currently refused to clarify what is NOT a routine procedure. Clarification has been sought by the Chief Dental Officer in Scotland via SDCEP initially and now through her own office but at present there is no clear understanding of what this change means.

I have also been made aware of updated guidance from the defence organisations in relation to this change. Their view is that when a Consultant Cardiologist or Cardiothoracic surgeon has told us that it is appropriate for a patient to receive prophylaxis then this SHOULD be given (see Appendix 1 for a broad categorisation of conditions with high risk).

There are a number of things that we should be doing now for all people who are at high risk of infective endocarditis which include a discussion of :

* the benefits and risks of antibiotic prophylaxis, and an explanation of why antibiotic prophylaxis is no longer routinely recommended (to ensure informed consent for treatment)
* the importance of maintaining good oral health
* the symptoms that may indicate infective endocarditis and when to seek expert advice

In view of the changes in the NICE guidance and the view of the defence organisations I would suggest that we need to change our policy as far as antimicrobial prophylaxis against infective endocarditis is concerned to give this for any patient where we have the opinion of their Cardiologist or Cardiothoracic Surgeon that it is necessary.

We (the dental team) should NOT attempt to assess “risk” on an individual basis in terms of the need for prophylaxis. If there is doubt then the opinion of the Cardiologist / Cardiothoracic Surgeon concerned needs to be sought.

Prophylaxis should be given using the European Cardiology Society guidance as below.

**Antimicrobial regimes for prophylaxis against infective endocarditis when deemed necessary by the patient’s Cardiologist or Cardiothoracic Surgeon.**

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| Situation | Antibiotic | Single dose 30-60 minutes prior to the procedure |
| Adults | Children under 16 |
| No allergy to penicillins | Amoxicillin or Ampicillin1 | 2g oral2 or IV | 50mg/kg oral or IV |
| Allergic to penicillins | Clindamycin | 600mg oral or IV | 20mg/kg oral or IV |
| 1 | Can also use Cephalexin 2g IV for adults or 50mg/kg IV for children, cefazolin or ceftriaxone 1g IV for adults or 50mg/kg IV for children. Cephalosporins should not be used in those with allergic reactions to penicillins |
| 2 | Should be given as 4x500mg capsules wherever possible |

All antibiotics need to be given in the dental surgery (clinic) premises and the patient needs to be observed during the time between taking the drugs and being seen by the dentist by a member of staff who has been trained to be aware of the signs of anaphylaxis. This can include administrative staff providing they have that training.

One of the challenges with any change in policy of this sort is knowing WHEN to use prophylaxis. The table below is based on recent article by Thornhill *et al* (2016a and 2016b)and is designed to give guidance.

**When should we give antimicrobial prophylaxis**

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| High Risk Procedures (so prophylaxis IS required) |
|  | Any procedure that involves manipulating the mucosa or the periapex including |
|  | Tooth scaling / hygiene phase therapy |
|  | Periodontal Surgery |
|  | Tooth Extraction or any other form of dento-alveolar surgery including implant placement |
|  | Placing a matrix band for a restoration |
|  | Placing a gingival retraction cord  |
|  | Placing a molar stainless steel band for orthodontic purposes |
|  | Endodontic procedures |
| Lower Risk Procedures (so prophylaxis is NOT required) |
|  | LA in/through non-infected tissue |
|  | Caries management that does not involve gingival manipulation |
|  | Removal of sutures |
|  | Dental radiographs |
|  | Placement of adjustment of removable prosthodontics appliances |
|  | Placement or adjustment of orthodontic appliances |
|  | Following natural shedding of he deciduous teeth |
|  | Following trauma to the lips or oral mucosa |

There are a number of clinicians in the service who have not been trained about the changes in treatment planning / treatment provision that are required when procedures need to be covered by antimicrobial prophylaxis. Essentially these involve planning care to do as much as possible in each clinical session when cover is provided and allowing a 4-week “wash out” period between appointments where cover is given to allow the levels of resistant bacteria that will develop in the mouth when such antibiotics are given to fall back to normal levels. For those who have not been involved in planning care in this way please discuss individual plans of care with senior colleagues who have. We need to continue to inform patients about the symptoms of IE and I have included the relevant pages from the NHS Choices web site as a pdf for you to inform these discussions

Please ensure that this notification is disseminated widely among your team and acted on with immediate effect.

With all my best

Angus Walls

Director NHS Lothian Oral Health Service

Thornhill M.H *et* al **Guidelines on prophylaxis to prevent infective endocarditis.** Brit Dent J 2016a; **220**: 51-56

Thornhill M.H. *et al* **A change in the NICE guidelines on antibiotic prophylaxis** Brit Dent J 2016b; **221**: 112-114

Appendix 1

Cardiac conditions where individuals may be at increased risk of IE and the patient (or their parent/gaurdian) should be asked whether any need for antimicrobial prophlyaxis has been raised by their Cardiologist / Cadiothoracic Surgeon

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| Patients at high risk include those who: |
|  | Have a previous history of infective endocarditis |
|  | Have ANY form of prosthetic heart valve (including “transcatheter” valves) |
|  | Have ANY form of prosthetic material used in cardiac valve repair |
|  | Have ANY type of cyanotic congenital heart disease |
|  | Have had any type of congential heart defect repaired with a prosthetic material whether placed surgically or by percutaneous techniques, for the first 6-months after surgery |
|  | Have had any type of congential heart defect repaired with a prosthetic material whether placed surgically or by percutaneous techniques, and who have a residual AV shunt or valvular regurgitation. |