

# Where is the Evidence today?

Asbjorn Jokstad  
Institute of Clinical Dentistry, University of Oslo, Norway

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What would you answer be if ...

a 32 y patient calls four hours after a wisdom tooth has been removed and complain about bleeding, pain and severe swelling.



She demands immediately some analgetics, some antifebriles and perhaps also antibiotics?...

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..or if ...

a 66 year old woman comes to your clinic because she feels she hasn't received any help from her former dentist about oral lichen planus. She wants to confer with you about a new Vietnamese Herbal Tea treatment described in the latest 'Health & Fitness'



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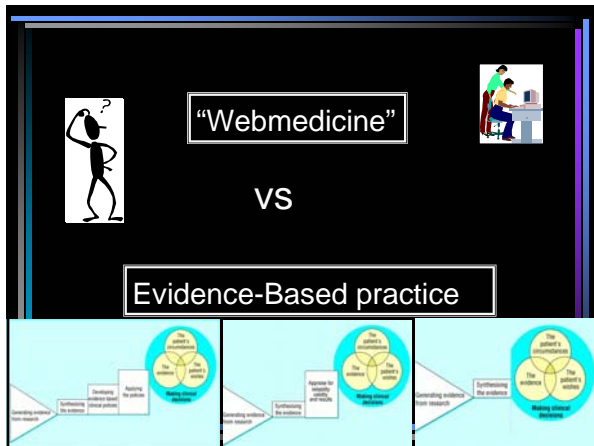
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Can answers be found on the Internet? .... "Web-medicine"

- General searches (AltaVista – Google- Lycos – MetaCrawler – Yahoo - etc.)

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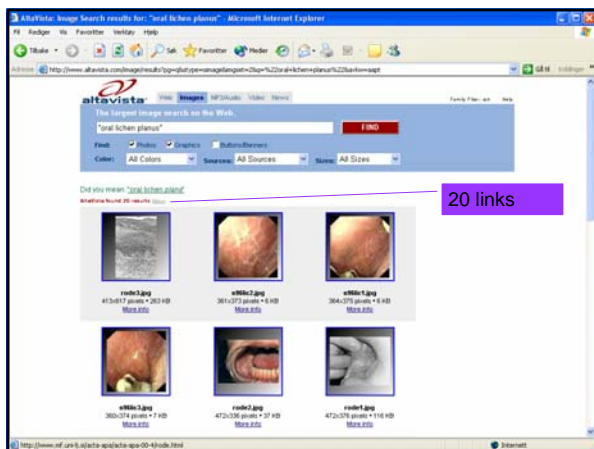
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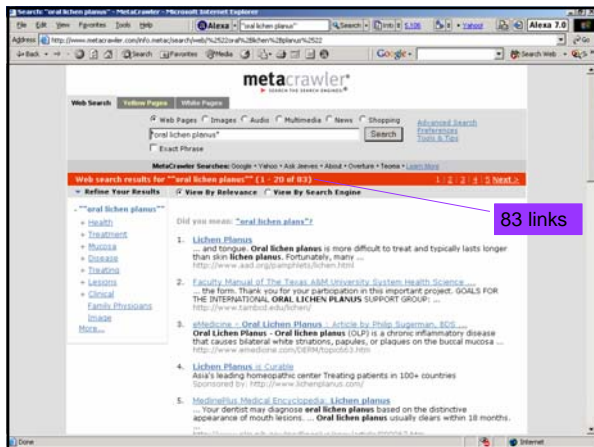
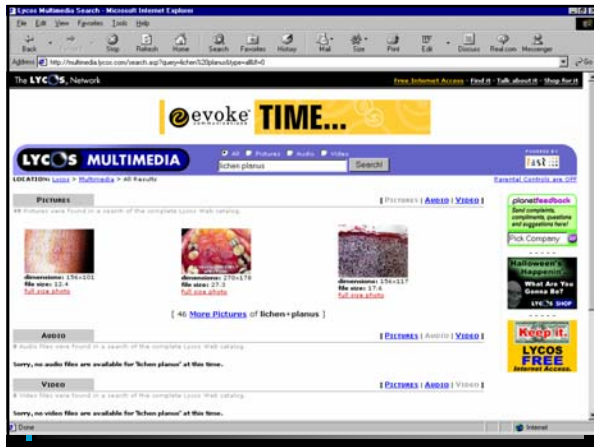
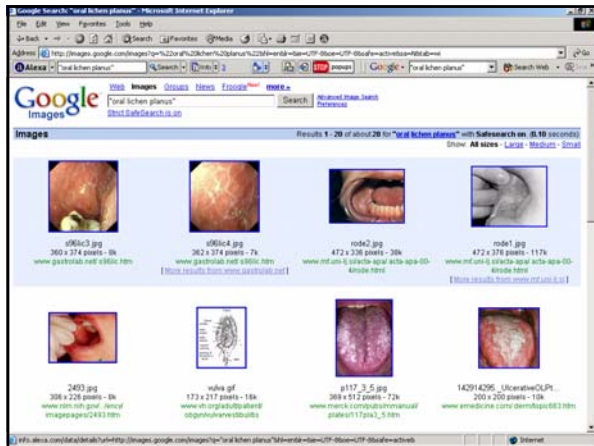
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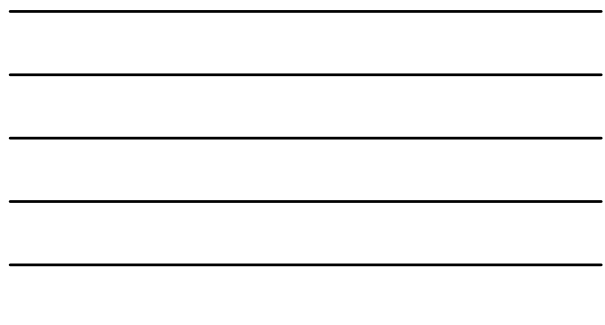
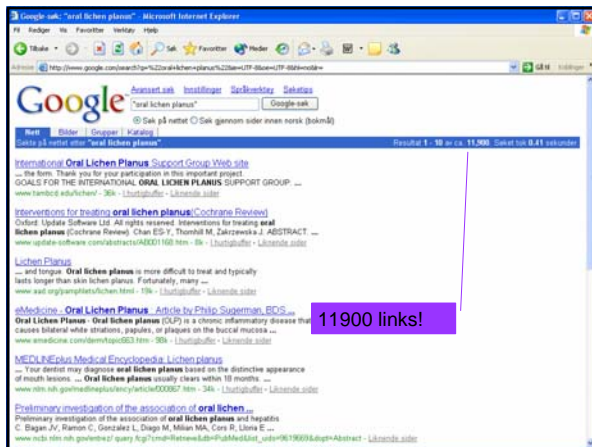
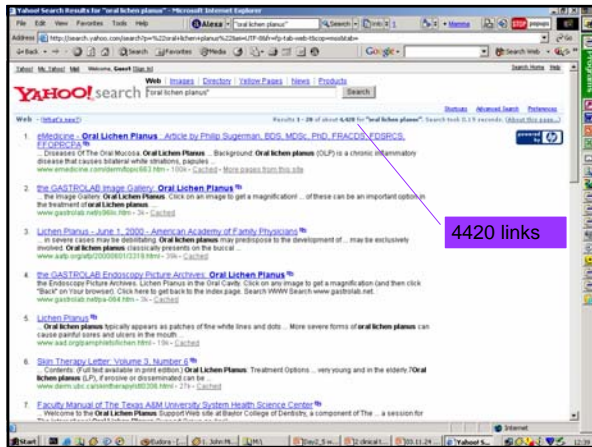
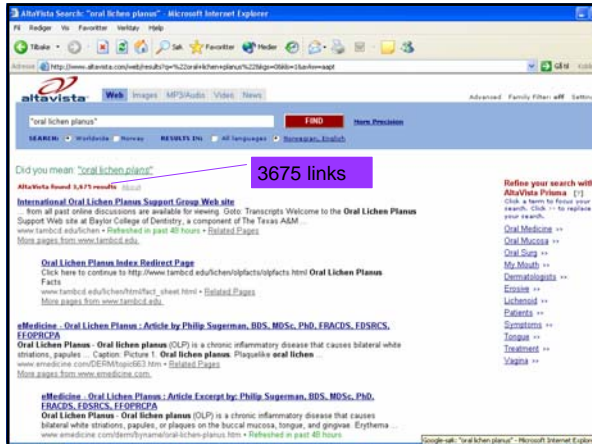
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Information is not knowledge is not clinical competence!

- General searching often non-specific
- Takes much time
- Quality of information varies greatly

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Can answers be found on the Internet? .... "Web-medicine"

- General search
- Medical databases

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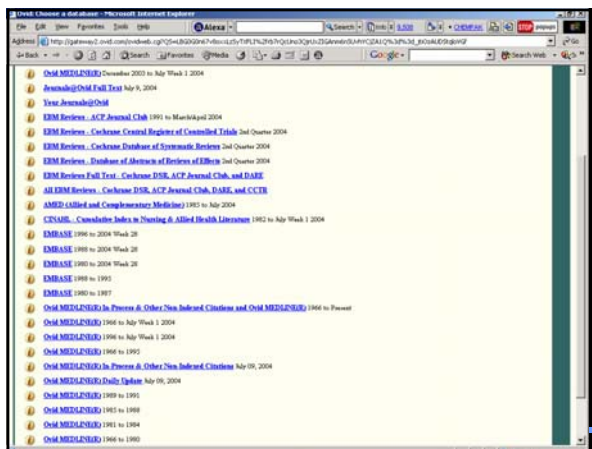
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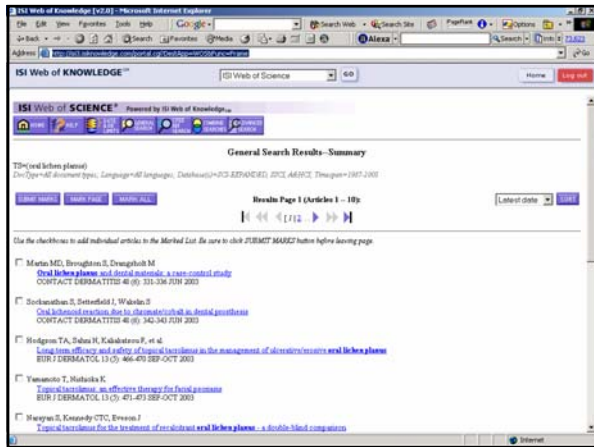
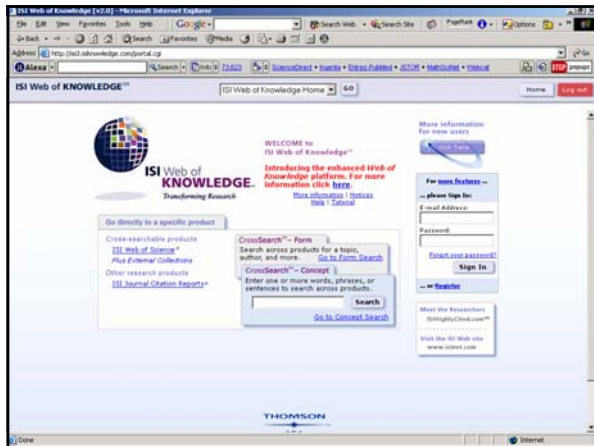
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## Can answers be found on the Internet? ... "Web-medicine"

- General search
- Medical databases
  - Medline

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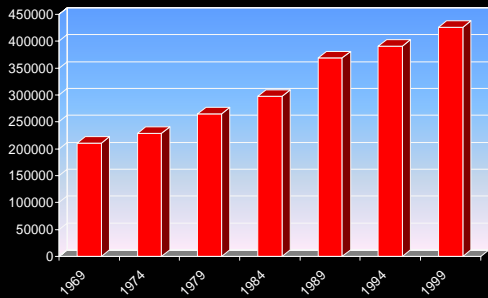
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### Publications in Medline



MEDLINE indexes ~4000 publications - a distinct minority

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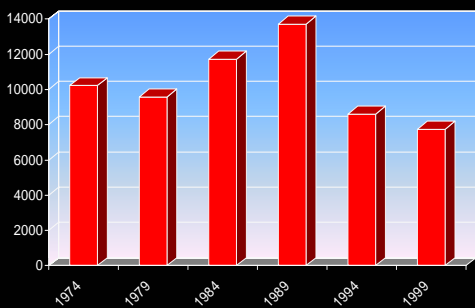
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### Dental Subset of Medline



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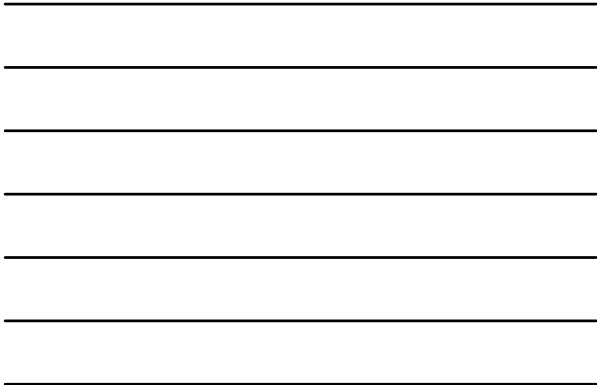
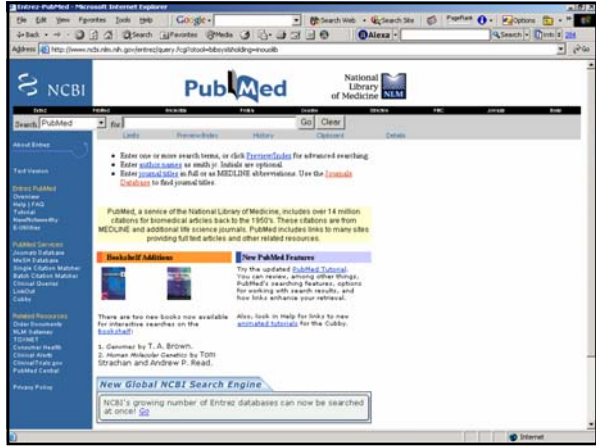
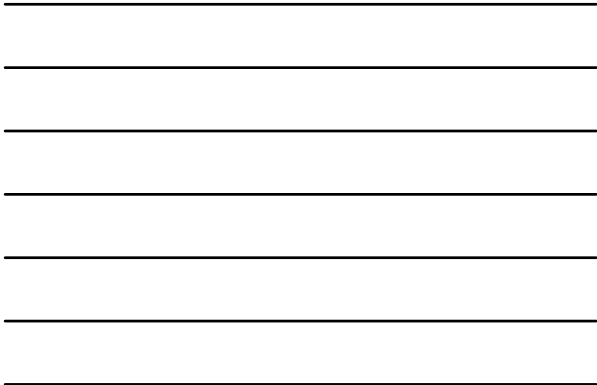
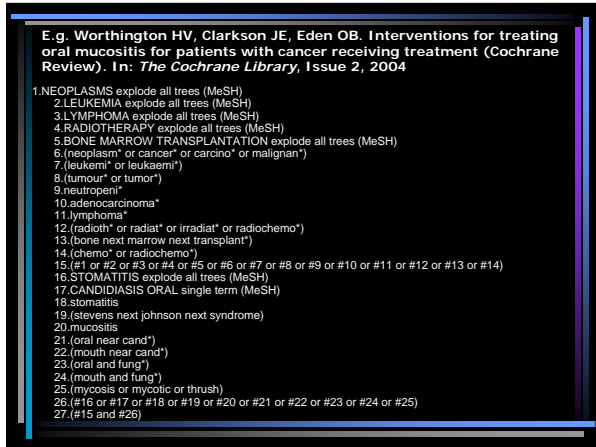
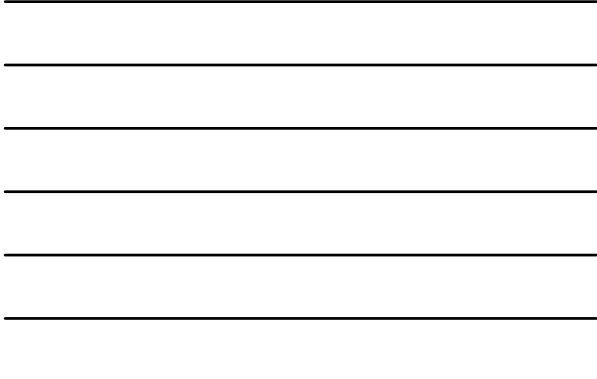
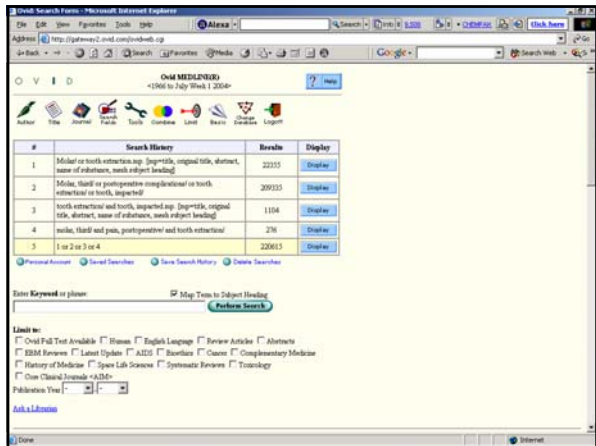
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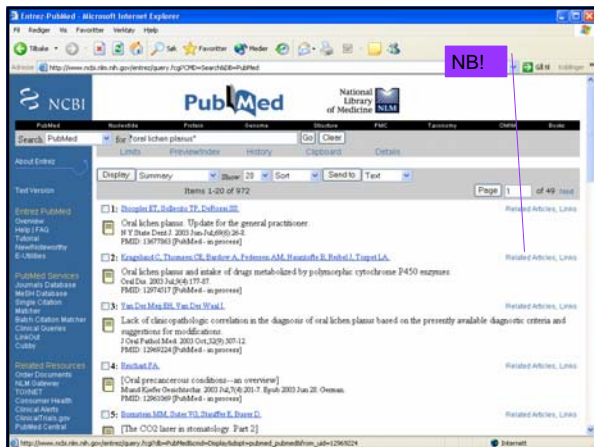
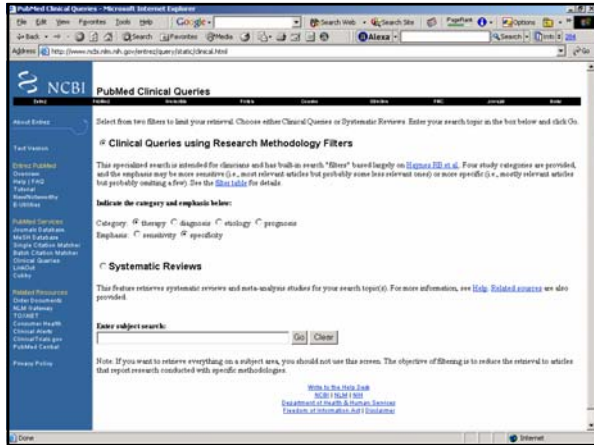
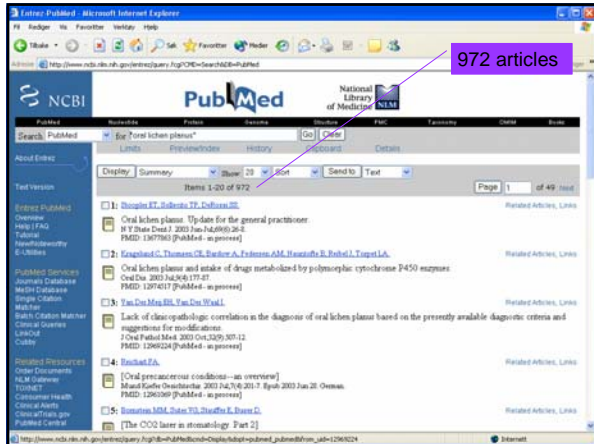
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## Information is not knowledge is not clinical competence!

- General searching often non-specific
- Takes much time
- Quality of information varies greatly
- Can't remember how to search effectively
- (Most) original articles can't be retrieved
- Not enough time anyway

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## Can answers be found on the Internet? .... "Web-medicine"

- General search
- Medical databases
  - Medline
  - ISI
  - Embase, Cinahl
- Medical metasite searching

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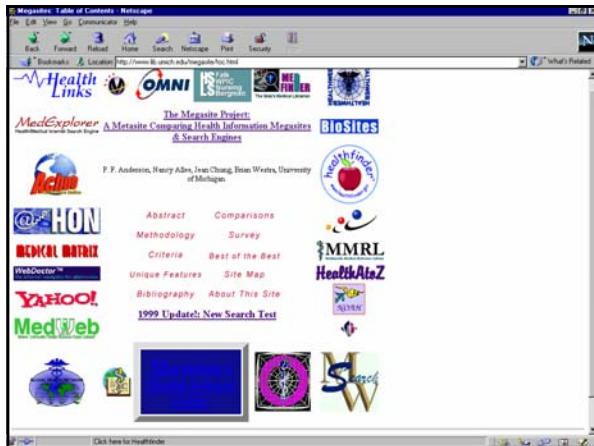
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**Information is not knowledge is not clinical competence!**

- General searching often non-specific
- Takes much time
- Quality of information varies greatly
- Can't remember how to search effectively
- (Most) original articles can't be retrieved
- Not enough time anyway
- Medical metasite searches on oral health issues are often superficial
- Metasite searching often too "textbook"

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**Can answers be found on the Internet? .... "Web-medicine"**

- General search
- Medical databases
  - Medline
  - ISI
  - Embase, Cinahl
- Medical metasite searching
- Primary publications

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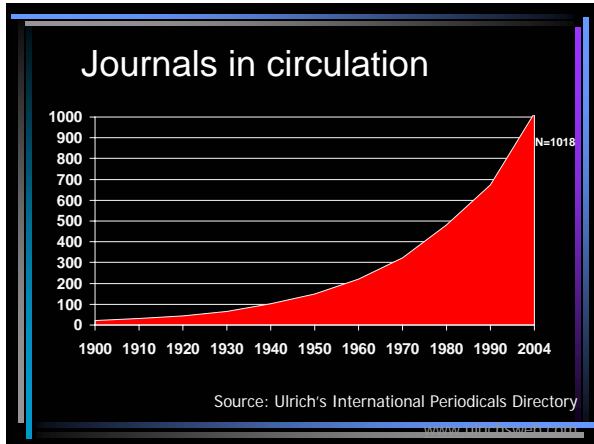
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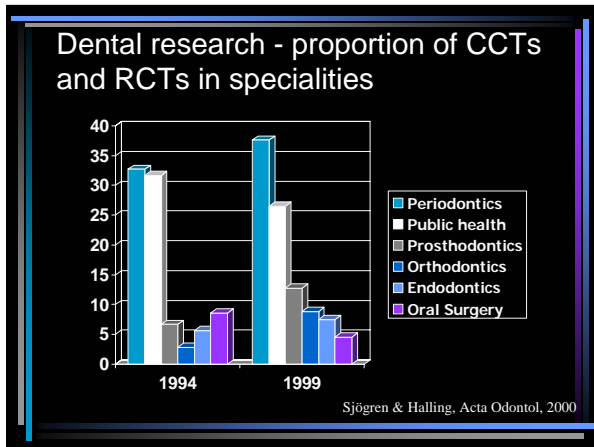
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### Top 40 Scientific Citation Index 1997 Ranking

1	Journal of Dental Research	21	Journal of American Dental Association
2	Journal of Periodontology	22	Journal of Oral and Maxillofacial Surgery
3	Clinical Oral Implants Research	23	International Endodontic Journal
4	Journal of Clinical Periodontology	24	Swedish Dental Journal
5	Operative Dentistry	25	European Journal of Oral Biology
6	Journal of Periodontal Research	26	Cleft Palate and Cranio
7	Oral Microbiology Immunology	27	British Journal of Oral & Maxillofacial Surgery
8	Journal of Oral Pathol Med	28	Acta Odontologica Scandinavica
9	Dental Materials	29	European Journal of Orthodontics
10	Oral Oncology	30	Endodontic traumatol
11	Scandinavian Journal of Dental Research	31	British Dental Journal
12	Critical Reviews of Oral Biology	32	Journal of Oral Rehabilitation
13	Journal of Dentistry	33	International Journal of Oral and Maxillofacial Surgery
14	Journal of Public Health Dentistry	34	Angle orthodontist
15	Caries Research	35	American journal of orthodontics and dentofacial orthopedics
16	Oral Surg Oral Med Oral Pathol	36	Australian Dental Journal
17	Journal Endodontology	37	Journal of Craniomaxillofacial Surgery
18	Archives of Oral Biology	38	Journal of Dentistry Children
19	Community Dentistry and Oral Epidemiology	39	Cranio
20	Journal of Prosthetic Dentistry		

Choice of literature  
Citation index

Derek Richards  
Evidence Based-Dentistry 1999

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SCI 1997 Ranking	Journal Name	Number of Published RCTs	Systematic Reviews
1	Journal of Dental Research	17	8
2	Journal of Periodontology	79	1
3	Clinical Oral Implant Research	7	0
4	Journal of Clinical Periodontology	14	4
5	Operative Dentistry	4	0
6	Journal of Periodontal Research	6	2
7	Oral Microbiology Immun	1	0
8	Journal of oral pathol med	1	0
9	Dental mater	1	0
10	Oral oncology	5	4
11	Scandinavian Journal of dental research	0	0
12	Critical reviews of oral biology	0	7
13	Journal of dentistry	15	6
14	Journal of public health dentistry	3	0
15	Caries research	33	1
16	Oral surg, Oral med	43	7
17	Journal Endodontology	20	0
18	Archives of Oral Biology	3	0
19	Community Dentistry and Oral Epidemiology	12	2
20	Journal of prosthetic dentistry	25	4
21	JADA	27	4
22	Journal of Oral and Maxillofacial Surgery	43	1
23	International endodontic journal	4	0
24	Swedish dental journal	9	0
25	European journal of oral biology	17	0
26	Cleft palate and crano	17	2
27	IJOOMS	13	1
28	Acta Odontol scanda	11	0
29	European journal of orthodontics	7	0
30	Endodont traumatol	4	0
31	BDJ	22	4
32	Journal of oral rehabilitation	10	0
33	International journal of oral and maxillofacial surgery	4	0
34	Angle orthodont	14	0
35	AM J of Ortho dentofacial	43	3
36	Australian dental journal	11	0
37	J craniomaxill surg	5	2
38	J of dent children	0	0
39	Cranio	4	2

Choice of literature -  
EBD papers 1995-1998

Derek Richards  
Evidence Based-Dentistry 1999

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Journal	Based on number of published RCTs	Based on number of published Systematic Reviews
1 Journal of Dental Research	10	16
2 Journal of Periodontology	1	20
3 Clinical Oral Implant Research	22	20
4 Journal of Clinical Periodontology	14	5
5 Operative Dentistry	26	21
6 Journal of Periodontal Research	24	11
7 Oral Microbiol immun	34	22
8 Journal of oral pathol med	35	23
9 Dental mater	36	24
10 Oral Oncology	25	6
11 Scandinavian Journal of dental research	37	25
12 Critical Reviews of Oral Biology	38	2
13 Journal of Dentistry	13	4
14 Journal of Public Health Dentistry	31	26
15 Caries Research	5	17
16 Oral surg, Oral med	2	3
17 Journal Endodontology	5	27
18 Archives of Oral Biology	32	28
19 Community Dentistry and Oral Epidemiology	17	12
20 Journal of prosthetic dentistry	7	7
21 JADA	6	8
22 Journal of Oral and Maxillofacial Surgery	3	18
23 International endodontic journal	27	29
24 Swedish dental journal	21	30
25 European journal of oral biol	11	31
26 Cleft palate and crano	12	13
27 IJOOMS	16	19
28 Acta Odont, scanda	18	32
29 European journal of orthodontics	23	33
30 Endodont traumatol	28	34
31 BDJ	8	35
32 Journal of oral rehabilitation	20	36
33 International journal of oral and maxillofacial surgery	29	36
34 Angle orthodont	15	37
35 AM J of Ortho dentofacial	4	19
36 Australian dental journal	19	38
37 J craniomaxill surg	33	34
38 J of dent children	39	39
39 Cranio	30	15

Choice of literature -  
ranking

Derek Richards  
Evidence Based-Dentistry 1999

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Position	Journal Name	Position	Journal Name
1	Journal of Dental Research	1	Oral Surgery, Oral medicine, Oral Pathology
2	Journal of Periodontology	2	Journal of Dental Research
3	Oral Surgery, Oral medicine, Oral Pathology	3	Journal of Prosthetic Dentistry
4	Journal of Clinical Periodontology	4	Journal of American Dental Association
5	Journal of Dentistry	5	AM J of Ortho dentofacial
6	Journal of Prosthetic Dentistry	6	Journal of Periodontology
7	Journal of American Dental Association	7	Journal of Dentistry
8	Caries Research	8	British Dental Journal
9	Journal of Periodontal Research	9	Journal of clinical periodontology
10	Oral oncology	10	Journal of Oral and Maxillofacial Surgery

Average of ranking according to Scientific Citation Index,

% RCTs

% systematic reviews

Ranking based only on evidence-based criteria:

% RCTs

% systematic reviews

Derek Richards  
Evidence Based-Dentistry 1999

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**Suggested scientifically sound journals with clinically relevant information to GPs**

1 <b>Journal of Dental Research*</b>	21 <b>Journal of the American Dental Association*</b>
2 <b>Journal of Periodontology*</b>	22 <b>Journal of Oral and Maxillofacial Surgery*</b>
3 <b>Clinical Oral Implant Research*</b>	23 International Endodontic Journal
4 <b>Journal of Clinical Periodontology*</b>	24 Swedish Dental Journal
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8 <b>Journal of Oral Pathology Medicine*</b>	28 Acta Odontologica Scandinavica
9 <b>Dental Materials</b>	29 European Journal of Orthodontics
10 <b>Oral Oncology</b>	30 Dental Traumatology
11 International Journal of Oral and Maxillofacial Implants	31 <b>British Dental Journal*</b>
12 Critical Reviews of Oral Biology	32 Journal of Oral Rehabilitation
13 <b>Journal of Dentistry*</b>	33 International Journal of Oral and Maxillofacial Surgery
14 Journal of Public Health Dentistry*	34 Angle Orthodontist
15 <b>Caries Research*</b>	35 <b>American Journal of Orthodontics and Dentofacial Orthopedics*</b>
16 <b>Oral Surgery Oral Medicine, Oral Pathology*</b>	36 Australian Dental Journal
17 Journal of Endodontics*	37 Journal of Cranio-Maxillofacial Surgery*
18 Archives of Oral Biology*	38 Journal of Dentistry for Children*
19 Community Dentistry and Oral Epidemiology*	39 Cranio
20 <b>Journal of Prosthetic Dentistry*</b>	

American Journal of Dentistry, Clinical Implant Dentistry, Clinical Oral Investigations, Compendium on Continuing Education in Dentistry, International Journal of Prosthodontics, Journal of Clinical Pediatric Dentistry, Journal of Dental Education, Journal of Orofacial Pain, Journal of Prosthodontics, Journal of Californian Dental Association, Journal of Canadian Dental Association, Pediatric Dentistry

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**Can answers be found on the Internet? .... "Web-medicine"**

- General search
- Medical databases
  - Medline
  - ISI
  - Embase, Cinahl
- Medical metasite searching
- Primary publications
- Evidence-based Practice

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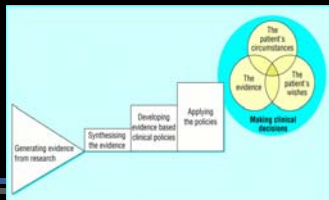
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**EBD in daily practice**

**1. Practice protocols, policies and guidelines based on evidence-based principles**




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Neuralgia and pain	<a href="#">[world]</a>	<a href="#">[fdi]</a>	<a href="#">[META]</a>
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**Patient Issues**

Original title	Type	Country	Source	Publication	Authors	URL	Notes
Zahnärztinnen und Zahnärzten wie sollen sich verhalten? Empfehlungen an Zahnärztinnen und Zahnärzte über den Umgang mit dem Patienten bei einer Zahnbehandlung. Wie sieht es mit der Gesundheit aus?	Statement	Germany	Dentistry/Endodontics/Di-OMC, Endodontics: Heart of Health, Molar and Root Endodontics			<a href="#">JGOMC, Endodontics</a> <a href="#">JGOMC/MC/CA</a> <a href="#">Cath, Mack, and Tomaszewski</a>	
The scope of TMJ/Oral pain: head and neck pain management in comprehensive dental practice	Review	USA	American Academy of Oral and Maxillofacial Surgery	J Oral Maxillofac Surg 1996; 54: 1179-83	Phelps DJ, Rakh M, Brown CR, Vondracek KE, Hoff PA, van WJ, Jurekian KP, Wigg JR, Lee, Williams R	<a href="#">JL 8026312</a>	
Oral pain guidelines for assessment, diagnosis, and management	Guidelines	USA	American Academy of Oral and Maxillofacial Surgery	Oral Surg Oral Med Oral Pathol 1997; 84: 641-53	Lindberg J, Faraholek S, Patterson A, Rahn M	<a href="#">JL 8026301</a>	
Oral pain: guidelines for assessment, diagnosis, and management	Guidelines	USA	American Academy of Oral and Maxillofacial Surgery	Chicago: Quintessence Publishing Co	Dixon JP, Malhotra C	0987183121	
Management of Temporomandibular Disorders	Review/Statement	USA	NIH, National Institutes of Health	Oral Surg Oral Med Oral Pathol Endod 1996; 82: 1-40		303	
Temporomandibular Disorder Pathogenesis: Treatment and Management Guidelines	Guidelines	USA	American College of Prosthodontics, Committee on TMJ	J Prosthet Dent 1996; 95: 55-64		<a href="#">JL 8026308</a>	
Toward an international consensus on temporomandibular joint disorders	Proceedings	International	Second International Consensus Meeting, April 1992, Buenos Aires, Argentina	Int J Oral Maxillofac Surg 1993; 22: 78-81	Orsi AK	<a href="#">JL 8026302</a>	
Temporomandibular Disorders: guidelines for the classification, assessment and management	Guidelines	USA	American Academy of Oral and Maxillofacial Surgery	Chicago: Quintessence Publishing Co	Dixon JP, Malhotra C	<a href="#">JL 8026303</a>	
Treatment of Temporomandibular Disorders	Proceedings	USA	American Academy of Oral and Maxillofacial Surgery	J Am Dent Assoc 1993; 124: 1535-40		<a href="#">JMI 2173265</a>	



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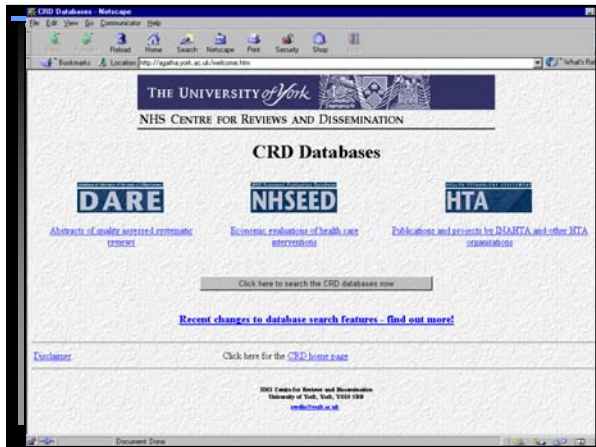
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 Program Cases  
 Managed Care  
 Health Care Costs  
 Elderly Healthcare  
 Mental Health  
 Long-Term Care  
 Methods  
 Rural Health

**Quality Assessment**









**EBD in daily practice**

1. Practice protocols, policies and guidelines based on evidence-based principles
2. Evidence-based summaries generated by others
  - Journals that critically appraise primary studies

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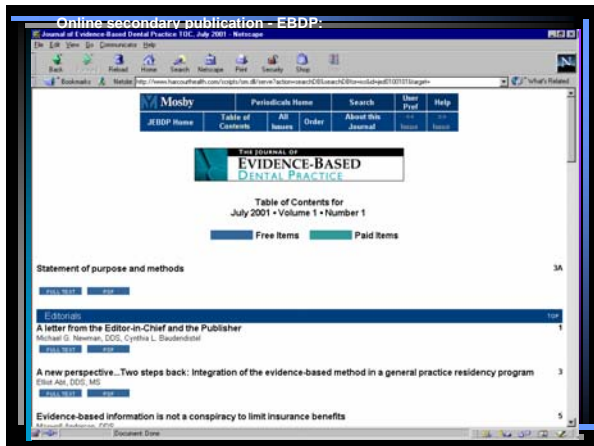
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### EBD in daily practice

1. Practice protocols, policies and guidelines based on evidence-based principles
2. Evidence-based summaries generated by others

- Journals that critically appraise primary studies
- Systematic reviews

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## What are Systematic Reviews

- Clear statement of purpose and scope
- Comprehensive search and retrieval of the relevant research
- Explicit selection criteria
- Critical appraisal of the primary studies
- Reproducible decisions regarding relevance, selection, and methodologic rigor of the primary research
- When quantitative methodology applied -> meta-analysis

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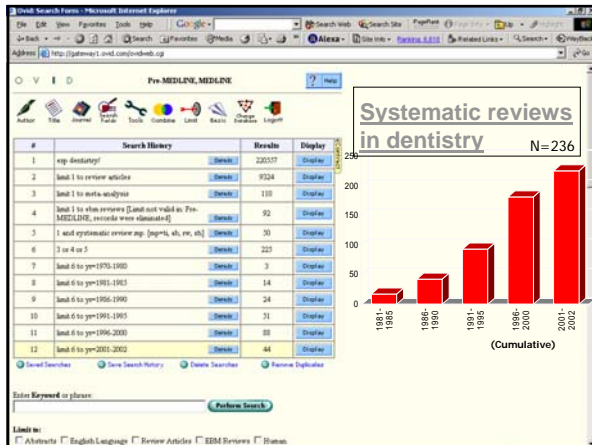
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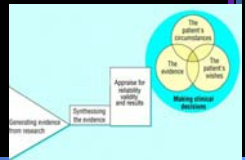
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## EBD in daily practice

1. Practice protocols, policies and guidelines based on evidence-based principles
2. Evidence-based summaries generated by others

- Journals that critically appraise primary studies
- Systematic reviews
  - Cochrane Collaboration
  - NHS R&D
  - Literature




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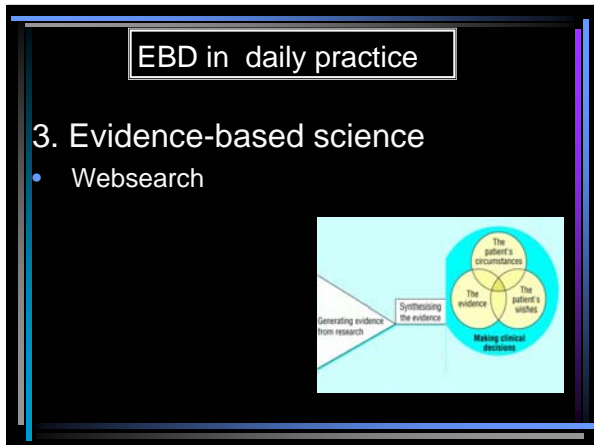
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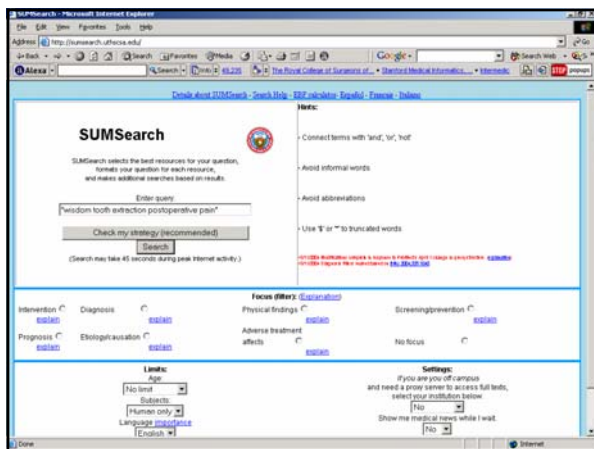
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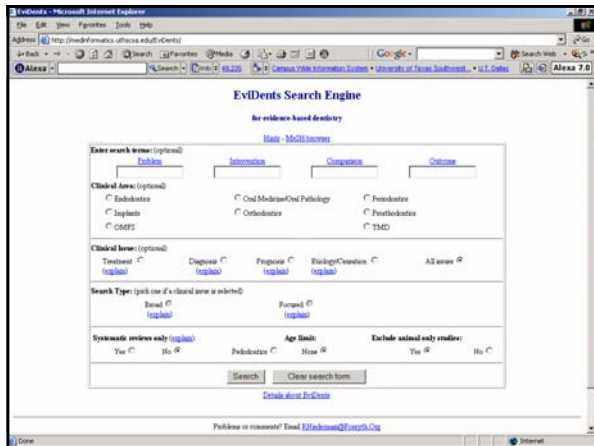
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**EBD in daily practice**

**3. Evidence-based science**

- Websearch
- Emerging resources

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graph LR; A[Generating evidence from research] --> B[Synthesising the evidence]; B --> C((The patient's circumstances & The evidence & The patient's wishes)); C --> D[Making clinical decisions]
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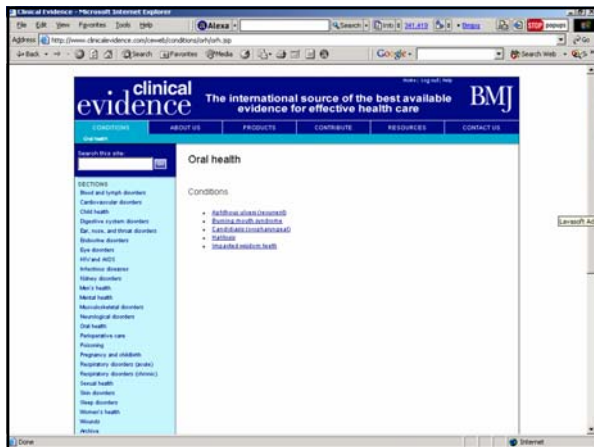
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Specialist Library  
**Oral Health**  
 National Electronic Library for Health

Search

You searched for the category: Oral Disorders

TOTAL RECORDS MATCHED: 53

Guidance and Practice (47)	Reference (8)	Evidence/EPD (6)	Patient Information (5)	Health (1)
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Category matches (2 Records)

- Aphthous Ulcer**  
 Publication Date: 01 Jul 2002  
 Publication Type: Care Guideline  
<http://www.guides.nhs.uk/guidance.asp?guidajf%20ulcer>
- Management of Recurrent Mouth Ulcers**  
 Publication Date: Unspecified  
 Publication Type: Content statement

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[Search & Browse Policy](#) [Information Authority](#)

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