Evidence Based Dentistry

# Quality of Clinical Practice Guidelines

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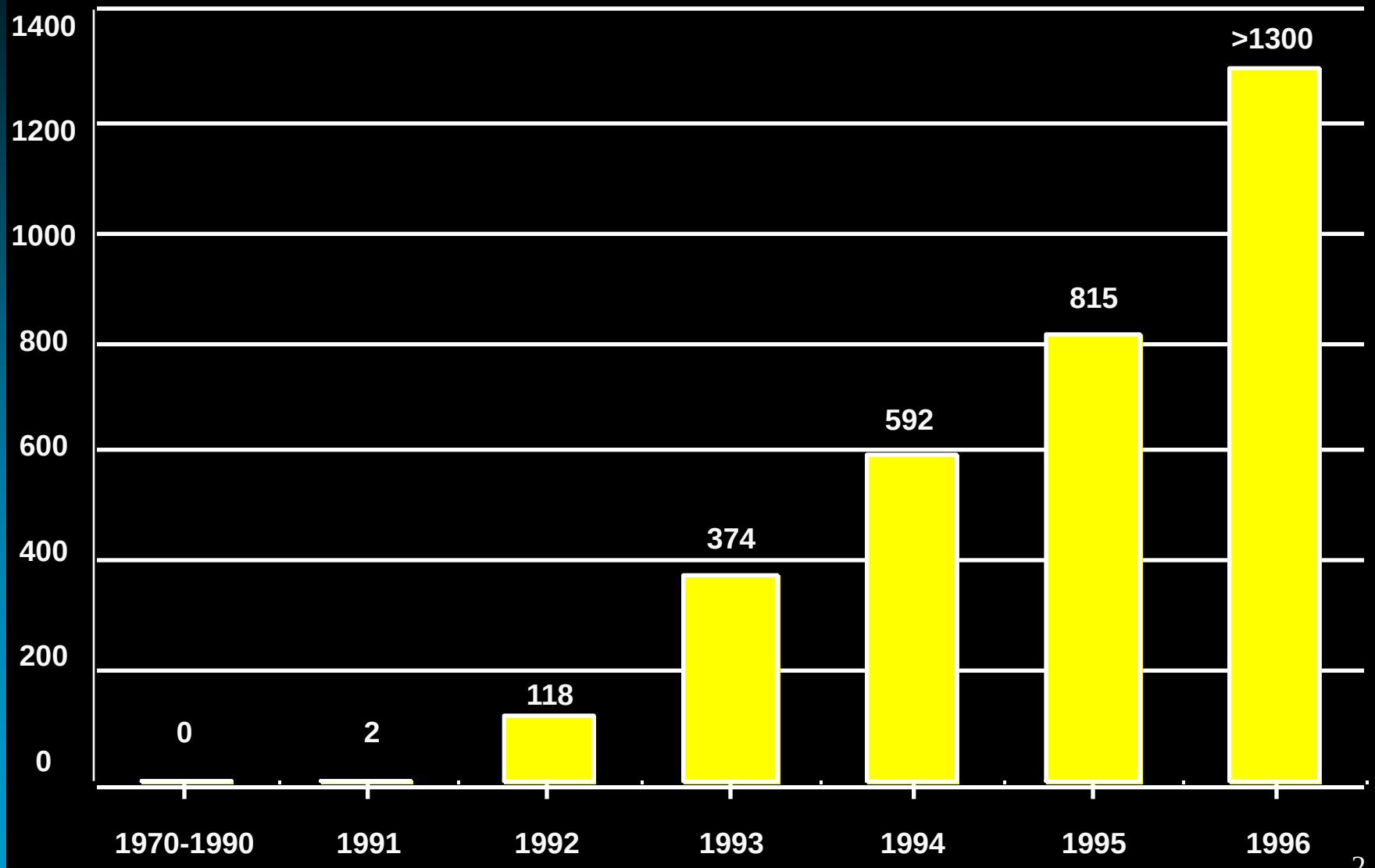
# PRACTICE GUIDELINES IN MEDLINE



# National and International Guidelines & Statements, Position papers, Proceedings, Systematic reviews, Meta-analyses



## Patient issues

| | | | |
|---|---|---|---|
| Endocarditis | [World] | [FDI] | |
| Dental erosion | [World] | [FDI] | [FDI statement] |
| Disabled patients | [World] | [FDI] | |
| Emergency treatment | [World] | [FDI] | |
| Odontophobia, psychology, fear | [World] | [FDI] | |
| Oral mucosal problems | [World] | [FDI] | |
| Saliva and oral health | [World] | [FDI] | |
| Temporomandibular dysfunction | [World] | [FDI] | |

## Public health issues [Top]

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2000 | Year 2000 USAF dental infection control guidelines | Guidelines | USA | USAF Dental Investigation Service | | Bartoloni J | USAF Dental Investigation Service | | infection control |
| 2000 | Virusinfektionen in der Zahnarztpraxis [Virus infections in dentistry] | Statement | Germany/Deutschland | DGZMK, Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde | | Setz J, Borneff-Lipp M | DGZMK, Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde | | infection control hiv |
| 2000 | New Postexposure Protocol for Occupational Exposure to Bloodborne Diseases | Guidelines | USA | ADA, American Dental Association | | | American Dental Association | | infection control hiv safety |
| 2000 | Viral hepatitis and dentistry: an overview. | Review | International | FDI Commission project 97-09 | FDI World 2000; 9(2): 9-13 | Samaranayake LP | Project outcome | | infection control |
| 2000 | Dental Council policy statement on Transmissable Major Viral Infections | Statement | New Zealand | Dental Council of New Zealand | | | Dental Council of New Zealand | | infection control water |
| 2000 | Infection control recommendations for the dental office and the dental laboratory. (Replaces 1988 recommendations, JADA 116:241-8) | Guidelines | USA | ADA, American Dental Association | | | American Dental Association | | infection control |
| 2000 | ADA Statement on Saliva Ejectors | Statement | USA | ADA, American Dental Association | | | American Dental Association | | infection control water |
| 2000 | Creutzfeldt-Jakob Disease | Guidelines | United Kingdom | BDA, British Dental Association | London: BDA Fact File | | BDA | | infection control |
| 1999 | Sterilisation Techniques And Cross-Infection | Guidelines | South Africa | The South African Dental Association | | | SADANET | | infection control safety |
| 1999 | Safety needles. New | Guidelines | USA | NIOSH, National | DHHS (NIOSH) | Cuny EJ, | NIOSH | | infection |

# Justification for developing guidelines

- Demand for effectiveness and efficacy studies increasing
- Outcome measures needing to be developed and utilized
- Guidelines development reveals gaps in scientific justification
- Quality assessment integral to contracts with payers (including government)

# Guidelines - old taxonomy

Practice Standards : Based on strong evidence; Accepted principles of patient management that reflect a high degree of clinical certainty

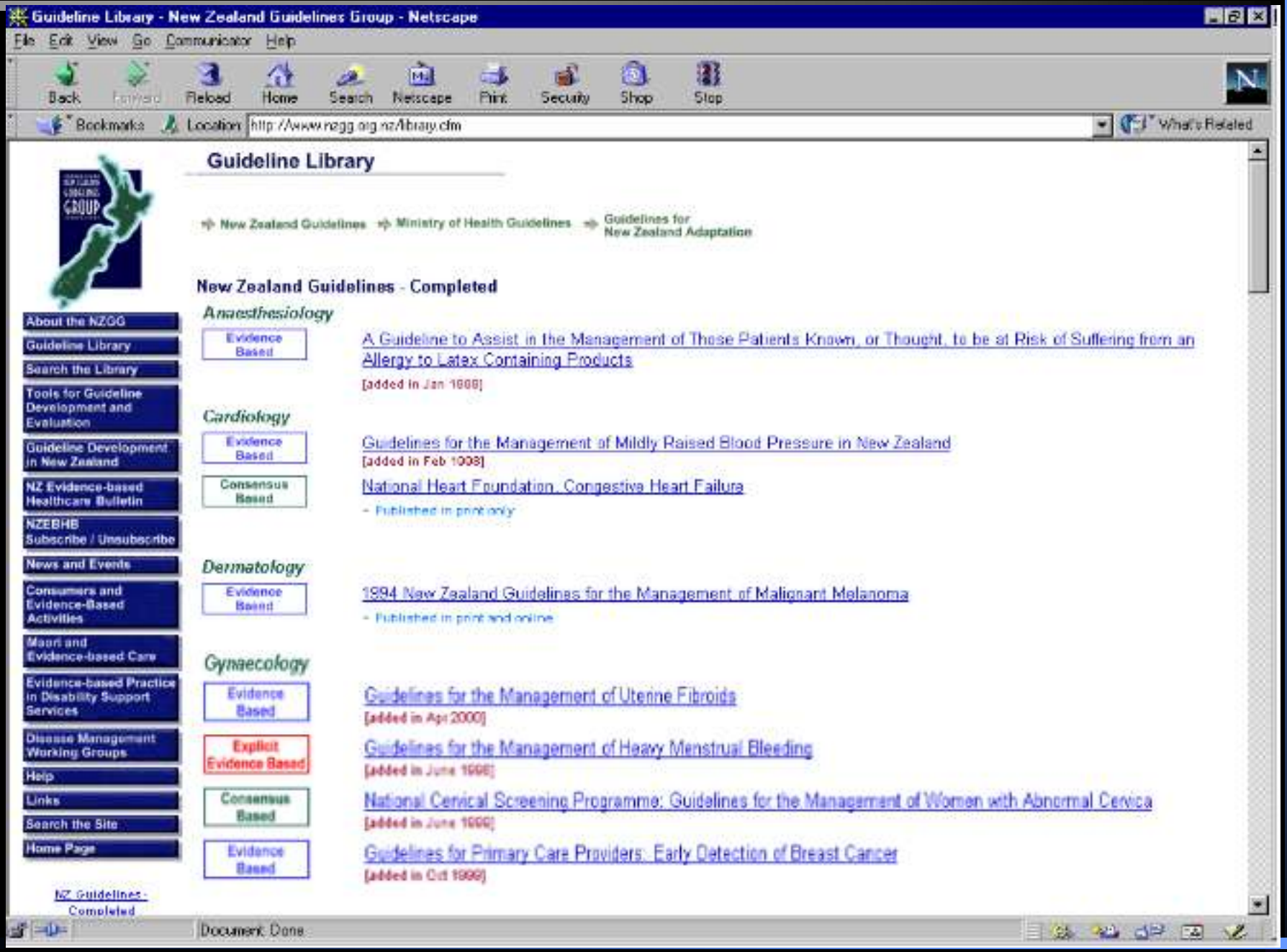
Practice Guidelines: Based on weaker evidence; Recommendations for patient management that reflect a particular strategy or range of management strategies that themselves reflect a moderate degree of clinical certainty

Practice Options ; Based on weakest evidence. Other strategies for patient management for which the clinical utility is uncertain (i.e., based on inconclusive or conflicting evidence or opinion)

# Canadian Task Force on periodic health examinations (1979)

| |
|---|
| **A: Good evidence to intervene** |
| **B: Fair evidence to intervene** |
| **C: Insufficient evidence to recommend for or against intervention** |
| **D: Fair evidence to observe or ignore** |
| **E: Good evidence to observe or ignore** |

| |
|---|
| **Good evidence = strong research-based: directly based on clinical evidence from randomised clinical trials or systematic reviews (recommendation strength A & E)** |
| **Fair evidence = moderate research based: directly based on well conducted clinical trials or extrapolated recommendations based on A (recommendation strength B & D)** |
| **Insufficient evidence = limited research-based: directly based on data from non experimental clinical studies, relevant laboratory studies or extrapolated recommendations based on A and B (recommendation strength C)** |
| **No scientific evidence = expert committees, reports, concensus, clinical experience or extrapolated recommendations based on A,B and C.** |


Guideline Library - New Zealand Guidelines Group - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Location http://www.nzgg.org.nz/library.cfm
What's Related
Guideline Library
New Zealand Guidelines
Ministry of Health Guidelines
Guidelines for New Zealand Adaptation
New Zealand Guidelines - Completed
About the NZGG
Guideline Library
Search the Library
Tools for Guideline Development and Evaluation
Guideline Development in New Zealand
NZ Evidence-based Healthcare Bulletin
NZEBHB Subscribe / Unsubscribe
News and Events
Consumers and Evidence-Based Activities
Maori and Evidence-based Care
Evidence-based Practice in Disability Support Services
Disease Management Working Groups
Help
Links
Search the Site
Home Page
NZ Guidelines - Completed
Anaesthesiology
Evidence Based
A Guideline to Assist in the Management of Those Patients Known, or Thought, to be at Risk of Suffering from an Allergy to Latex Containing Products
[added in Jan 1999]
Cardiology
Evidence Based
Guidelines for the Management of Mildly Raised Blood Pressure in New Zealand
[added in Feb 1998]
Consensus Based
National Heart Foundation, Congestive Heart Failure
- Published in print only
Dermatology
Evidence Based
1994 New Zealand Guidelines for the Management of Malignant Melanoma
- Published in print and online
Gynaecology
Evidence Based
Guidelines for the Management of Uterine Fibroids
[added in Apr 2000]
Explicit Evidence Based
Guidelines for the Management of Heavy Menstrual Bleeding
[added in June 1999]
Consensus Based
National Cervical Screening Programme: Guidelines for the Management of Women with Abnormal Cervica
[added in June 1999]
Evidence Based
Guidelines for Primary Care Providers: Early Detection of Breast Cancer
[added in Oct 1999]
Document Done

# Recommendation grades

| | | |
|---|---|---|
| Practice Standards | **A At least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation.** *(Evidence levels Ia, Ib)* | Explicit evidence based<br>Evidence based |
| Practice Guidelines | **B Availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.** *(Evidence levels IIa, IIb, III)* | |
| Practice Options | **C Obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality.** *(Evidence level IV)* | Consensus based |
| (old taxonomy) | *AHCPR, 1993* | *New Zealand Guidelines Group* |

S I G N

Scottish Intercollegiate Guidelines Network

# Grading System for Recommendations in Evidence-Based Clinical Guidelines

Report of a review of the system for grading recommendations in SIGN guidelines

*March 2000*

## SIGN - GRADES OF RECOMMENDATIONS

**A**

- **At least one meta analysis, systematic review, or RCT rated as 1 ++ , and directly applicable to the target populatio*n; or***
- **A body of evidence consisting principally of studies rated as 1 + , directly applicable to the target population, and demonstrating overall consistency of results**

**B**

- **A body of evidence including studies rated as 2 ++ , directly applicable to the target population, and demonstrating overall consistency of result*s; or***
- **Extrapolated evidence from studies rated as 1 ++ or 1 +**

**C**

- **A body of evidence including studies rated as 2 + , directly applicable to the target population and demonstrating overall consistency of result*s; or***
- **Extrapolated evidence from studies rated as 2 ++**

**D**

- **Evidence level 3 or *4; or***
- **Extrapolated evidence from studies rated as 2 +**

# Guidelines appraisal questions

1. Are the clinical practice guidelines valid?
2. What are the recommendations?
3. Will the recommendations help locally?

# Are the clinical practice guidelines valid?

1. Were all important options and issues clearly specified?
2. Was an explicit and sensible process used to identify, select and combine evidence?
3. Was an explicit and sensible process used to consider the relative value of different outcomes?

# Are the clinical practice guidelines valid?

4. Is the guideline likely to account for important recent developments?

5. Has the guideline been subject to peer review and testing*?*

# New Zealand Guidelines Group

- Who developed the guidelines?
- Why did they develop the guideline?
- Is the guideline development process described? (if so, what process was used?)
- What is the strength of the evidence?
- Does the guideline possess the attributes of a good guideline?
- Has the guideline been successfully piloted or implemented?

# What are the recommendations?

6. Are practical, clinically important recommendations made?
7. How strong are the recommendations?
8. What is the impact of uncertainty associated with the evidence and values used in the guidelines?

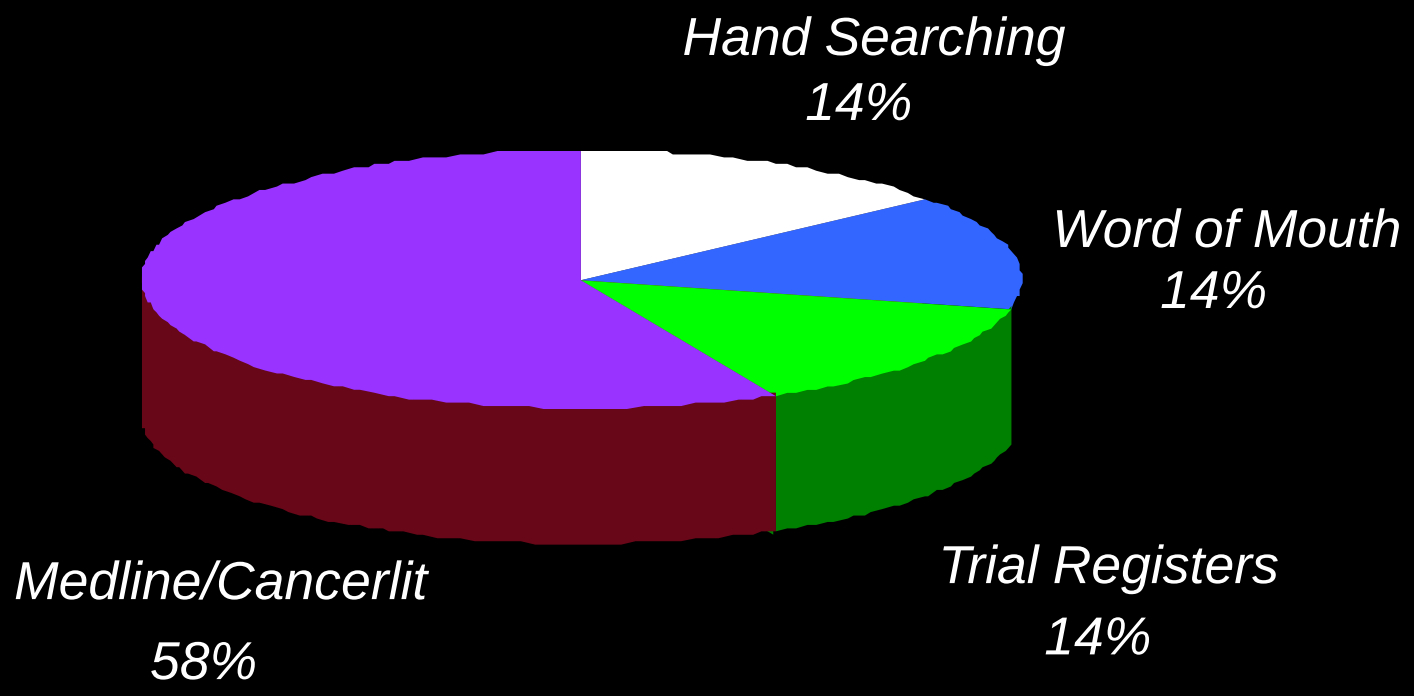
# Will the recommendations help locally?

9. Is the primary objective of the guideline consistent with my objective?

10. Can the recommendations be applied to my local population?

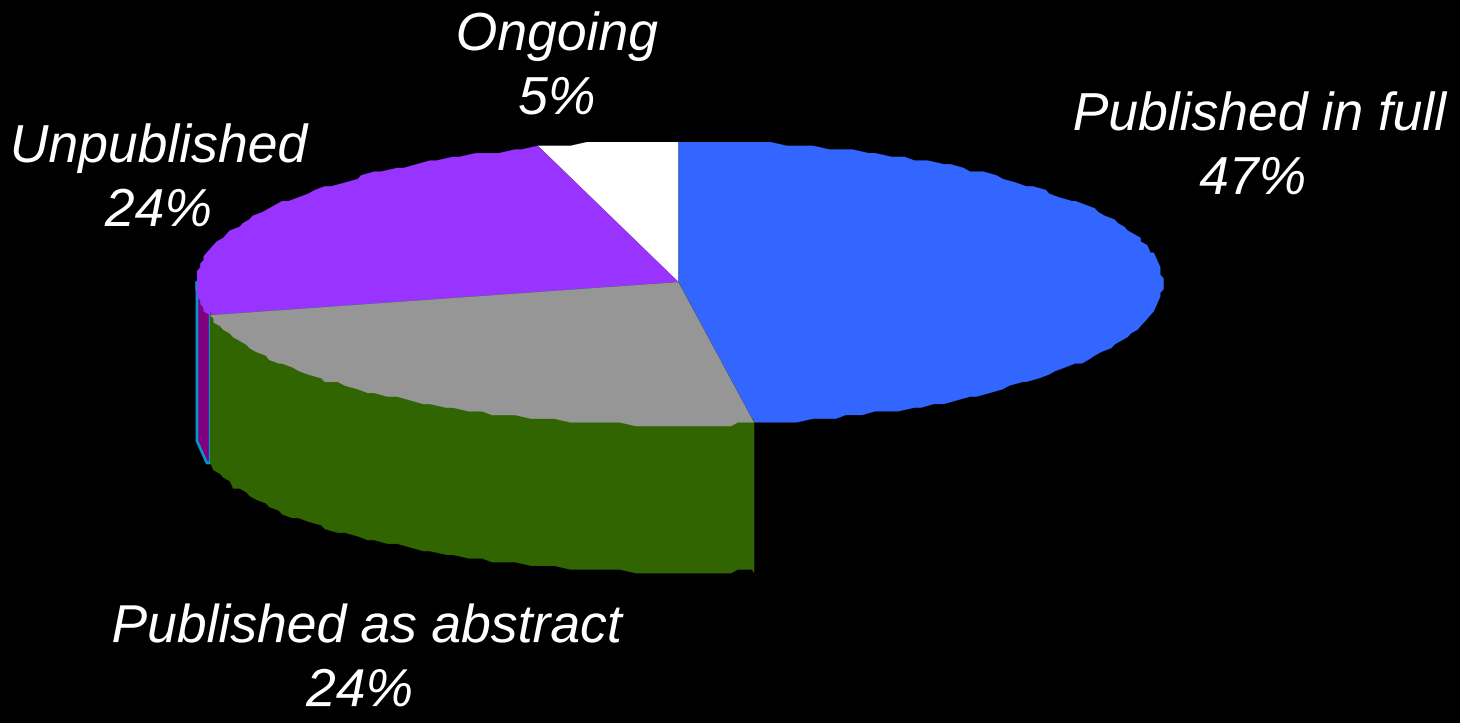
# Developing clinical practice guidelines - selection of evidence

# Identification of Trials




Meta-analysis of neoadjuvant chemotherapy for cervix cancer. Lesley, et al. Statistics in Medicine 1995 14: 2057-79

# Identification of Trials




Meta-analysis of neoadjuvant chemotherapy for cervix cancer. Lesley, et al. Statistics in Medicine 1995 14: 2057-79

# Relationship between Guidelines and Evidence

- Guidelines should be related to scientific and clinical evidence
- Empirical evidence should take precedence over expert judgement
- A thorough review of the literature should precede guideline development
- The scientific literature should be evaluated and weighted
- Evidence must be ranked and linked to strength of guidelines

# PROCESS

- Formulate the clinical question
- Search the literature for evidence
- Choose papers to be evaluated
- Critically evaluate the papers
- Classify by level of evidence

# Practice Guidelines - types of articles and reports

Therapeutic effectiveness

Diagnostic test evaluation

Natural history/prognosis studies

Outcome measure evaluation

# Articles and Reports Used in Developing Practice Guidelines for Therapeutic effectiveness

Randomized controlled trials

Non-randomized cohort studies
Case-control studies

Case series
Case reports
Expert opinion

# Articles and Reports Used in Developing Practice Guidelines for Diagnostic test evaluation

Sensitivity
Specificity
Positive predictive value - PPV
Negative predictive value - NPV
Likelihood ratio - LR

RECOMMENDATIONS FOR THE USE OF DIAGNOSTIC TESTS ARE BASED ON DIAGNOSTIC ACCURACY AND NOT ON PATIENT OUTCOME

# Articles and Reports Used in Developing Practice Guidelines for Natural history/prognosis studies

- Longitudinal
- reliable outcome measures
- good follow-up
- uniform cohort
- etc.

RECOMMENDATIONS BASED ON PROGNOSIS STUDIES ARE NOT POSSIBLE, THEY SIMPLY GIVE AN IDEA OF OUTCOME AND THE STRENGTH OF THE EVIDENCE PROVIDING THAT IDEA