



Every cloud has a silver lining



Variant Creutzfeld–Jakob disease (vCJD) is an acquired form of transmissible spongiform encephalopathy. First reported in 1996, this fatal disease leads to the progressive destruction of the central nervous system. The infective agent is thought to be the altered form of the naturally occurring prion protein found in cell membranes. Prion proteins are more resistant to conventional disinfection and sterilisation techniques¹.

Amid concerns about significant risk of transmission of vCJD, a recent letter² from the Chief Dental Officer for England (CDO) advised against the re-use of endodontic instruments. Root canal instruments such as files are inherently more difficult to clean and decontaminate effectively³. Not unexpectedly, the guidance attracted generous media coverage and ignited much debate within the dental profession. Questions were even asked in the British Parliament⁴. As reported in the previous issue of ENDO⁵, the topic was also discussed at the seminar to launch this journal.

Many counter-arguments have emerged regarding the CDO's recommendation. One is that there is insufficient evidence to justify single use, as there are no known cases of transmission of vCJD due to instrument contamination. Another major concern is economics – the financial implication for both practitioners and patients. In an ideal world, cost should have no influence on treatment planning. In reality, however, cost may be a prime consideration. For treatment carried out under private contract, a fee increment may be necessary to cover the cost of having to dispose instruments after a single use. However, under the publicly funded National Health Service system, with fees for endodontic treatment that are already considered by many as paltry, unless additional funding is provided it can only serve as another disincentive to perform endodontic treatment

to save teeth. Practitioners may be faced with the extremely difficult ethical dilemma of having to decide whether to attempt endodontics if the cost involved is greater than the remuneration available.

Despite all the doom and gloom perceived by some, every cloud has a silver lining. Countless studies⁶ have shown that fractures of nickel-titanium rotary root canal instruments are related to, amongst other factors, the number of times they are used. Presumably, the implementation of single usage will now mean that the incidence of instrument breakages will be reduced. That surely is no bad thing!

There are still many unanswered questions about vCJD transmission. We aim to bring to your attention the scientific and clinical issues regarding this disease when they are clarified. In the meantime, we hope you will enjoy reading this latest issue of ENDO.

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References

1. National Institute for Health and Clinical Excellence. Patient safety and reduction of risk of transmission of Creutzfeldt–Jakob disease (CJD) via interventional procedures. London: NICE, November 2006.
2. Department of Health. Advice for dentists on re-use of endodontic instruments and variant Creutzfeld–Jakob disease (vCJD). [Letter from Chief Dental Officer]. London: Department of Health, 19 April 2007.
3. Walker JT, Dickinson J, Sutton JM, Rane NDH, Marsh PD. Cleanability of dental instruments – implications of residual protein and risks from Creutzfeld–Jakob disease. *Br Dent J* 2007;203:395-401.
4. Dentistry (vCJD). House of Commons Debates. Hansard, 23 May 2007.
5. Krupiński J. Conference Report. ENDO - Endodontic Practice Today, Seminar and Journal Launch. *ENDO (Lond Engl)* 2007;3:223-225.
6. Vautd J, Bitter K, Kielbassa AM. Evaluation of rotary root canal instrumentation in vitro: a review. *ENDO (Lond Engl)* 2007;1:189-203.