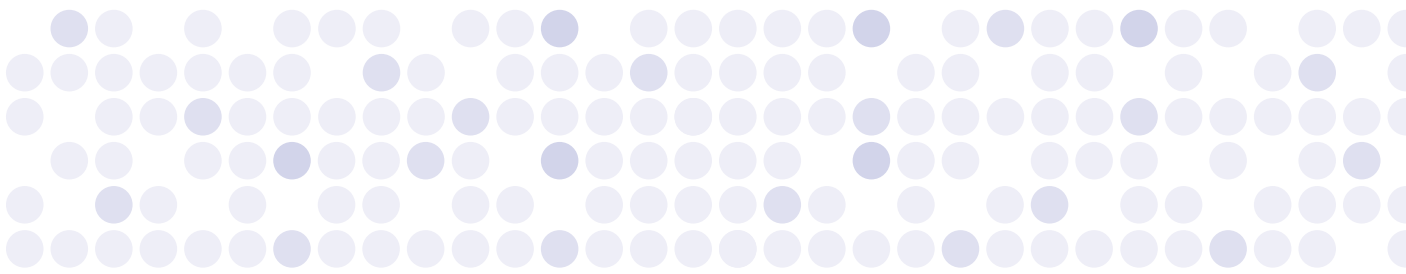


Clinical guidelines for the Queensland workers' compensation scheme

Research scope





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Executive summary

In November 2006 Q-COMP commissioned CMVH to undertake a clinical practice guidelines scoping study. The major objectives were to perform an audit of the existing national and international clinical practice guidelines in key workers' compensation injury areas, to identify relevant content and gaps in any guidelines, and to develop recommendations for using any relevant clinical guidelines.

Q-COMP identified its 21 priority conditions for study – principally musculoskeletal, but also several psychiatric conditions (PTSD, anxiety/stress).

A systematic and thorough review of major clinical practices guidelines databases and sources was conducted to identify any existing national and international clinical practice guidelines in the key injury areas. Additionally, specific interrogation was undertaken on workers' compensation authorities in Australia, US, Canada and NZ.

The guidelines that were identified were then assessed for quality and relevance by using a recognized evaluation instrument (AGREE) designed for use with clinical practice guidelines.

In order to assess the relevance of those selected guidelines to the workers' compensation process, an additional (Q-COMP relevance) instrument was developed in consultation with Q-COMP, and applied and scored by two experienced occupational physicians.

Finally, a register containing all of the identified guidelines, together with their Q-COMP relevance assessment was assembled.

The study revealed a surprising dearth of well researched clinical practice guidelines relevant to the workers compensation sector. In general, there were two major sources of reasonable quality guidelines – the American College of Occupational and Environmental medicine (ACOEM), and the Work Loss Data Institute (Corpus Christi - TX). Both of these sources are commercially available, and provide a comprehensive collection of clinical guidelines that are relevant to health practitioners working in the workers' compensation system. Other guidelines were identified, but in the main, these were of lesser quality or relevance, and tended to come from quite disparate sources.



Background

The *Workers' Compensation and Rehabilitation Act 2003* (the Act) established Q-COMP as an independent regulatory authority from 1 July 2003, with a Board of seven members appointed by the Governor in Council. The authority's primary function under the Act is to regulate the workers' compensation scheme. The Act sets out very clearly the specific functions and powers that enable Q-COMP to enforce the Act as the Regulator.

Q-COMP's functions under the Act are:

- Monitor insurer performance and compliance;
- Decide self-insurance applications;
- Review insurers' decisions;
- Manage appeals';
- Support and oversee efficient administration of medical assessment tribunals;
- Accredite workplaces and monitor rehabilitation compliance;
- Provide rehabilitation advisory schemes;
- Maintain a scheme-wide database;
- Promote education about the scheme;
- Collect fees, eg. Rehabilitation coordinator registration; and
- Administer grants, eg. Workers' compensation information services, workplace health and safety programs.

Q-COMP has a broad base of stakeholders including:

- Workers' compensation insurers – Workcover Queensland and 26 self-insurers;
- Unions – primarily through the Queensland Council of Unions and the Australian Workers' Union;
- Workers who have had contact with Q-COMP through review, appeals and tribunal processes;
- Industry associations – Ai Group and Commerce Queensland;
- Employers – primarily those who have had contact with Q-COMP through review and workplace rehabilitation accreditation processes;
- The medical profession and their associations;
- Allied health profession and their associations;
- The legal profession; and
- Government – primarily the Department of Industrial Relations.

The Clinical Practice Guidelines are designed to support Q-COMP's medical and allied health stakeholders in the management of key workers' compensation injuries. Clinical Practice Guidelines include examples such as ACC:Best Practice Evidence based Guidelines; Dr Presley Reed: Disability Duration Guidelines; and Victoria Workcover: Framework for Clinical Practice.



Aims and objectives

The aims of the Stage 1 clinical practice guidelines scoping research are to:

- a) Perform an audit of the existing national and international clinical practice guidelines in the key injury areas defined by Q-COMP;
- b) Identify relevant content and gaps for the key injury areas as defined by Q-COMP; and
- c) Develop recommendations for the utilisation of any relevant existing clinical guidelines.

The objectives for this project are:

- a) Register of relevant clinical guidelines for the QLD WC Scheme;
- b) Recommendations of which existing guidelines can be used and options for how they can be accessed by Q-COMP;
- c) Documentation of consultation with relevant medical bodies/colleges and other jurisdictions; and
- d) Final technical report.

Methodology

Register development process

Determination of the 21 priority conditions

The health conditions included were prioritised according to the:

- Prevalence of the condition in the scheme;
- Cost of condition to the scheme; and
- Contentiousness of condition from the point of view of management i.e. extent to which there is wide variation in treatments for that condition.

The contractual agreement was for CMVH to consider the top 20 priority conditions.

This list of health conditions was then further scrutinised by a review of Q-COMP data with Q-COMP personnel to determine a list of conditions to be included in the scoping study. This whole process was undertaken by Q-COMP and a list of the priority conditions was presented to CMVH. The agreed listing included 21 conditions and CMVH agreed to include the additional condition without contract variation.

The 21 priority conditions as determined by Q-COMP are listed in Table 1.

Table 1: The key injury areas/priority conditions as determined by Q-COMP

	Key injury area/ keywords
Back	Strain Back pain Sciatica Disc prolapse/herniation/degeneration
Neck	Cervicalgia/wry neck
Shoulder	Tendinitis/tendonosis Rotator cuff
Elbow	Epicondylitis
Wrist	Synovitis/tenosynovitis Carpel tunnel syndrome
Thumb	Synovitis/tenosynovitis
Knee	ACL Meniscal Ligamentous/collateral ligaments PCL Other acute knee injuries
Ankle	Non traumatic muscle/tendon strain
Burns	All
Hernia	Abdominal wall
Psychiatric	PTSD Anxiety/stress disorders



Literature review

A systematic approach was adopted for conducting the audit of the existing national and international clinical practice guidelines in the key injury areas defined by Q-COMP.

Search strategy

It was decided to adopt a phased search strategy. Phase 1 was undertaken for each of the key injury areas/priority conditions. A second phase of searching was undertaken only for those conditions which yielded no results using the first phase of searching.

Phase 1

A pilot literature review was initially developed to identify an appropriate strategy for the search. Current “pre-appraised” clinical practice guidelines under the injury area “strain/sprain –other” was used as the overarching keyword. This term was selected from Q-COMPs’ “Request for Offer” for clinical practice guideline scoping research Version 2. These processes were defined and the methodology documented and presented to Q-COMP for feedback and approval.

Following confirmation by QCOMP of the tested methodology a comprehensive literature search process was undertaken for the twenty one priority conditions determined by Q-COMP. The process undertaken was identical for each of the twenty priority conditions.

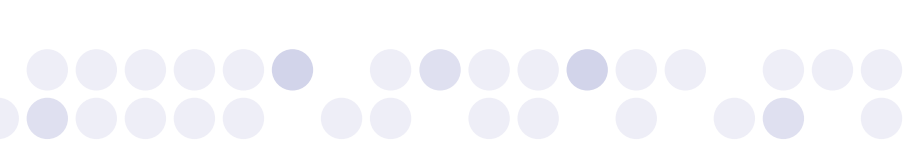
The key words and phrases that were employed in the search strategy were:

- **Back:** Back strain, back pain, herniation and back, sciatica, degeneration and back, disc prolapse;
- **Neck:** Cervicalgia, wry neck;
- **Shoulder:** Rotator cuff, shoulder tendonitis, shoulder tendonosis;
- **Elbow:** Epicondylitis;
- **Wrist:** Synovitis and wrist, tenosynovitis and wrist, carpel tunnel syndrome;
- **Thumb:** Synovitis and thumb, tenosynovitis and thumb;
- **Knee:** Anterior cruciate ligament, meniscal, posterior cruciate ligament, collateral ligaments, acute knee injuries;
- **Ankle:** Ankle and muscle strain, ankle and tendon strain;
- **Burns:** Burns;
- **Hernia:** Abdominal wall hernia; and
- **Psychiatric:** PTSD, stress disorders, anxiety disorders.

Each key word/phrase was searched for independently using the criteria described below.

The search was limited to:

- **Guideline categories:** diagnosis, evaluation, management, treatment.
- **Intended users:** physicians;
- **Age range:** Adult (19–44 years), Middle Age (45–64 years);
- **Publication date(s):** 2207, 2006, 2005, 2004, 2003,2002, 2001, 2000;
- **Databases/sources:**
 - G-I-N Guidelines International Network
www.g-i-n.net/
 - Canada: CMA Infobase (Clinical practice guidelines) (G-I-N related links)
<http://mdm.ca/cpgsnew/cpgs/index.asp>
 - National Health and Medical Research Council NHMRC (Clinical practice guidelines) (G-I-N related links)
www.nhmrc.gov.au/publications/subjects/clinical.htm
 - NSW Health (G-I-N related links)

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- www.health.nsw.gov.au/search.asp?qText=Clinical+practice+guideline*&collection=wwwsite&QueryMode=keyword&Submit.x=6&Submit.y=4
 - Australia: eMJA Guidelines
www.mja.com.au/public/guides/guides.html
 - Ministry of Health Singapore (G-I-N related links)
www.moh.gov.sg/corp/publications/list.do?id=pub_guide_clinics
 - UK: eLSC Practice Guidance & Standards Database (G-I-N related links)
www.scie-socialcareonline.org.uk
 - NZ: Department of Labour
www.osh.dol.govt.nz/order/catalogue/index.shtml
 - NZ: Ministry of Health
www.moh.govt.nz/moh.nsf/wpg_Index/Publications-Guidelines
 - NZ: New Zealand Guidelines Group
www.nzgg.org.nz/index.cfm?fuseaction_10&fusesubaction=docs&document1
 - Cochrane Library
<http://www3.interscience.wiley.com/cgi-bin/mrwhome/106568753/HOME/?CRETRY=1&SRETRY=0>
 - UK: National electronic Library for Health
www.nelh.nhs.uk/
 - Health Technology Assessment International (HTAi)
www.htai.org
www.htai.org/vortal

The same limits and keywords were used in each database/source searched.

Phase 2

- Databases/sources:
 - Health-related journals in Guideline Resources of BMJ.COM
<http://bmj.bmjournals.com/cgi/collection/guidelines>
 - The Scottish Intercollegiate Guidelines Network initiative (SIGN)
www.sign.ac.uk/guidelines/index.html
 - The Agency for Health Care Policy and Research, (AHCPR) USA
www.ahrq.gov
 - The National Health and Medical Research Council (NHMRC)
www.nhmrc.gov.au
 - International Network of Agencies for Health Technology Assessment
www.inahta.org/inahta_web/index.asp
 - International Society for Quality in Health Care (ISQua)
www.isqua.org.au
www.intqhc.oxfordjournals.org

Screening of titles

For each condition the results of each search were scrutinised, by 2 people independently, and screened for inclusion in the appraisal process.

Guideline appraisal

Guidelines were appraised using the Appraisal of Guidelines Research & Evaluation (AGREE) instrument. The purpose of the AGREE instrument is to provide a systematic framework for assessing the quality of clinical practice guidelines.



Clinical practice guidelines are ‘systematically’ developed statements to assist practitioner and patient decision making about appropriate health care for specific clinical circumstances’ (Lohr & Field, 1992). Their purpose is ‘to make explicit recommendations with a definite intent to influence what clinicians do’ (Hayward et al., 1995).

Quality of clinical practice guidelines refers to the confidence that the potential biases of guideline development have been addressed adequately and that the recommendations are both internally and externally valid, and are feasible for practice. This process takes into account the benefits, harms, and costs of the recommendations, as well as the practical issues attached to them. The assessment includes judgements about the methods for developing the guidelines, the content of the final recommendations and the factors linked to their uptake.

The AGREE instrument assesses both the quality of the reporting, and the quality of some aspects of recommendations. It provides an assessment of the predicted validity of a guideline, that is, the likelihood that it will achieve its intended outcome.

The AGREE instrument is designed to assess guidelines developed by local, regional, national or international groups or affiliated governmental organisations. The AGREE instrument is generic and can be applied to guidelines in any disease area including those for diagnosis, health promotion, treatment or interventions. It is suitable for guidelines presented in paper or electronic format.

The AGREE instrument consists of 23 key items organised in six domains. Each domain is intended to capture a separate dimension of guideline quality:

1. scope and purpose
2. stakeholder involvement
3. rigour of development
4. clarity and presentation
5. applicability
6. editorial independence

Each item is rated on a 4-point scale ranging from 4 ‘Strongly agree’ to 1 ‘Strongly disagree’, with two mild points ‘agree’ and ‘disagree’. The scale measures the extent to which a criterion has been fulfilled.

Each guideline was assessed by 2 appraisers to increase the reliability of the assessment.

Domain scores were calculated by summing up all the scores of the individual items in a domain and by standardising the total as a percentage of the maximum score possible for that domain.

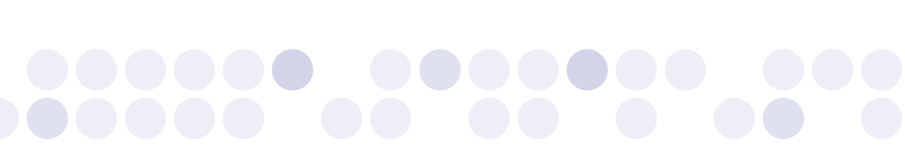
An overall assessment is included at the end of the instrument. The overall assessment requires the appraiser to make a judgement as to the quality of the guideline, taking each of the appraisal criteria into account.

A copy of the AGREE instrument can be found in Appendix A.

Determination of relevance/appropriateness to the workers’ compensation sector

In order to determine the relevance/appropriateness of each guideline to the Workers Compensation sector CMVH and Q-COMP developed a list of issues that should be considered when assessing whether a guideline could be useful to the Workers Compensation sector. These issues included:

- Are functional status and return to work considered as key outcomes of interventions?
- Is rehabilitation (physical and vocational) specifically considered as interventions?
- Are the various rehabilitation approaches assessed for effectiveness?
- Is there some consideration of identifying risk factors (eg yellow flags, red flags) for poor recovery?
- Is “return to work” considered as a process – when should this occur, how should fitness to return to work be assessed, etc?
- Are psychosocial factors and their potential impact on recovery considered in the guideline?



An instrument was devised which allowed these issues to be considered and appraised in a similar manner to the domains of guidelines assessed by the AGREE instrument.

The instrument represented an attempt to quantify the extent to which the guideline considered the following factors;

- graded increases in activity and function
- psychosocial factors that may influence recovery
- the Return to Work Process (vocational rehabilitation)
- To what degree does the guideline consider risk factors for recovery

A copy of the instrument can be found in Appendix B.

In addition various domains of the AGREE instrument were considered for assessing the appropriateness/relevance to the Workers Compensation sector.

- Applicability – this forces some consideration of the workplace context
- Methodology – this ensures that the search strategy has been comprehensive

These data are presented together in the register and are used to make an overall determination of the relevance/appropriateness of the guideline to the Workers Compensation Sector.

Two experienced occupational physicians then scored each of guidelines with the workers' compensation relevance instrument (Appendix B), and provided a final assessment of the guideline's clinical and workplace relevance and applicability.

The guidelines are presented in a regional format. Hence, neck conditions are described with other back conditions. This reflects the format of a number of guidelines eg the American College of Occupational and Environmental medicine (ACOEM) guidelines, and the Work Loss Data Institute (Corpus Christi - TX) guidelines which deal with back and neck disorders together in the one document.

Data abstraction

Following consultation with Q-COMP it was agreed that the data that would be extracted from each guideline and included as part of the register were:

1. guideline name
2. developed by
3. guideline status
4. where located/how accessed
5. description/scope
6. outcomes considered

A copy of the data abstraction template can be found in Appendix C.

Register

The register of clinical practice guidelines is presented with the following headings:

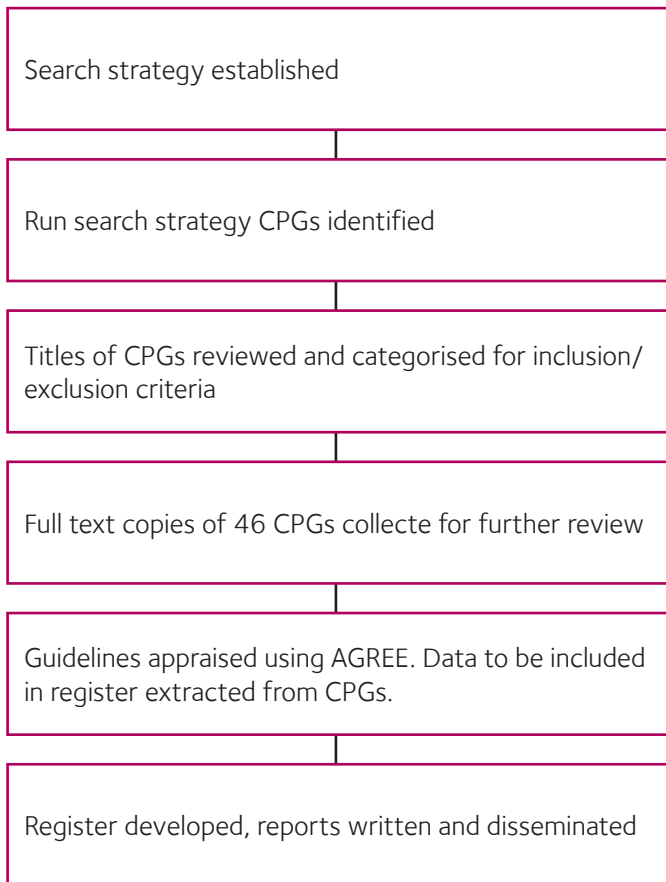
1. Guideline Name
2. Developed By
3. Guideline Status
4. Where located/how accessed
5. Description/scope



- 6. Outcomes considered
- 7. AGREE appraisal
 - a. Scope and purpose
 - b. Stakeholder involvement
 - c. Rigour of development
 - d. Clarity and presentation
 - e. Applicability
 - f. Editorial Independence
 - g. Overall assessment
- (8) Relevance/Appropriateness of use in the Workers Compensation Sector
- (9) Priority for Q-COMP

A summary of the scoping process is provided in Figure 1.

Fig.1 Flowchart of the scoping process





Gaps

The major issue which emerged for the study was the general lack of any Australian derived evidence based guidelines relevant to the Q-COMP subject areas. Most of the identified guidelines are US based, which has some limitations – the US medical and workers' compensation systems can differ from Queensland and this can significantly impact on the overall management of various conditions. This was quite evident in the area of psychiatric management, and there is a need for any recommended guidelines to be reviewed by relevant Australian specialists to ensure compatibility with Australian health management practice.

The study revealed a number of gaps in the availability of evidence based clinical practice guidelines relevant to the workers compensation sector. In particular, it was not possible to identify any suitable guidelines specific to work-related hernia and thumb injuries and conditions.

Both the American College of Occupational and Environmental medicine (ACOEM) guidelines, and the Work Loss Data Institute (Corpus Christi – TX) guidelines cover work-related hand injuries and conditions. As such, there is some consideration of thumb conditions such as de Quervain's tenosynovitis, and ligament/tendon strains. However, overall these guidelines are generally non-specific and the consideration of thumb conditions is quite general. There is a need for the development of more focussed guidelines in this area.

Similar problems emerged with hernia conditions – where it was not possible to identify any suitable guidelines that dealt with the management of work-related hernia conditions.

Recommendations

1. All guidelines that rated a score above ten on the Q-COMP priority section could be considered for use by Q-COMP.
2. Any guidelines that Q-COMP considers for use should be reviewed by subject area specialists before a final recommendation for use is made.
3. Q-COMP considers the above project as a work in process, and conducts periodic updates of the guideline registry.
4. As a priority, Q-COMP assesses the commercial guidelines produced by the American College of Occupational and Environmental medicine (ACOEM), and the Work Loss Data Institute (Corpus Christi – TX). Although these guidelines have limitations, they are reasonably comprehensive, compact and well-packaged, which would facilitate use by Q-COMP.

Conclusion

The study revealed a surprising dearth of well researched clinical practice guidelines relevant to the workers compensation sector. Although, there has been much emphasis placed on evidence based medicine in occupational health – particularly by health practitioners and insurers, it appears this has not been reflected in the development of relevant clinical practice guidelines.

In general, there were two major sources of reasonable quality guidelines – the American College of Occupational and Environmental medicine (ACOEM), and the Work Loss Data Institute (Corpus Christi – TX). These two sources provided comparable and acceptable guidelines for each of the musculoskeletal disorders studied. Both of these sources are commercially available, and provide a comprehensive collection of clinical guidelines that are relevant to health practitioners working in the workers' compensation system. As such, they provide some potential for exploitation by Q-COMP.

Other sources of guidelines were identified, but in the main, these were of lesser quality or relevance, and tended to come from quite disparate sources. Unsurprisingly, knee and back problems stimulated the greatest number and highest quality guidelines.