

Revised American Dental Association
Technical Report No. 1043

Use of Electronic Resources to Access Oral Healthcare Information

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Dental
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AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1043 FOR USE OF ELECTRONIC RESOURCES TO ACCESS ORAL HEALTHCARE INFORMATION

The Council on Dental Practice of the American Dental Association has approved American Dental Association Technical Report No. 1043 for Use of Electronic Resources to Access Oral Healthcare Information. Working Groups of the ADA Standards Committee on Dental Informatics (SCDI) formulate this and other standards 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. 1043 on January 27, 2016.

The ADA Standards Committee on Dental Informatics thanks the members of Working Group 13.4 on Use of Electronic Resources for Access to Information Supporting Oral Healthcare 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 American Dental Association Technical Report No. 1043 For Use of Electronic Resources to Access Oral Healthcare Information).

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 specifications, 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 document may provide information regarding legal implications of the security and privacy regulations. This document does not provide legal advice, and covered entities must work with their legal staff to address appropriate requirements. This document may serve as a tool to expedite an understanding of the necessary legal actions needed to address requirements, as well as federal and state legislation, as security and privacy has an impact on many aspects of dentistry.

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- VI. Series of articles on practical approach to evidence-based dentistry
- VII. Dental apps for mobile devices

ADA Member benefit: ADA provides, as a member benefit, access to electronic journals, databases and apps. Resources requiring login to ADA site are noted.

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SCOPE

Information management and critical appraisal skills are essential to providing optimal patient care. This technical report provides guidance on searching for dental research and determining the quality of what is found.

INTRODUCTION: THE CHANGING INFORMATION LANDSCAPE

"Clay Shirky.... We have long had access to 'more reading material than you could finish in a lifetime... there is no such thing as information overload, there's only a filter failure.'"¹

Today virtually, figuratively and literally, all dental research is available to anyone with Internet access and a web-enabled device. Twenty five thousand articles are published every year in dentistry, in over 700 journals². The number of good quality clinical trials and systematic reviews is increasing at a rate of 10% per year³. Niederman estimates: "to stay current with the [dental] literature, academics and clinicians may need to read six articles each week, 52 weeks per year"⁴, and that is only considering one study design type (randomized controlled trials) from one source (MEDLINE). The challenge is finding evidence-based answers to clinical questions.

Evidence-based dentistry

Evidence-based dentistry (EBD) has been defined as "an approach to oral healthcare that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences."⁵ Evidence-informed decision making aims to combine these three elements to provide the best individual care for patients. The identification, appraisal and application of up-to-date clinical evidence is key to this process.

The evidence for clinical decision making can be presented as a hierarchy, reflecting the relative authority of the research. For example, systematic reviews of randomized controlled trials are ranked above case studies as they are seen as having more scientific validity.

This report will give a definition of each level of evidence, with information resources to access and some information about how each can be applied in practice.

¹IEEE, Computer Society, November/December 2010, <https://www.computer.org/csdl/mags/ic/2010/06/mic2010060010.html#bibmic20100600102>, Original Source: R. Juskalian, "Interview with Clay Shirky, Part I," Columbia Journalism Rev., 19 Dec. 2008; http://www.cjr.org/overload/interview_with_clay_shirky_par.php?page=all, accessed 1 Apr 2015

² Forrest, J.L., 2015, Evidence-Based Decision Making: Introduction and Formulating Good Clinical Questions, <http://www.dentalcare.com/>, accessed 1 Apr 2015

³ Forrest, J.L., 2015, Evidence-Based Decision Making: Introduction and Formulating Good Clinical Questions, <http://www.dentalcare.com/>, accessed 1 Apr 2015

⁴ Niederman, R., Chen, L., Murzyn, L., and Conway, S., (2002). Benchmarking the randomized controlled literature on MEDLINE. Evidence Based Dentistry, 3: 5-9

⁵ ADA Center for Evidence Based Dentistry, <http://ebd.ada.org/en/about/>