

Evidence Based Dentistry What Why and Where

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Fiction or Non-Fiction



Dr. Herbert Schilder

“The difference between the public library and the medical/dental library is that the public library clearly separates fiction from non-fiction”

What is Evidence Based Dentistry?

A Search For Truth

What is the Truth?



Breast Cancer and Root Canals



DoctorYourself.ComSM



Why Vaccinations Harm Children Health Experts Sound Off

Wednesday, February 11, 2009
By Eric Adams, the Health Ranger
Editor of takepills.com (link will verify...)
Tags: vaccinations, vaccines, health news



THE LANCET

Lancet 1998; Feb 28; 351(9103):637-41.

leal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children.

Wakefield AJ, Murch SH, Anthony A, Limell J, Casson CM, Malik M, Berelowitz M, Chilston AP, Thomson MA, Haines P, Valentine A, Davies SE, Walker-Smith JA

Wakefield's article linking MMR vaccine and autism was fraudulent

BMJ 2011; 342: doi: <http://dx.doi.org/10.1136/bmj.c7452> (Published 06 January 2011)
Cite this as: BMJ 2011;342:c7452

Clear evidence of falsification of data should now close the door on this damaging vaccine scare

Aren't we all using the best available evidence in our practice?

- ▶ "For each of the past 10 years an average of 6,700 articles about dentistry have been published. This accounts only for journals that are abstracted in the more common databases such as Medline and PubMed. Thus even if a dentist has read one or two peer reviewed journals every month for the past 5 years they would still have missed more than 33,000 articles". Glick JADA 2012
- ▶ "There are more than 500 oral health clinical trials published each year in each clinical specialty, in more than 30 journals. This is more than 1 article per day, 365 days per year!
- ▶ To stay current, each day, a clinician would need to identify, obtain, read, appraise, and implement 1 new article - an impossible task". Niederman, R. Director EBD Center Forsyth Institute

What about Evidence Based Medicine?

- ▶ "30-40% of medical patients do not receive care according to the best evidence and 20-25% of care provided is not needed or potentially harmful". McGlynn NEMJ 2003
- ▶ How many established standards of medical care are wrong? It is not known. Medical practice has evolved out of centuries of theorizing, personal experiences, bits of evidence, expert consensus, and diverse conflicts and biases. Rigorous questioning is difficult and trials mostly deal with trivialities or are efforts to buttress product sales.
It is possible that some entire medical subspecialties are based on little evidence. Their disappearance probably would not harm patients and might help salvage health budgets. V. Prasad, MD JAMA January 2012

Dental Practice of EBD

- ▶ Derek Richards DMD editor of EBD Journal 2006
- ▶ "6-7% of dental treatment is EBD
- ▶ More than 60% of general dentists turn to friends and colleagues for evidence rather than read a text or journal

Where do we get our evidence? Experts-Prophets-Vendors



Science or Sales?



Unfortunately the most read dental publications are similar to these. They tend to fill their pages with the proclamations of the prophets experts and vendors often with minimal or no disclaimers and some actually claim they are peer reviewed journals.

EBD requires questioning what we think we know

- ▶ Are 6 month prophylaxis recalls actually necessary?
- ▶ Does flossing actually prevent caries?
- ▶ Are pit & fissure sealants effective, who when where?
- ▶ Do you need to wait 6 months following a myocardial infarction for dental care?
- ▶ Blood thinners - Stop before surgery? How long? (Aspirin-NSAIDS)?
- ▶ Bisphosphonates-Actual Risk- Drug holiday before surgery?
- ▶ Do implants have a higher success rate than RCTS?
- ▶ Amalgam-What is the truth?
- ▶ Antibiotics: Which, when, how long?

Origins of Evidence Based Medicine

- ▶ **Archie Cochrane** – A British Physician in 60–70’s who was a strong advocate of randomized clinical trials (RCT’s) and the dissemination of this information for clinical practice
- ▶ **The Cochrane Center** at Oxford was founded in 1992. It is an international collaboration of 28,000 people in 28 countries tasked with developing Cochrane Systematic Reviews of RCT’s. Cochrane Reviews are considered the gold standard of systematic reviews
- ▶ **David Sackett** –A Canadian Physician coined the primary definition of EBM at McMaster University in the 90’s
- ▶ “Conscientious, explicit and judicious use of the best evidence in making decisions about the care of individual patients”

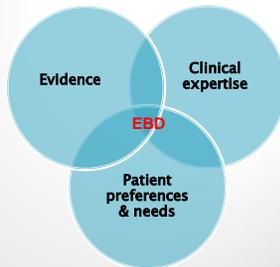
What is EVIDENCE–BASED DENTISTRY?

According to the ADA...

Evidence–based dentistry (EBD) is an **approach to oral health care** 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**.

Three Components of EBD

- Is an approach to oral health care
- Is a method to acquire, understand and apply the most current science
- Includes the patients needs and preferences



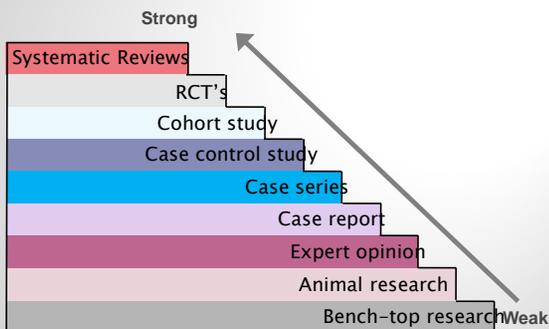
Evidence–Based Dentistry Is NOT....

- ▶ Cookbook dentistry
- ▶ A standard of care
- ▶ A mandate of what must be done
- ▶ A substitute for clinical judgment

“Evidence alone is never enough to make a clinical decision”
Vicori Monturi – Mayo Clinic

“External Clinical evidence can inform but can never replace individual clinical expertise” David Sackett

What is Evidence? Levels of Evidence



How much is enough?

Do we need an RCT to answer this question:

Will using a parachute save lives?

Group 1: Jump with parachutes

Group 2: Jump without parachutes?



Evidence Based Dentistry/Medicine Resources

- ▶ ADA Evidence Based Dentistry www.EDB.ada.org
- ▶ Cochrane Collaboration www.cochrane.org
- ▶ PubMed www.ncbi.nlm.nih.gov/pubmed
- ▶ Center Evidence Based Medicine www.cebm.net/
- ▶ JAMA Evidence www.jamaevidence.com/
- ▶ This is a short list of available resources

How to Practice EBD

Always be questioning what you think you know.

- ▶ What is the evidence?
- ▶ What is the level of evidence?
- ▶ What is the quality of evidence?
- ▶ Does this apply to this patient?

Use your own judgment

- ▶ Based on your experience and judgment should you recommend this?
- ▶ How does this patients needs and preferences influence this choice?

What is the Truth?

