

American Dental Association
Technical Report No. 1095

Electronic Resources for Access and Appraisal of Clinical Information

ADA American
Dental
Association®

2018

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

ELECTRONIC RESOURCES FOR ACCESS AND APPRAISAL OF CLINICAL INFORMATION

The ADA Standards Committee on Dental Informatics (SCDI) has approved American Dental Association Technical Report No. 1095 for Electronic Resources for Access and Appraisal of Clinical Information. Working Groups of the ADA 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. 1095 on January 16, 2018.

The ADA Standards Committee on Dental Informatics thanks the ADA Center for Evidence-Based Dentistry and the members of Working Group 13.4 on Electronic Resources for Access and Appraisal of Clinical Information and the organizations with which they were affiliated at the time the specification was developed:

Heiko Spallek (Chairman), University of Pittsburgh School of Dental Medicine, PA;
Satish Kumar, University of Pittsburgh School of Dental Medicine, PA;
Gary Guest, University of Texas, San Antonio;
Anne Littlewood, Cochrane Oral Health, Manchester, UK; and
Laurel Graham, American Academy of Pediatric Dentistry, Chicago, IL.

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

RESOURCES FOR ACCESS AND APPRAISAL OF CLINICAL INFORMATION

FOREWORD

(This Foreword does not form a part of American Dental Association Technical Report No. 1095 for Electronic Resources for Access and Appraisal of Clinical 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.

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

RESOURCES FOR ACCESS AND APPRAISAL OF CLINICAL INFORMATION

CONTENTS

- I. Scope
- II. Introduction: The Changing Information Landscape
- III. Evidence-Based Dentistry
- IV. Information Skills: How to Search, Retrieve and Critically Appraise
 - A. Formulating Your Clinical Question: PICO
 - B. Search Strategies
 - C. Critical Appraisal
- V. Practical application: using evidence-based dentistry every day chairside
 - A. Clinical Guidelines
 - 1. Definition
 - 2. Electronic Resources
 - a) *National Guideline Clearing House (NGC)*
 - b) *Guidelines International Network (GIN)*
 - c) *Health Services / Technology Assessment Texts (HStat)*
 - d) *ADA Evidence-Based Clinical Guidelines*
 - e) *National Institute for Health and Clinical Excellence (NICE)*
 - f) *CDC Division of Oral Health*
 - 3. Application in Practice
 - 4. Additional Reading
 - B. Systematic reviews and meta-analyses
 - 1. Definition
 - 2. Electronic Resources
 - a) *The Cochrane Library*
 - b) *PubMed Clinical Queries*
 - 3. Application in practice
 - 4. Additional Reading
 - C. Controlled clinical trials
 - 1. Definition
 - 2. Electronic resources
 - a) *PubMed Clinical Queries*
 - b) *Cochrane Central Register of Controlled Trials (CENTRAL)*
 - 3. Application in Practice
 - 4. Additional Reading
 - D. Observational studies
 - 1. Definition
 - 2. Electronic Resources
 - a) *PubMed Clinical Queries*
 - 3. Application in Practice
 - 4. Additional Reading
 - E. Case studies
 - 1. Definition
 - 2. Electronic Resources
 - 3. Application in Practice
 - 4. Additional Reading
- VI. Other resources for evidence-based dentistry
 - A. Databases and search engines
 - 1. Trip Database
 - 2. ACCESSSS

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

- Therapeutics)
 - 4. SUMSearch
 - 5. University of Texas Health Science Center CATs Library
 - 6. DynaMed Plus
 - 7. Dental and Oral Science Source
 - 8. E-journals and e-books
- B. Evidence based journals
 - 1. Evidence-based Dentistry
 - 2. Journal of Evidence Based Dental Practice
- C. Websites
 - 1. ADA Center for Evidence Based Dentistry
 - 2. Centre for Evidence-Based Dentistry
 - 3. National Network of Libraries of Medicine
 - 4. National Institute of Dental and Craniofacial Research (NIDCR)
- D. Drug Databases
 - 1. Rx List[®]
 - 2. Lexicomp[®]
- E. Self –Contained Information Resources for Dentistry
 - 1. VitalSource Bookshelf[®]
- F. Dental apps for mobile devices
 - 1. Dental Decide
 - 2. Dentistry ProConsult
 - 3. SDCEP Dental Prescribing
 - 4. Dental Spanish Guide
 - 5. DynaMed Plus
 - 6. PubMed Mobile
 - 7. Radiation Emergency Medical Management
 - 8. Haz-Map Mobile
 - 9. Drug Information Portable Mobile
 - 10. UpToDate[®]
- VII. Further reading

ADA Member benefit: ADA provides, as a member benefit, access to electronic journals, databases and apps. Resources requiring login to ADA site are noted wherever it is applicable at the time of this publication.

This is a preview of "ADA TR 1095-2018". [Click here to purchase the full version from the ANSI store.](#)

RESOURCES FOR ACCESS AND APPRAISAL OF CLINICAL INFORMATION

I. Scope

Locating and appraising dental research are essential to providing optimal patient care. This technical report provides information with concise notes on electronic resources that will in turn provide detailed guidance on searching for clinically relevant research and determining the quality of what is found to help in clinical decision making.

II. 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 abstracts of much dental research are accessible to anyone with internet access and a web-enabled device. In the last 5 years (2011-2016), about 4700 randomized controlled trials (RCT) were published in dentistry according to one database – Medline. This means that a clinician is expected to read about 18 RCT every week besides other study designs, and related specialty or inter-professional topics.²

III. 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.”³ 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.⁴ The evidence for clinical decision making for clinicians can be presented with clinical practice guidelines and evidence summaries. This report will give basic outline of information skills followed by definition of various types of clinical evidence, with electronic resources to access and some information about how each can be applied in practice.

IV. Information Skills: How to Search, Retrieve and Critically Appraise

Evidence-based guidelines are a great resource for many clinical quandaries, but sometimes there are only systematic reviews, randomized controlled trials or case studies to provide guidance. Information skills are critical to finding answers quickly and accurately in all types of publications from systematic reviews to case studies. Successful navigation of dental research requires the development of advanced search skills. Competencies in information literacy are an essential part of a clinician’s skillset. The Association of College and Research

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 <https://www.ncbi.nlm.nih.gov/pubmed> Accessed 3 January 2017 using search word 'Dentistry' with filters activated: Randomized Controlled Trial, Publication date from 2011/01/01 to 2016/12/31.

³ ADA Center for Evidence Based Dentistry, <http://ebd.ada.org/en/about/>

⁴ Interactive Introductions to Evidence-based Dentistry can be accessed here: [Introduction to Evidence-Based Dentistry](#) (Boston University)