Finding the Evidence

A guide to identifying the best available evidence to inform the development of procedures and clinical guidelines at Monash Health

Purpose
This guide aims to help Monash Health staff to find the **best available evidence** in the **shortest possible time** to inform the development of procedures and clinical guidelines.

In particular, it will help Monash Health staff to complete the required process for developing an evidence-based procedure or clinical guideline.

This guide is designed to be pragmatic and meet the needs of clinicians and managers. The focus is on finding the best available synthesised evidence; it is not a guide to conducting a systematic review.

Further Assistance
If you need advice on **identifying the best available evidence** or the **clinical guideline process**, please contact:
Angela Melder, Manager, Centre for Clinical Effectiveness
Phone: 9594 7575 Email: Clinicalguidelines@monashhealth.org

If you need advice regarding the process for **developing new or revising current procedures**, please contact:
Policy and Procedures Administrator
Phone: 9594 4038 Email: policiesandprocedures@monashhealth.org
Incorporating evidence into Monash Health procedures and clinical guidelines

- Monash Health expects all procedures and clinical guidelines to be based on the best available evidence.
- The approach to developing evidence-based procedures or clinical guidelines at Monash Health is rigorous but pragmatic, using a modified systematic review methodology that is achievable by clinical staff within the health service context.
- The process relies on initially identifying existing evidence-based guidelines, systematic reviews, health technology assessments and high level studies (such as controlled trials for therapies and cohort studies for diagnostic tests) and if no high quality evidence exists then the next best available evidence to use is expert consensus.
- An overview of the process is presented below.
Useful Resources

**Finding Evidence Based Clinical Guidelines**
- BMJ Best Practice (log in via Monash Health Library)
- Clinical Practice Guidelines Portal (NHMRC)
- TRIP Database
- The National Institute for Health and Care Excellence (NICE)

**Finding Systematic Reviews & Health Technology Assessments**
- Cochrane Library
- Medical Services Advisory Committee (MSAC)
- PubMed Clinical Queries
- Adelaide Health Technology Assessment (AHTA)

**Finding Clinical Trials**
- Cochrane Library
- PubMed Clinical Queries
How to assess the quality of identified evidence

Evidence-based clinical guidelines

The quality of evidence-based clinical guidelines can be appraised using the internationally recognised ‘Appraisal of Guidelines Research and Evaluation (AGREE) Instrument’. The AGREE Instrument provides a framework for assessing the quality of clinical practice guidelines and can be applied to any disease area including those for diagnosis, health promotion, treatment or interventions.

It is recommended that any clinical guideline be appraised by at least two appraisers.

Before undertaking a full appraisal of a guideline it is suggested that the following “benchmark questions” be answered first.

Benchmark questions

1. Were systematic methods used to search for evidence? The guideline should provide clear information about the search strategy, including databases or other sources, and the search terms used.

2. Is there an explicit link between the recommendations and the supporting evidence? It is important to link the recommendations with the evidence that underpins them. Each recommendation should be linked to a list of references on which it is based, or the absence of evidence should be explicitly stated.

If you answered YES to either benchmark question please refer to the resources linked below to complete the appraisal of your clinical guideline using the AGREE instrument.

If you answered NO to the benchmark questions then you cannot be confident that the guideline is evidence-based and may not want to proceed with a full appraisal.

Appraisal resources

AGREE II Manual and Checklist Questions:


AGREE II Checklist Questions only:

# Systematic Reviews, Health Technology Assessments, Clinical Trials

**Questions to evaluate the effectiveness of interventions**

<table>
<thead>
<tr>
<th><strong>Systematic Review</strong></th>
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<td><strong>Conflict of Interest</strong></td>
<td>▪ Did the authors declare any conflicts of interest? (eg link to the manufacturer/received funding from parties with vested interest)</td>
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</table>
| **Subject Selection** | ▪ Does the study have a focused research question?  
▪ Does the study document a comprehensive search strategy?  
▪ Does the study have specified inclusion/exclusion criteria? |
| **Blinding** | ▪ Were reviewers blind to authors, institutions and affiliations? |
| **Assessment of outcome/exposure/intervention** | ▪ Was the validity of included trials appraised?  
▪ Was the homogeneity between included studies assessed?  
▪ Does the study present a summary of the main results?  
▪ Were the strengths and limitations of included studies discussed? |

<table>
<thead>
<tr>
<th><strong>Randomised Control Trial</strong></th>
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| **Subject Selection** | ▪ Does the study have specified inclusion/exclusion criteria?  
▪ Does the study have an adequate method of randomisation?  
▪ Were groups similar at baseline? |
| **Blinding** | ▪ Was allocation to treatment group concealed?  
▪ Were patients/investigators/assessors blind to treatments? |
| **Follow-up** | ▪ Was there sufficient duration to follow-up?  
▪ Were less than 20% of participants lost to follow-up? |
| **Assessment of outcome/exposure/intervention** | ▪ Were outcomes assessed objectively and independently?  
▪ Were all patients analysed in the groups to which they were randomised, regardless of whether or not they completed or received treatment? (Intention-To-Treat analysis) |

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### Questions to evaluate the accuracy of diagnostic tests

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<th>Details</th>
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<td>Does the study have specified inclusion/exclusion criteria?</td>
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<td>Is there an explicit description of the study subjects?</td>
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<td>Is there an appropriate spectrum of consecutive patients who would normally be tested for the disorder of interest and whose disease status is not known?</td>
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<tr>
<td><strong>Test</strong></td>
<td>Was an appropriate ‘gold standard’ reference test used?</td>
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<td></td>
<td>Were all participants assessed with both study test and reference standard test?</td>
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<tr>
<td><strong>Assessment of outcome/exposure/intervention</strong></td>
<td>Was the assessment of test outcomes independent?</td>
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<tr>
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<td>Were assessors blind to the result of the other test?</td>
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<td>Was both sensitivity and specificity, or number of true positive, false positives, true negatives and false negatives reported?</td>
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**NHMRC Levels of Evidence**

**NHMRC Evidence Hierarchy: designations of 'levels of evidence' according to type of research question**

<table>
<thead>
<tr>
<th>Level</th>
<th>Intervention 1</th>
<th>Diagnostic accuracy 2</th>
<th>Prognosis</th>
<th>Aetiology 3</th>
<th>Screening Intervention</th>
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<tr>
<td>I 4</td>
<td>A systematic review of level II studies</td>
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<td>II</td>
<td>A randomised controlled trial</td>
<td>A study of test accuracy with: an independent, blinded comparison with a valid reference standard, among consecutive persons with a defined clinical presentation</td>
<td>A prospective cohort study</td>
<td>A prospective cohort study</td>
<td>A randomised controlled trial</td>
</tr>
<tr>
<td>III-1</td>
<td>A pseudorandomised controlled trial (i.e. alternate allocation or some other method)</td>
<td>A study of test accuracy with: an independent, blinded comparison with a valid reference standard, among non-consecutive persons with a defined clinical presentation</td>
<td>All or none</td>
<td>All or none</td>
<td>A pseudorandomised controlled trial (i.e. alternate allocation or some other method)</td>
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</table>
| III-2 | A comparative study with concurrent controls:  
  - Non-randomised, experimental trial  
  - Cohort study  
  - Case-control study  
  - Interrupted time series with a control group | A comparison with reference standard that does not meet the criteria required for Level II and III-1 evidence | Analysis of prognostic factors amongst persons in a single arm of a randomised controlled trial | A retrospective cohort study | A comparative study with concurrent controls:  
  - Non-randomised, experimental trial  
  - Cohort study  
  - Case-control study |
| III-3 | A comparative study without concurrent controls:  
  - Historical control study  
  - Two or more single arm study  
  - Interrupted time series without a parallel control group | Diagnostic case-control study | A retrospective cohort study | A case-control study | A comparative study without concurrent controls:  
  - Historical control study  
  - Two or more single arm study |
| IV    | Case series with either post-test or pre-test/post-test outcomes | Study of diagnostic yield (no reference standard) | Case series, or cohort study of persons at different stages of disease | A cross-sectional study or case series | Case series |

Reference: Merlin T, Weston A, Tooher R. Extending an evidence hierarchy to include topics other than treatment: revising the Australian 'levels of evidence'. BMC Medical Research Methodology, 2009.