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Technical Report No. 1006

Infection Control For Dental Information Systems

A Technical Report prepared by the American Dental Association and registered with ANSI.

ADA American Dental Association®

2013

REVISED AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1006 FOR INFECTION CONTROL FOR DENTAL INFORMATION SYSTEMS

The Council on Dental Practice and Council on Scientific Affairs of the American Dental Association have approved American Dental Association Technical Report No. 1006 for Infection Control for Dental Information Systems. Working Groups of the ADA Standards Committee on Dental Informatics (SCDI) and ADA Standards Committee on Dental Products (SCDP) formulate this and other specifications and technical reports for the application of information technology and other electronic technologies to dentistry's clinical and administrative operations. The ADA SCDI and SCDP have representation from appropriate interests in the United States in the standardization of information technology and other electronic technologies used in dental practice. The ADA SCDI confirmed approval of ADA Technical Report No. 1065 on January 17, 2013. The ADA SCDP confirmed approval of ADA Technical Report No. 1065 on June 26, 2013.

Publication of this technical report that has been registered with ANSI has been approved by the American Dental Association, 211 E. Chicago Ave., Chicago, IL 60611. This document is registered as a technical report according to the *Procedures for the Registration of Technical Reports with ANSI.* This document is not an American National Standard and the material contained herein is not normative in nature. Comments on this document should be sent to the American Dental Association, 211 E. Chicago Ave., Chicago, IL 60611.

This technical report was prepared by the Joint SCDP/SCDI Working Group on Infection Control. The ADA SCDI and ADA SCDP thank the members of the Joint SCDP/SCDI Working Group on Infection Control and the organizations with which they were affiliated at the time this technical report was developed:

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FOREWORD

(This Foreword does not form a part of the Revised ADA Technical Report No. 1006 for Infection Control for Dental Informatics Systems.)

This revision revises and replaces ADA Technical Report No. 1006-2002. The technical report was revised to conform to the guidance contained in the *Centers for Disease Control and Prevention. Guidelines for Infection Control in Dental Health-Care Settings— 2003.*

REVISED AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1006 FOR INFECTION CONTROL FOR DENTAL INFORMATION SYSTEMS

SCOPE

This technical report provides general guidance for infection control measures to prevent transmission of potentially infectious microorganisms by information systems used in the dental setting. Devices and equipment specifically designed for dental use, including but not limited to digital radiography equipment, and devices intended for general use such as computer keyboards are addressed.

INFECTION CONTROL PRINCIPLES FOR DENTAL INFORMATICS

The 2003 Centers for Disease Control and Prevention (CDC) guidelines classify reusable patient-care items (dental instruments, devices, and equipment) as critical, semicritical, or noncritical, depending on the potential risk for infection associated with their intended use.

Critical items used to penetrate soft tissue or bone have the greatest risk of transmitting infection and if they are not single-use disposable items they should be sterilized by heat or other process that has been cleared to market for this purpose by the U.S. Food and Drug Administration (FDA). Components of some health informatics devices including periodontal probes or apex locators may be considered "critical" depending on their mode of use and extent of contamination with blood or other potentially infectious material (OPIM).

Semicritical items touch mucous membranes or nonintact skin and usually have a lower risk of disease transmission. Because the majority of semicritical items in dentistry are heat-tolerant, the CDC guideline recommends that they be sterilized by using heat and that heat sensitive items should, at a minimum, be processed with high-level disinfection.

Although the ideal would be for all semicritical items to be sterilizable, semicritical items that cannot be reprocessed by heat sterilization or high-level disinfection should, at a minimum, be barrier protected by using an FDA-cleared barrier to reduce gross contamination during use. Use of a barrier, when covering a device that is manipulated in the mouth, does not always protect from contamination. To minimize the potential for device-associated infections, after removing the barrier, the device should also be cleaned and disinfected with an EPA-registered hospital disinfectant (intermediate-level) after each patient. Manufacturers should be consulted regarding appropriate barrier and disinfection/sterilization procedures for digital radiography sensors, other high-technology intraoral devices, and computer components.

Devices such as, but not limited to, radiographic and photographic sensors, occlusal force analysis systems and pulp testers conform to the Spaulding Criteria for semicritical items. Since many devices such as radiographic sensors and cameras would be damaged by heat or by immersion in chemicals, disposable barriers that are impervious to fluids may provide the most practical way to avoid transmission of potentially infectious microorganisms. Semicritical device barriers must be cleared to market for their intended purpose by the FDA.

Noncritical patient-care items contact intact skin, which can serve as an effective barrier to microorganisms. Devices such as extraoral radiographic sensors and cables that do not enter the oral cavity pose the least risk of transmission of infection. In the majority of cases, cleaning followed by disinfection with an EPA-registered hospital disinfectant is adequate for re-processing noncritical items.

When a noncritical item is visibly contaminated with blood or OPIM however, an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., intermediate-level disinfectant) should be used. Since cleaning or disinfection of