

American Dental Association  
**Technical Report No. 1085**

# Implementation Guidelines for the Secure Transmission of Protected Health Information in Dentistry

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**AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1085 FOR IMPLEMENTATION GUIDELINES FOR THE SECURE TRANSMISSION OF PROTECTED HEALTH INFORMATION IN DENTISTRY**

The Council on Dental Practice of the American Dental Association has approved American Dental Association Technical Report No. 1085 for Implementation Guidelines for the Secure Transmission of Protected Health Information in Dentistry. Working Groups of the ADA Standards Committee on Dental Informatics (SCDI) 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 has 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. 1085 on October 23, 2015.

The ADA Standards Committee on Dental Informatics thanks the members of Working Group 12.1 on Digital Imaging and the organizations with which they were affiliated at the time the specification was developed:

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**FOREWORD**

(This Foreword does not form a part of ADA Technical Report No. 1085 Implementation Guidelines for the Secure Transmission of Protected Health Information in Dentistry.)

In 1992, there was interest in the standardization of clinical information systems related to electronic technology in the dental environment. After evaluating current informatics activities, a Task Group of the ANSI Accredited Standards Committee MD156 (ASC MD156) was created by the ADA to initiate the development of technical reports, guidelines, and standards on electronic technologies used in dental practice. In 1999, the ADA established the ADA Standards Committee on Dental Informatics (SCDI). The ADA SCDI is currently the group that reviews and approves proposed American National Standards (ANSI approved) and technical reports developed by the standards committee's working groups. The ADA became an ANSI accredited standards organization in 2000.

The scope of the ADA SCDI is:

*"The ADA SCDI shall develop informatics standards, technical reports and guidelines and interact with other entities involved in the development of health informatics standards aimed at implementation across the dental profession.*

This technical report is a collaborative effort between SCDI Working Group 12.1 Digital Imaging and DICOM WG 22 Dentistry. It was edited by S. Brent Dove and prepared at the request of Scott Benjamin (chairman, SCDI WG 12.1) and Chris Bope and Veeratrishul Allareddy (co-chairmen, DICOM WG 22).

## AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1085 FOR IMPLEMENTATION GUIDELINES FOR THE SECURE TRANSMISSION OF PROTECTED HEALTH INFORMATION IN DENTISTRY

### EXECUTIVE SUMMARY

(This Executive Summary does not form a part of ADA Technical Report No. 1085 Implementation Guidelines for the Secure Transmission of Protected Health Information in Dentistry.)

In 2013, The Office of Health and Human Services (**HHS**) and the Office of Civil Rights (**OCR**) announced a final rule that implements a number of provisions of the HITECH Act called the Omnibus Rule to strengthen the privacy and security protections for health information established under HIPAA. The omnibus rule greatly enhances a patient's privacy protections and strengthens the government's ability to enforce the law. One of the most notable changes is in the penalties for a breach of patient information as a violation of patients' rights under HIPAA. When HIPAA was first enacted, the maximum penalty for a HIPAA violation was \$250,000. Now, the maximum penalty is **\$1.5 million**.

These government mandated regulations require that all healthcare providers develop and implement policies for the privacy and security of electronic PHI (protected health information). ONC has released implementation guidelines for secure messaging to assure security and Interoperability. One such secure messaging system, the Direct Messaging Protocol specifies a simple, secure, scalable, open standards-based way for participants to send authenticated, encrypted health information directly to known, trusted recipients over the Internet. In simple terms, Direct Messaging security specifications are intended to say "*messages go where they are meant to, are not altered during transmission, and are not seen by anyone for whom they are not intended.*"

An accredited direct messaging health information service provider (HISP) provides a third-party cryptographic security service for PHI electronic messaging applications including: authentication, message integrity, and identity of origin; ensuring healthcare providers compliance with HIPAA, HITECH and the final Omnibus Rule.

It is important to remember that specific written permission from the patient also is required to transmit any PHI over the internet.

## **AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1085 FOR IMPLEMENTATION GUIDELINES FOR THE SECURE TRANSMISSION OF PROTECTED HEALTH INFORMATION IN DENTISTRY**

### **SCOPE AND PURPOSE**

This report provides a technical specification based on the Direct Secure Messaging Protocol for the secure electronic transmission of all protected health information (PHI) in dentistry.

### **INTRODUCTION**

The first true Electronic Health Record (**EHR**) was developed at the Regenstreif Institute in 1972. Since that time, the concept of an electronic or computer-based health record has matured in all disciplines of health care including the field of dentistry. Currently over 90% of dental practices have some form of electronic dental record. With the introduction of commercial digital radiography systems in the 1990s, complete administrative and clinical systems have been available.

During the 1990s, the American Dental Association (ADA) took a leadership role in the development of interoperability standards for all aspects of the EHR. This included the introduction of the Digital Image Communications in Medicine (**DICOM**) standard for all areas of digital imaging in dentistry. Other standards activities including Health Level 7 (**HL7**) and Integrating the Healthcare Enterprise (**IHE**) have continued to develop standards to improve interoperability between systems from different manufacturers and disciplines of healthcare.

In 1996, the Health Insurance Portability and Accountability Act (**HIPAA**) was passed which directed the government to develop regulations protecting the privacy and security of certain health information. Privacy Rules created national standards for the protection of certain health information. A major purpose of the Privacy Rule is to define and limit the circumstances in which an individual's protected health information may be used or disclosed by covered entities. Security Rules established a national set of security standards for protecting certain health information that is held or transferred in electronic form.

In 2004, the ADA published Technical Report No. 1031 Internet Security Issues for Dental Information Systems. This report was designed to educate and increase the general awareness of security issues associated with the use of the internet for the transmission of healthcare information.

In 2010, the Health Information Technology for Economic and Clinical Health (**HITECH**) Act went into effect, amending the HIPAA Privacy and Security Rules. The HITECH Act was a part of the American Recovery and Reinvestment Act of 2009, which provided financial incentives for the adoption and "meaningful use" of Electronic Health Records. This legislation also established the Office of National Coordinator for Health Information Technology (**ONC**). ONC is the principal federal entity charged with coordination of nationwide efforts to implement and use the most advanced health information technology and the electronic exchange of health information.

ADA Technical Report No. 1060 The Secure Exchange and Utilization of Digital Images in Dentistry was released in 2011. This report outlined methods for the secure electronic exchange and utilization of electronic digital image files, including those requiring diagnostic quality. Examples include diagnostic radiographs, intraoral and extra-oral photographs, video, optical impressions and oral pathology photomicrographs. It was stated that at the time of release no real practical method of secure transmission was available and that caution was advised against the utilization of unsecure exchange transmission modes, such as unencrypted e-mail attachments sent over the Internet or any other unsecured electronic exchange not conforming to accepted security transmission standards.

Launched in March 2010 as a part of the Nationwide Health Information Network, the Direct Project was created to specify a simple, secure, scalable, standards-based way for participants to send authenticated, encrypted health information directly to known,