## COMMENTARY

## THE STERILITY OF DENTAL BURS DIRECTLY FROM THE MANUFACTURER

Ralph H. Leonard Jr, DDS, MPH\*

The purpose of this article was to determine the sterility of dental burs coming directly from the manufacturer. The authors' study design and methods were sound and conclusions straightforward. As pointed out in the article, manufacturers can opt to sterilize their burs prior to purchase by the dental provider. Eight percent of the unsterilized burs evaluated in this study showed growth of bacteria. Although there has been a limited amount of data documenting infection to humans from the bacteria contaminating the burs, the authors make a very strong argument that dental practitioners cannot take the risk of harming their patients by using contaminated burs.

This is a timely and highly relevant study, and brings to the forefront an area of infection control that we seldom think about. Additionally, the study goes in tandem with the most current CDC guidelines for dentistry. The CDC classifies any instrument that "penetrates soft tissue, contacts bone, enters into or contacts the bloodstream or other normally sterile tissue"<sup>1</sup> as critical and should be sterilized, and dental burs definitely fit into this category. Critical instruments have the greatest risk of transmitting infection to our patients. As our patients mature, become immunocompromised, and present with chronic illnesses, we must be cognizant of this fact and not place our patients at undue risk for an infection.

Currently, some dental manufacturers presterilize their burs and market them as such; however, this is not the standard of practice among dental manufacturers. One common practice of sterilization of burs from the manufacturer is the use of gamma rays. This method of sterilization does not dull the bur and thus would not decrease the cutting efficiency of the bur. If sterilized from the manufacturer, the dentist could then use the bur directly from the package. The dentist could either discard the bur or sterilize it for additional use. A potential follow-up study for the authors would be to verify that sterile burs shipped from the manufacturers are in fact sterile.

The question that should be posed is who should initially sterilize dental burs. In the true sense dental burs are not surgical burs, but for all practical purposes they are; therefore, they should come from the manufacturer sterilized. This would be in accordance with what some manufacturers are doing now not only for dental burs but also for surgical and disposable burs.

In summary, this is a thought-provoking and relevant article that presents a positive contribution to the infection control literature in dentistry. The study reminds all of us in dentistry that any instrument that penetrates tissue, including burs, should be sterilized before use on our patients.

## REFERENCE

1. CDC. Guidelines for infection control in dental health-care settings, 2003. MMWR 2003;52(No. RP-17):20-1.

\*Clinical associate professor, Department of Diagnostic Sciences and General Dentistry, UNC School of Dentistry, Chapel Hill, NC, USA

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