Addendum to “Management and Root Canal Treatment of Non-vital Immature Permanent Incisor Teeth”

The following sections of existing guidelines were revised:

**Section 1.3.1**
Add as paragraph 8

*Mineral Trioxide Aggregate (MTA)*
The use of MTA may be considered in order to produce a hard tissue barrier at a single visit. Obturation of the canal then takes place at a subsequent visit.

(Evidence Level C)

**Explanatory Note**
Recently the use of mineral trioxide aggregate to create a hard tissue apical barrier in a single visit has been reported. Obturation of the canal can then be carried out at a subsequent second visit. The main advantage of this method is the considerably shorter treatment time. The initial published results of this method are very positive but are confined to case studies involving single or small numbers [1-5] or to animal studies [6], with relatively short follow up time. At present no known randomised control trials have been completed.

MTA reaches maximum hardness after 72 hours. Ideally obturation is carried out after this period.[7]

**Section 1.3.2 (Interim Visits)**
The word “usually” was deleted

**Explanatory note**
There is some evidence that increasing the frequency of calcium hydroxide changes increases the rate of formation of the apical barrier [8, 9]. It is recommended that calcium hydroxide is changed three monthly.

(Evidence Level B)

**Section 1.3.3 (GP Root Filling)**
Add as first paragraph.

Final obturation of the root canal is carried out as soon as possible following apical barrier formation. Prolonged dressing of the tooth with calcium hydroxide may be detrimental.

**Explanatory note**
Laboratory studies on animal teeth have shown significantly reduced fracture strength in immature teeth dressed with calcium hydroxide. Reduction in fracture strength was related to duration of the dressing [10]
References


