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ANSI/ADA Specification No. 1027
Approved by ANSI: November 2, 2010

American National Standard/
American Dental Association

Specification No. 1027

Implementation Guide for ADA Specification No. 1000 - Standard Clinical Data Architecture

ADA American Dental Association®

2010

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AMERICAN NATIONAL STANDARD/AMERICAN DENTAL ASSOCIATION SPECIFICATION NO. 1027 FOR THE IMPLEMENTATION GUIDE FOR ANSI/ADA SPECIFICATION NO. 1000: STANDARD CLINICAL DATA ARCHITECTURE

The Council on Dental Practice of the American Dental Association has approved American Dental Association Specification No. 1027 for the Implementation Guide for ANSI/ADA Specification No. 1000: Standard Clinical Data Architecture. 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 specification was forwarded to the American National Standards Institute with a recommendation that the specification be approved as an American National Standard. Approval of ADA Specification No. 1027 as an American National Standard was granted by the American National Standards Institute on November 2, 2010.

The ADA Standards Committee on Dental Informatics thanks the members of Working Group 11.1 on Standard Clinical Data Architecture and the organizations with which they were affiliated at the time the specification was developed:
Mark Diehl (chairman), Mark Diehl Consulting, Rensselaer, NY;
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Scott Trapp, U.S. Public Health Service, Ogema, MN; and
Gregory G. Zeller, University of Maryland, Baltimore.

In addition, many members of other SCDI working groups and other standards developing organizations, including HL7 and ASTM; and experts from the private sector and federal government, contributed comments and suggestions.

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FOREWORD

(This Foreword does not form a part of ANSI/ADA Specification No. 1027 for the Implementation Guide for ANSI/ADA Specification No. 1000: Standard Clinical Data Architecture).

In 1998 the ADA began publishing the Proposed ANSI 1000 Specification as a draft standard for public review and comment. The draft standard was published by subject areas corresponding to the major processes identified in the Concept Model. Public review included document distribution and symposium review at numerous professional meetings. Following all-parties review and balloting according to ANSI and ADA standards development rules, the Specification was approved as an American National Standard in February, 2001. With this action, this specification became the first model-based, comprehensive, data-level standard for electronic health information in the United States.

The specification's implementation guide was approved for publication as ADA Technical Report No. 1027 in August, 2003. This document represents the first revision to that technical report. With approval by ANSI, this document is now an American National Standard.

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 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:

> *"To promote patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, specifications, technical reports, and guidelines for: components of a computerized dental clinical workstation; electronic technologies used in dental practice; and interoperability standards for different software and hardware products which provide a seamless information exchange throughout all facets of healthcare."*

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1. INTRODUCTION

Background

The origin of the ANSI/ADA Specification 1000 for the Structure and Content of a Computer based Patient Record is the ADA House of Delegates Resolution 18H-1992 (Trans 1992:597) to facilitate development of the computer-based dental patient record. The ADA Council on Dental Practice established a Computer-based Oral Health Record (COHR) workgroup to implement this resolution. An important result of this work effort was the designation of the American Dental Association as the steward of data content and policy in Dentistry by ADA Board Resolutions B-118-1995 to B-121-1995.

In February, 1996, the CDP COHR Workgroup completed its work with publication of the Computer-based Oral Health Record Concept Model. The COHR Concept Model presented a view of the clinical process and basic data needed to support these processes. This concept model forms the foundation for this standard.

Also in 1996 the ADA House of Delegates approved Resolution 92H-1996 advocating seamless availability of patient health data across the healthcare professions, specialties, and care delivery environments. This resolution addressed the interoperability of health data for patient benefit, considering the health of the entire patient and noting that patient well-being and optimum outcomes often need provider access to patient health information sources beyond the traditional boundaries that artificially compartmentalize care delivery.

In 1998 the ADA began publishing the Proposed ANSI 1000 Specification as a draft standard for public review and comment. The draft standard was published by subject areas corresponding to the major processes identified in the Concept Model. Public review included document distribution and symposium review at numerous professional meetings. Following all-parties review and balloting according to ANSI and ADA standards development rules, the Specification was adopted as an American National Standard in February, 2001. With this action, this specification became the first model-based, comprehensive, data-level standard for electronic health information in the United States.

The specification's implementation guide was approved for publication as ADA Technical Report No. 1027 in August, 2003. This document represents the first revision to that technical repo. With approval by ANSI, this document is now an American National Standard.

PURPOSE

The purpose of this document is to provide implementation guidance to system planners, solution and data architects, and database developers. This document describes engineering approaches and presents examples of how this specification may be used at the data layer of system designs and in data subsystems for new development, legacy system migration, and data system retrofit.

SCOPE

The ANSI 1000 Implementation Guide provides technical guidance for architects and developers to use in preparing a clinical data design that conforms to the Specification 1000. With this implementation guide vendors, developers and other users can efficiently and economically build clinical databases and data systems from the ANSI/ADA 1000 Specification. This