

Audit for Chiropractors, Osteopaths and Manipulation Physiotherapists (COMP)

Audit Instructions

Audit Form

Analysis

The Audit Criteria

Welcome to the Audit of Acute Low Back Pain for Chiropractors, Osteopaths and Manipulation Physiotherapists (COMP)

- This is an audit of the first contact events for patients in primary care with low back pain of duration up to six weeks.
- This toolkit was developed with the help of audit support staff, general practitioners, chiropractors, osteopaths and manipulation physiotherapists. It is designed to accompany the first revision of the RCGP Acute Back Pain Guidelines as issued in February, 1999. The Guideline's next review date is December, 2001. However, it is anticipated that most of this audit will remain relevant beyond this date.
- The Guideline, and this Audit, relate primarily to the first 6 weeks of an episode of back pain, regardless of when the patient presents. Therefore, the first presentation may not be close to the onset and the recommendations can become time-sensitive.
- Patients who have recurrences of previous back pain may be included, providing the present episode is of less than 6 weeks' duration.
- The audit is retrospective, over a period at your discretion. During testing, it was found that most practitioners would see 5 eligible patients within 6 weeks.

PRACTITIONER INSTRUCTIONS

To carry out one audit round, please take the following steps:

1. Familiarise yourself with the audit pack. Read the Guideline leaflet and keep it close at hand. Use the Information Section for longer term reference. This explains each of the 6 audit criteria, its clinical context and supporting evidence.
2. Record case information for the first patients you see between(date) and(date).

The patients should meet the following criteria for inclusion:

- First visit to you for an episode of low back pain.
 - Duration of episode 6 weeks or less
3. The data are now ready for processing.

*Audit Form
For COMP
Practitioners*

ACUTE LOW BACK PAIN AUDIT DATA COLLECTION FORM

COMP Practitioner - First Visit

FROM THE PATIENT RECORD, PLEASE COMPLETE THE FOLLOWING:

Duration of episode prior to this presentation

Up to 5 weeks

5-6 weeks

Audit Criterion 1: Assessment at first consultation (Diagnostic Triage)

Page references are to Information Section

Which of the following categories does your diagnosis/clinical impression fit into?

(see p1)

Simple Backache

Nerve Root Pain

Possible Serious Pathology

Not Done

Audit Criterion 2: Psychosocial Factors

(see p5)

Examples of potential risk factors for chronicity: (Belief that back pain is harmful or potentially severely disabling. Unjustified avoidance of activities. Tendency to low mood and withdrawal from social interactions. Expectation of passive treatment(s) rather than a belief that active participation will help.)

Were psychosocial factors considered? Yes

No

Not applicable (e.g. needs immediate referral)

If yes, were any psychosocial factors present likely to lead to chronicity?

(see p5-7)

Yes

No

Don't know

If yes, please specify.....

.....



Audit Criterion 3: Treatment

Was manipulative/manual treatment given?

Yes No

(See p11)

If yes.....for pain relief ?

Yes No

because patient not returning to normal activities? Yes No

Was reactivation/rehabilitation initiated?

Yes No

(See p13)

If yes.....because patient not on course to return to normal activities by 6 weeks?

Yes No

.....because patient not on course to return to work by 6 weeks?

Yes No

Audit Criterion 4: Avoidance of Bed Rest

(See p16)

Was bed rest prescribed by you?

Yes No

If yes, how many days?

1 2 3 4 5 6 7 8 9 10 or more
 (put a cross in the appropriate box)
time in days

Audit Criterion 5: Advice on Staying Active and at Work

(See p19)

Was the patient advised to stay as active as possible and continue normal daily activities?

Yes No Not applicable

Was the patient advised to increase gradually their physical activities over a few days or weeks?

Yes No Not applicable

Was the patient advised to stay at work?

Yes No Not applicable

Was sickness certification issued by you?

Yes No Not applicable



Audit Criterion 6: Further Investigations or Treatment

(See p22)

Were further investigations performed or referred for? Yes No

If yes, X-rays? Taken in house Referred for

Other investigations? Taken in house Referred for

Was the patient referred for a specialist opinion? Yes No

If yes, why?

(See p24)

Suspected serious pathology

Unresolving root pain

Progressive neurological deficit

Other reason (please specify)

.....
.....

Did you refer to ANOTHER practitioner for the treatment of unresolving simple backache? Yes No

If yes, why?

(See p11-13)

Manipulation for persisting pain and/or disability

Rehabilitation for threatened chronicity

Other treatment (Please specify)

.....
.....



*Analysis and
Presentation of
COMP
Practitioner
Audit Findings*

Recommendations for Processing the COMP Practitioner Audit Data

Data may now be transferred from the patient record to a Data Collection Form (example enclosed) by:

- The practitioner (recommended)
- Designated practice staff (if appropriate)

Data can now be entered into a file for analysis and presentation.

Analysis and Presentation of Audit Findings

Basic Analysis:

A Basic Analysis Tool for PC is available from Mrs. Gillian Sutherland.
e-mail: imrci.gsutherland@aecc.ac.uk

The file gives percentage findings for all variables.
Individual and group audit reports can also be generated from this file.

PLEASE SPECIFY WHICH EXCEL VERSION YOU REQUIRE (5.1 or 2000)

These files form a basis upon which the audit analyst can build. Alternatively, a more advanced version could be generated by the user.

A tutorial based on the general practice audit can also be obtained from the above e-mail address.

Advanced Analysis

In producing the test versions of the toolkit, analysis of a more complex nature, linked to graphical presentation, was developed using Excel. This is not present in this version. If it is decided to develop a more advanced version, it may be helpful to consider providing for the following.

- Findings derived from combining answers from more than one question.
- An automated process for generating individual results.
- Coping with varying numbers of returns from practitioners.

Macros were used for the advanced analysis and a 'logic' procedure was constructed through which all data had to be fed before results could be produced.

Audit Criteria for COMP Practitioners

INFORMATION SECTION: audit criteria, their clinical context, evidence statements, recommendations and selected references

Audit Criterion I: Assessment at the First Consultation (Diagnostic Triage)

The records will show that the patient has been triaged into one of:

- a) simple backache (non-specific low back pain)
- b) nerve root pain
- c) possible serious pathology

and has been referred only as and if appropriate

1.1 CLINICAL CONTEXT

The primary care clinician who has first contact with a patient with acute back pain is in a unique position to assist with its resolution before a chronic or recurrent pain state is allowed to develop. This applies not only to the few patients who need consultant referral for serious health problems but also especially to those with “simple” or non-specific backache, whose symptoms can be greatly influenced by early active management. As patients in each of these three categories have different requirements for care, initial triage is fundamental at the first visit, regardless of whether the patient has seen a previous practitioner.

1.2 SIMPLE BACKACHE

The criteria which the guideline lists for “simple backache” are:

- ◆ presentation at 20-55 years
- ◆ pain in lumbosacral area, buttocks and thighs
- ◆ “mechanical” pain
- ◆ patient well

Simple, or non-specific, backache has a much greater impact on disability in population terms than the other two categories. Therefore, the Guideline emphasises its effective management in the acute stage. For patients in whom serious pathology or root pain has been eliminated, it

Assessment at the First Consultation (Diagnostic Triage)

has often seemed sensible in the past to expect symptomatic recovery with bed rest. However, the evidence strongly suggests that this is ineffective and in some cases, harmful as a treatment. It promotes stiffness, muscle wasting and the adoption of a sick role. Controlling pain while advising patients to remain as active as possible is effective and this needs to be appreciated in order to be able to give support and motivation to patients. However, the patient's age, the duration and description of symptoms, their impact on activity and work, the clinical course and the response to previous therapy are also important in care.

1.3 NERVE ROOT PAIN (see also p24)

The criteria which the guideline lists for nerve root pain are:

- ◆ **unilateral leg pain worse than low back pain**
- ◆ **radiates to foot or toes**
- ◆ **numbness and paraesthesia in same distribution**
- ◆ **SLR reproduces leg pain**
- ◆ **localised neurological signs**

In acute back pain, the evidence supports the view that straight leg raising should be assessed and recorded in young adults with sciatica. In older patients with spinal stenosis, the SLR may be normal. In any case, examination for neurological deficits should emphasise ankle and knee reflexes, ankle and great toe dorsiflexion strength and distribution of sensory complaints. There is an important distinction in whether neurological changes are resolving or deteriorating. It may be prudent to treat resolving cases as for simple backache. However in progressive neurological deficit, manipulation should be avoided in favour of specialist referral in view of the rare, but serious, risk of neurological complication.

Assessment at the First Consultation (Diagnostic Triage)

1.4 POSSIBLE SERIOUS SPINAL PATHOLOGY (see also p25)

The “Red Flags” referred to in the Guideline can be identified in the initial clinical history. Such enquiries are especially important in patients over 55 (eg. in relation to osteoporosis), or under 20 (especially with a history of trauma). They may suggest either prompt investigation or specialist referral where there is:

- ◆ a history of prior cancer
- ◆ recent infection
- ◆ fever over 100F
- ◆ intravenous drug abuse
- ◆ prolonged steroid use
- ◆ low back pain worse with rest
- ◆ unexplained weight loss

There is evidence that plain X-rays in combination with a full blood count and erythrocyte sedimentation rate may be useful for ruling out tumour or infection. If there is thought to be a credible risk of serious pathology, the patient should be referred to the GP with a request for a specialist opinion with a view to being seen within 4 weeks.

1.5 CAUDA EQUINA SYNDROME (see also p25)

Cauda Equina is recognisable by:

- ◆ sphincter disturbance (i.e. difficulty with micturition, loss of anal tone or faecal incontinence)
- ◆ gait disturbance or widespread motor weakness (involving more than one nerve root), or progressive motor weakness in the legs
- ◆ saddle anaesthesia about the anus, perineum or genitals.

A cauda equina lesion requires emergency referral to a casualty department.

Assessment at the First Consultation (Diagnostic Triage)

1.6 SUPPORTING EVIDENCE

Diagnostic triage is fundamental. It is uniquely common to the main professions and is a basis for constructive interchange between them. Both the Agency for Health Care Policy and Research (AHCPR) and the Clinical Standards Advisory Group (CSAG) considered it essential to both clinical management and the organisation of services for back pain. Although there is general agreement on the importance and basic principles of differential diagnosis, there is little empirical evidence on triage in primary care.

The following statements are originally from AHCPR, subsequently modified by CSAG.

- ◆ Diagnostic triage forms the basis for decisions about referral, investigation and management.
- ◆ Diagnostic triage of acute low back problems should be based on the clinical history and examination. The categories are:
 - simple backache (non-specific low back pain)
 - nerve root pain
 - possible serious spinal pathology (tumour, infection, inflammatory disorders, cauda equina syndrome etc.)

The guideline recommends that you:

*Carry out
diagnostic
triage.*

SELECTED REFERENCES:

- Deyo RA, Rainville J, Kent DL (1992) What can the history and physical examination tell us about low back pain? *JAMA* **268**: 760-765 (cohort study).
- Van den Hoogen HMM, Koes BW, van Eijk JTHM, Bouter LM (1995) On the accuracy of history, physical examination and erythrocyte sedimentation rate in diagnosing low-back pain in general practice. A criteria-based review of the literature. *Spine* **20**: 318-327 (systematic review).
- Waddell G (1982) An approach to backache. *Brit J Hosp Med* **28**: 187-219 (cohort study).

Audit Criterion II: Psychosocial Factors

The records will show that an assessment has been made for psychosocial risk factors

2.1 CLINICAL CONTEXT

Psychosocial factors, as mentioned in the guideline, are labelled as 'yellow flags'. These are considered important because they are often associated with less successful outcomes and when present can be more important than physical symptoms and signs. Beliefs and behaviours on the part of the patient are significant in this.

In case records, a useful way to record the assessment for psychosocial factors is under the heading '**likelihood of chronicity**' (ie. likely, unlikely or impossible to tell, and why). This assessment is very much in the context of a first visit. It does not necessarily imply treatment at this stage, and the impression gained may be confirmed (or otherwise) at subsequent visits. Psychosocial factors should be recognised in order to try to ensure that they do not prejudice recovery.

2.2 PSYCHOLOGICAL FACTORS WHICH CARRY A RISK OF CHRONICITY

2.2.1 Attitudes and Beliefs About Back Pain

- Fear avoidance beliefs about activity and work (i.e. unjustified belief that certain, most or all forms of normal activity will lead to spinal damage).
- Unwillingness to take a measure of personal responsibility for the pain and for rehabilitation.

Psychosocial Factors

2.2.2 Psychological Distress and Depressive Symptoms

- **History of a markedly stressful event**

- **Excessive Stress Responses**

Exhibition of anxiety, anger, frustration.

Excessive fatigue, loss of interest and enjoyment, difficulty concentrating, irritability and impatience, withdrawal, muscle tension, diffuse aches and pains, difficulty sleeping, changed appetite, trembling, sweaty hands.

- **Depressive Symptoms**

Hopelessness, pessimism, sense of failure, loss of self-esteem, loss of joy in life, indecision, apathy, retarded, withdrawn, fatigue, guilt, shame, self accusation, agitation, hostility, irritability, crying spells, thoughts of suicide, early morning wakening, loss of libido, loss of appetite, constipation, slowing of thought, speech, reactions.

2.2.3 Excessive Adoption of the Role of a Sick Person (*unreasonable illness behaviour*)

- Overt pain behaviour (e.g. unjustified guarding, rubbing, grimacing, sighing).
- Other clinical observations: elaborate pain description, non-anatomic pain distribution (e.g. whole leg pain), unjustified amount of time lying down, use of walking aids or help with personal care.

Psychosocial Factors

2.3 SOCIAL FACTORS

2.3.1 Family

- The family's attitudes and beliefs about the problem (as for Psychological Factors: Attitudes and Beliefs, above).
- Other family members who reinforce the patient's disabled role.

2.3.2 Work

- Physical demands of job
- Job satisfaction
(low job satisfaction carries a risk of chronicity)
- Other health problems causing time off or job loss
(poor self-rated health, heavy smoking or alcohol consumption, work loss due to low back pain over previous 12 months all carry a risk of chronicity)
- Non-health problems causing time off or job loss
(adversarial medico-legal proceedings, marital, and financial problems all carry a risk of chronicity)

2.4 MANAGEMENT

There is evidence that initial management can have a major impact on patients' clinical progress and outcomes. For this reason, initial management of patients with acute "simple backache" should include:

- ◆ a thorough clinical history, including psychosocial factors and brief physical examination
- ◆ reassurance that there are no red flags of any serious pathology
- ◆ giving accurate information about its good prognosis for rapid recovery
- ◆ reassurance that light physical activity is not harmful

Psychosocial Factors

- ◆ practical advice on:
 - maintaining daily activities
 - return to work

2.5 ENCOURAGING POSITIVE ATTITUDES TOWARDS RECOVERY

For patients who have severe pain and activity limitation, the Guideline emphasises adequate pain control and reassurance. There is strong evidence that most severe back pain and activity limitation improves considerably in a few days, or at most a few weeks, even though milder symptoms may persist for longer. There is also evidence that providing appropriate information and advice can reduce anxiety and improve patient satisfaction with care.

There are additional reasons to encourage optimism in patients. Although it would be unusual for an initial attack of simple backache or milder root pain not to subside within a few days or weeks, there is also strong evidence that manipulation, if needed, produces improvement in such circumstances. Furthermore, at 6 weeks from onset, in the event of a patient's episode of simple (non-specific) backache not resolving there is evidence that reactivation exercise programmes and physical reconditioning can improve pain and functional levels.

For those patients who view, with dismay, their first acute episode of back pain as a sign of advancing age, there is moderate evidence that back pain does not normally increase with age. In fact, it becomes slightly less common after age 50-60.

Examples of positive messages for patients can be found in the Guideline leaflet.

Psychosocial Factors

2.6 WORK LOSS

The decision to stay off work should not be taken lightly as there is strong evidence that the longer someone is off work with back pain, the lower their chance of returning to work. It is common, in back pain patients whose problems have psychosocial elements, for these to be either work-related, or a combination of other health, family or social problems. A skilful case history, using open questions about life circumstances is necessary to identify psychosocial problems for the danger they pose to sustained recovery.

2.7 SUPPORTING EVIDENCE

There is **Strong Evidence** that:

- ◆ psychosocial factors play an important role in chronic low back pain and disability
- ◆ psychosocial factors influence the patient's response to treatment and rehabilitation

There is **Moderate Evidence** that:

- ◆ psychosocial factors are important at a much earlier stage than previously believed.

The guideline recommends that you:

Consider psychosocial "yellow flags".

Psychosocial Factors

SELECTED REFERENCES

- Burton AK, Tillotson KM, Main CJ, Hollis S (1995) Psychosocial predictors of outcome in acute and subchronic low back trouble. *Spine* **20**: 722-728 (cohort study).
- Main CJ, Waddell G (1998) Psychological distress. In: Waddell G *The Back Pain Revolution*. Churchill Livingstone 173-186.
- Deyo RA, Diehl AK (1988) Psychosocial predictors of disability in patients with low back pain. *J Rheumatol* **15**: 1557-1564 (review).
- Gatchel RJ, Polatin, PB, Mayer TG (1995) The domain role of psychosocial risk factors in the development of chronic low back disability. *Spine* **20**: 2702-2709 (cohort study).
- Keefe FJ, Block AR (1982) Development of an observation method for assessing pain behaviour in chronic low back pain patients. *Behavioral Therapy* **13**: 363-375.
- Klenerman L, Slade PD, Stanley IM, Pennie B, Reilly JP, Atchison LE, Troup JDG, Rose MJ (1995) The prediction of chronicity in patients with an acute attack of low back pain in a general practice setting. *Spine* **20**: 478-484 (cohort study).
- Waddell G (1992) Biopsychosocial analysis of low back pain. *Clinical Rheumatology* **6**: 523-557 (review)
- Waddell G, Turk DC (1992) Clinical assessment of low back pain. In: DC Turk and R Melzack (Eds) *Handbook of Pain Assessment*. New York: Guildford Press, Chapter 2:15-36 (review).
- Waddell G, Main CJ (1998) Illness behaviour. In: Waddell G *The Back Pain Revolution*. Churchill Livingstone 155-172.
- Kendall NAS, Linton SJ, Main CJ (1997) *Guide to Assessing Psychosocial Yellow Flags in Acute Low Back Pain: Risk Factors for Long-Term Disability and Work Loss*. Accident Rehabilitation and Compensation Insurance Corporation of New Zealand and the National Health Committee. Wellington, NZ (ISBN 0-478-10240-0).

Audit Criterion III: Treatment

The records will show that:

- (a) manipulation/manual treatment was used if the patient needed additional pain relief and/or was failing to return to normal activities
- (b) some form of reactivation/rehabilitation was initiated or referred for if the patient was not on course to return to ordinary activities and work by 6 weeks

3.1 MANIPULATION

3.1.1 Clinical Context

Manipulation, according to the evidence, confers greater pain relief and reduction in disability than the treatments to which it has been compared. Its value is in rapidly reducing pain and disability when these persist. Some acute patients, however, might attend within a few days of onset, despite improving, for reassurance that their problem is not serious and will resolve. The practitioner may not need to use manipulation but rather provide appropriate support, information and advice about prognosis and return to normal activity.

There is a shortage of studies with long-term follow-up which could reveal the duration of the effects of manipulation. Its use for those patients who are not returning to normal activities should, therefore, not be in isolation from the other components of the guideline.

Treatment

3.1.2 Safety

- ◆ Contrary to some previously held beliefs, the risks of manipulation as a treatment for back pain are very low, provided patients are selected and assessed properly and it is carried out by a trained therapist or practitioner. Manipulation under general anaesthesia is, however, associated with an increased risk of neurological damage and there is no evidence that it is effective.

3.2 SUPPORTING EVIDENCE

There are now 36 RCTs of manipulation for low back pain, though many have low methodological scores. Overall, 19 reported 'positive' results and a further 5 reported 'positive' results in one or more subgroups. There were also even more systematic reviews of these trials but the reviews sometimes reached conflicting conclusions. There is very little evidence available on manipulation in patients with nerve root pain.

There is **Strong Evidence** that:

- ◆ in acute and sub-acute back pain, manipulation provides better short-term improvement in pain and activity levels and higher patient satisfaction than the treatments to which it has been compared.

There is **Moderate Evidence** that:

- ◆ the risks of manipulation for low back pain are very low, provided patients are selected and assessed properly and a trained therapist or practitioner carries it out. Manipulation should not be used in patients with severe or progressive neurological deficit in view of the rare but serious risk of neurological complication.

Treatment

There is **Limited Evidence** that:

- ◆ it is possible to select which patients will respond or what kind of manipulation is most effective. The optimum timing for this intervention is unclear.

The guideline recommends that you:

Consider manipulative treatment for patients who need additional help with pain relief or who are failing to return to normal activities.

3.3 REHABILITATION

3.3.1 Clinical Context

The recommendation for back exercises in the Guideline refers to overall reconditioning programmes for patients whose simple backache is not resolving within the first 6 weeks. Reactivation or rehabilitation, in the form of aerobic exercises or other physical reconditioning to encourage integrated function in the activities of daily living are supported by the evidence in relation to chronic low back pain. The evidence would suggest that specific back exercises achieve limited clinical improvements in acute low back pain.

If, after following the Guideline's recommendations to this point, patients with simple backache have not returned to ordinary activities and work by 6 weeks, such reactivation/rehabilitation programmes as are available should be started or referred for.

Treatment

3.4 SUPPORTING EVIDENCE

There is **Strong Evidence** that:

- ◆ from the evidence available at present, it is doubtful that specific back exercises produce clinically significant improvement in acute low back pain, or that it is possible to select which patients will respond to which exercises

There is **Moderate Evidence** that:

- ◆ there is some evidence that exercise programmes and physical reconditioning can improve pain and functional levels in patients with chronic low back pain

There is **Limited Evidence** that:

- ◆ there are theoretical arguments for commencing exercise programmes and physical reconditioning at around 6 weeks

The guideline recommends that you:

Consider arranging reactivation/rehabilitation for patients who have not returned to ordinary activities and work by 6 weeks

SELECTED REFERENCES

- AHCPR (1994) *Management Guidelines for Acute Low Back Pain*. Agency for Health Care Policy and Research, US Department of Health and Human Services.
- Evans G, Richards S (1996) *Low Back Pain: An Evaluation of Therapeutic Interventions*. Bristol: Health Care Evaluation Unit, University of Bristol (mega-review).
- Faas A et al (1996) *Exercises: which ones are worth trying, for which patients and when?* *Spine* **21**: 2874-2879 (systematic review).
- Koes BW, Assendelft WJJ, Van der Heijden GJMG, Bouter LM (1996) *Spinal manipulation for low back pain: an updated review of randomised controlled trials*. *Spine* **21**: 2860-2873 (systematic review).

Treatment

- Lewis M (1995) Medline review from January 1992 - September 1995 of RCTs of exercise and manipulation for acute low back pain. (unpublished) - available on request from RCGP (systematic review).
- Shekelle P (1996) Spinal manipulation and mobilisation for low back pain. Paper presented to the International Forum for Primary Care Research on Low Back Pain, Seattle, October 1995 (review).
- Haldeman S, Rubenstein SM (1992) Cauda equina syndrome in patients undergoing manipulation of the lumbar spine. *Spine* **17**: 1469-1473 (review).
- van Tulder MW, Koes BW, Bouter LM (1996) Conservative treatment of acute low back pain: a systematic mega-review of 81 randomised controlled trials of 11 interventions In: van Tulder MW, Koes BW, Bouter LM (eds) (1996) *Low Back Pain in Primary Care: Effectiveness of Diagnostic and Therapeutic Interventions* Amsterdam: Institute for Research in Extramural Medicine.

Audit Criterion IV: Avoidance of Bed Rest

The records will show that bed rest was not prescribed as a treatment.

4.1 CLINICAL CONTEXT

There is evidence that bed rest is not effective for simple backache or nerve root pain. It is recognised, however, that patients may take themselves to bed because of pain, but this should not be considered a treatment. This highlights the importance of the initial diagnostic triage, the evaluation of psychosocial risk factors and the need to ensure that progress prior to presentation is known. There is moderate evidence to show that adding traction to bed rest is not effective. It adds the complications of immobilisation to the deleterious effects of bed rest, in particular joint stiffness, muscle wasting, loss of bone mineral, pressure sores and thrombo-embolism.

4.2 SUPPORTING EVIDENCE

At the time of publication of the RCGP guidelines, there were nine RCTs of bed rest for acute or recurrent LBP with or without referred leg pain. These showed consistently that bed rest is not effective. The only trial showing positive results for bed rest was very atypical in that it used US army recruits and the results cannot be applied in UK primary care (Wiesel et al 1980). Despite widespread practice, there is little evidence on the efficacy of bed rest for disc prolapse or nerve root pain. Up until the Guideline's revision, the only RCT in this area was a very early trial of poor methodological quality, which showed that bed rest is not as effective as epidural anaesthesia (Coomes 1961). Since then,

Avoidance of Bed Rest

however, a further high quality RCT has shown that bed rest for sciatica is no more effective than “watchful waiting”. There is no evidence that bed rest in hospital is any more effective.

There is **Strong Evidence** that:

- ◆ prolonged bed rest may lead to debilitation, chronic disability and increasing difficulty in rehabilitation

There is **Moderate Evidence** that:

- ◆ for acute or recurrent low back pain with or without referred leg pain, bed rest for 2-7 days is worse than placebo/ordinary activity. It is not as effective as the alternative treatments to which it has been compared for relief of pain, rate of recovery, return to daily activities and days lost from work.

The guideline recommends that you:

Do not prescribe or use bed rest as a treatment for simple back pain

SELECTED REFERENCES

- Coomes EN (1961) A comparison between epidural anaesthesia and bed rest in sciatica. *Brit Med J* **264**: 20-24 (RCT).
- Deyo RA (1986) Patient satisfaction with medical care for low back pain. *Spine* **11**: 28-30 (RCT).
- Evans C, Gilbert JR, Taylor W, Hildebrand A (1987) A randomized controlled trial of flexion exercises, education and bedrest for patients with acute low back pain. *Physiotherapy Canada* **39**: 98-101 (RCT).
- Gilbert JR, Taylor DW, Hildebrand A, Evans C (1985) Clinical trial of common treatments for low back pain in family practice. *Brit Med J* **291**: 791-794 (RCT).
- Malmivaara A, Hakkinen U, Aro Heinrichs ML, Koskenneimi L, Lappi S, Paloheimo R, Servo C, Vaaranen V, Hernberg S (1995) The treatment of acute low back pain - bed rest, exercises and ordinary activity? *N Eng J Med* **332**: 351-355 (RCT).
- Postachinni F, Facchine M, Palieri P (1988) Efficacy of various forms of conservative treatment in low back pain: a comparative study. *Neuro-orthopaedics* **6**: 28-35 (RCT).
- Rupert SL, Wagnon R, Thompson P, Exxeldin T (1985) Chiropractic adjustments: results of a controlled trial in Egypt. *ICA Internat Rev Chiropractic*: 58-60 (RCT).
- Szpalski M, Hayez JP (1992) How many days of bedrest for acute low back pain? Objective assessment of trunk function. *Eur Spine J* **1**: 29-31 (RCT).

Avoidance of Bed Rest

- *Vroomen CAJ, de Krom MCTFM, Wilmink JT, Kester ADM, Knottnerus JA. (1999) Lack of effectiveness of bed rest for sciatica. New Eng J Med 340:418-423 (RCT)*
- *Wiesel SW, Cuckler JM, Deluca F, Jones F, Zeide MS, Rothman RH (1980) Acute low back pain. an objective analysis of conservative therapy. Spine 5: 324-330 (RCT).*
- *Wilkinson MJB (1995) Does 48 hours bedrest influence the outcome of acute low back pain? Brit J Gen Prac 45: 481-484 (RCT).*

Audit Criterion V: Advice on Staying Active

The records will show that the patient was advised to stay as active as possible, to continue normal daily activities and to gradually increase their physical activities over a few days or weeks.

5.1 CLINICAL CONTEXT

The evidence in favour of advising patients to stay as active as possible is strong and unequivocal. Its benefit ranges from greater satisfaction with care to less pain later on, less reported sickness, less subsequent healthcare utilisation, less work loss, lower disability and costs and greater mobility.

Patients who are motivated to seek treatment and advice may do so because they do not want to become inactive and are looking for advice about how to avoid this. The key term in the Guideline is perhaps “ordinary activity”, meaning that level of activity necessary for self-care and routine work. In this respect, “hurt” does not equate to “harm”, although the recommendation does not extend to “working off” the problem by increased exertion above usual activity levels. Instead, there is a preference for a graded return to normal activity, especially in relation to the prevention of chronicity.

In severe cases of “simple backache”, graded reactivation may start from a point of very little activity, but should increase as soon as possible in the interests of avoiding a chronic state. Like the previous recommendation to avoid bed rest, the promotion of normal activity is closely linked to triage, psychosocial assessment and monitoring over the initial 6 weeks.

Advice on Staying Active

5.2 SUPPORTING EVIDENCE

At the time of publication of the RCGP guidelines, there were 8 RCTs on advice to stay active. Their findings were consistent.

There is **Strong Evidence** that:

- ◆ advice to continue ordinary activity can give equivalent or faster symptomatic recovery from the acute attack and lead to less chronic disability and less time off work than 'traditional' medical treatment with analgesics as required, advice to rest and 'let pain be your guide' for return to normal activity
- ◆ graded reactivation over a short period of days or a few weeks, combined with behavioural management of pain, makes little difference to the rate of initial recovery of pain and disability, but leads to less chronic disability and work loss

There is **Limited Evidence** that:

- ◆ advice to return to normal work within a planned short time may lead to shorter periods of work loss and less time off work

The guideline recommends that you:

Advise patients to stay as active as possible and to continue normal daily activities.

Advise patients to increase their physical activities progressively over a few days or weeks.

If a patient is working, then advice to stay at work or return to work as soon as possible is probably beneficial.

Advice on Staying Active

SELECTED REFERENCES

- Fordyce WE, Brockway JA, Bergman JA, Spengler D (1986) Acute back pain: a control group comparison of behavioural vs traditional management methods. *J Behav Med* **9**: 127-140 (RCT).
- Indahl A, Velund L, Reikeraas (1995) Good prognosis for low back pain when left untampered. A randomised clinical trial. *Spine* **20**: 473-477 (RCT).
- Lindequist S, Lundberg B, Wilmark R, Bergsted B, Loof G, Ottermark AC (1984) Information pain. *Scand J Rehab Med* **16**: 113-116 (RCT).
- Lindstrom I, Ohlund Eek C et al (1992) The effect of graded activity on patients with subacute low back pain: a randomised prospective clinical study with an operant conditioning behavioural approach. *Phys Ther* **72**: 279-291 (RCT).
- Lindstrom I, Ohlund Eek C, Wallin L, Peterson LE, Nachemson A (1992) Mobility, strength and fitness after a graded activity program for patients with subacute low back pain. *Spine* **17**: 641-652 (RCT).
- Linton JJ, Hellsing AL, Andersson D (1993) A controlled study of the effects of an early intervention on acute musculoskeletal pain problems. *Pain* **54**: 353-359 (RCT).
- Malmivaara A, Hakkinen U, Aro Heinrichs ML, Koskenneimi L, Lappi S, Paloheimo R, Servo C, Vaaranen V, Hernberg S (1995) The treatment of acute low back pain - bed rest, exercises or ordinary activity? *N Eng J Med* **332**: 351-355 (RCT).
- Phillips HC, Grant L, Berkowitz J (1991) The prevention of chronic pain and disability: a preliminary investigation. *Behav Res Ther* **29**: 443-450 (RCT).
- Wilkinson MJB (1995) Does 48 hours bedrest influence the outcome of acute low back pain? *Brit J Gen Pract* **45**: 481-484 (RCT).

Audit Criterion VI: Referral For/Use of Other Investigations or Treatment

The records will show that the patient was referred for further investigations or treatment if there was a suggestion of serious pathology, cauda equina syndrome, or an unresolving neurological condition

6.1 X-RAYS

6.1.1 Clinical Context

X-rays are mainly recommended, together with lab tests, as part of the process for ruling out tumour, infection or occult fracture suspected from “red flags” (see Guideline). In general, a bone scan is recommended to corroborate these in the event of uncertain results, but is contraindicated during pregnancy. In the absence of “red flags”, plain X-rays are not recommended for the routine evaluation of patients with acute low back pain.

6.2 SUPPORTING EVIDENCE

The recommendations on X-rays from the AHCPH guidelines were adopted in their original form and no further review of evidence was undertaken. These complement the second, third and fourth editions of the Royal College of Radiologists’ Guidelines.

Referral For/Use of Other Investigations or Treatment

The guideline recommends that:

plain x-rays are not recommended for routine examination of patients with acute low back problems within the first month of symptoms unless a red flag is noted on clinical examination.

plain x-rays of the lumbar spine are recommended for ruling out fractures in patients with acute back pain problems when any of the following red flags are present: recent significant trauma (patient over age 50); history of prolonged steroid use; osteoporosis; patient over age 70.

in the presence of red flags, especially for tumour or infection, the use of other imaging techniques such as bone scan, CT or MRI may be clinically indicated even if plain x-rays are negative.

plain x-rays in combination with FBC and ESR* may be useful for ruling out tumour or infection in patients with acute low back problems when any of the following red flags are present: prior cancer or recent infection; fever over 100F; IV drug abuse; prolonged steroid use; low back pain worse with rest; unexplained weight loss.*

a bone scan is recommended to evaluate acute low back problems when spinal tumour, infection or occult fracture is suspected from red flags on medical history, physical examination, corroborative lab test or plain x-ray findings. Bone scans are contraindicated during pregnancy.

the routine use of oblique views on plain lumbar x-rays is not recommended for adults in the light of the increased radiation exposure.

**FBC = full blood count *ESR = erythrocyte sedimentation rate*

Referral for/Use of Other Investigations or Treatment

SELECTED REFERENCES

- *Royal College of Radiologists (1993) Making the best use of a department of radiology: guidelines for doctors. Second Edition, RCR: London.*
- *Royal College of Radiologists (1995) Making the best use of a department of radiology: guidelines for doctors. Third Edition, RCR: London*
- *Royal College of Radiologists (1998) Making the best use of a department of radiology: guidelines for doctors. Fourth Edition, RCR: London*

6.3 REFERRAL FOR SPECIALIST OPINION OR TREATMENT

6.3.1 Clinical Context

The decision to refer for specialist opinion or treatment rests on the initial assessment. This should take account of psychological and socio-economic problems in the individual's life since these non-physical factors can complicate both assessment and treatment. The results of this assessment are also tempered by the patient's age, the duration and description of symptoms, the impact of symptoms on activity and work and the response to previous therapy.

The Guideline refers to the AHCPR evidence review to indicate priorities for this in relation to nerve root pain, possible serious spinal pathology and cauda equina syndrome as follows:

6.3.2 Nerve Root Pain (*see also p2*)

Specialist referral for root pain is not generally required provided this is resolving within 4 weeks. Manipulation is not excluded as a treatment for this provided progressive neurological deficit is ruled out. Non-responding or deteriorating cases should be referred through general practice for orthopaedic or neurosurgical opinion.

Referral for/Use of Other Investigations or Treatment

6.3.3 Possible Serious Spinal Pathology (see also p3)

Referral for specialist attention within 4 weeks is recommended if the appearance of one or more 'Red Flags' leads to credible evidence of serious pathology. The 'Red Flags' themselves are not the criteria for referral, but should lead either to the prompt exclusion of pathology or to referral.

6.3.4 Cauda Equina Syndrome (see also p3)

Cauda equina syndrome is a medical emergency requiring immediate referral, if necessary through a hospital casualty department.

6.4 REFERRAL FOR / USE OF OTHER TREATMENTS

6.4.1 Medication

The only other treatment to which the short form of the RCGP Guideline makes specific reference is drugs, which would be more likely to be used as a first choice by GPs. For completeness, a summary is included here of the clinical context for the use of these drugs, including those listed as prescription-only. This may serve as a background against which to evaluate self-treatment with over-the-counter medications, GP prescribing or specific recommendations by the COMP practitioner if appropriate.

The Guideline focuses on the use of medication for pain control while the patient maintains whatever level of normal activities is appropriate in the circumstances. Although in rare and extreme circumstances, aggressive and/or invasive types of pain control

Referral for/Use of Other Investigations or Treatment

may seem inevitable, it has been suggested that the use of narcotics for more than 2 weeks is not appropriate. Indeed, there is evidence, albeit weak, that pain of such severity requires further investigation and assistance with management. Strong opioids (eg. morphine, pethidine and pentozocine) appear to be no more effective in relieving low back symptoms than safer analgesics such as paracetamol, with NSAID as a second line.

Clinicians find that paracetamol-weak opioids, such as codyramol or coproxamol may be effective alternatives when paracetamol or NSAIDs do not give adequate pain control. The advice to consider adding a short course of muscle relaxants (eg. diazepam or baclofen) if necessary is based on strong evidence for their effectiveness. However, these also have significant side effects. These include drowsiness and potential physical dependence, even after courses as short as one week.

NSAIDs can have serious adverse effects, particularly in high doses in the elderly. There is strong evidence for this. However, ibuprofen, followed by diclofenac has the lowest risk of gastrointestinal complications.

Antidepressant medications have been widely used for the treatment of chronic back pain, though there is little evidence for their effectiveness. There is no evidence available on the use of antidepressants in acute low back pain.

The Guideline does not recommend considering injections in acute back pain. This is partially because epidural ligamentous (sclerosant) and facet injections both have rare, but serious complications and also because they lack evidence of efficacy for acute back problems. There is moderate evidence, however, that epidural steroid injections, with or without local anaesthetic, appear

Referral for/Use of Other Investigations or Treatment

to produce better short term relief of acute back pain with sciatica, than the treatments with which they have been compared.

6.5 SUPPORTING EVIDENCE

There is **Strong Evidence** that:

- ◆ NSAIDs effectively reduce simple backache. Ibuprofen and diclofenac have lower risks of GI complication
- ◆ muscle relaxants effectively reduce acute back pain

There is **Moderate Evidence** that:

- ◆ paracetamol effectively reduces acute low back pain
- ◆ paracetamol-weak opioid compounds are effective when NSAIDs or paracetamol alone are inadequate

The guideline recommends that you:

use analgesics at regular intervals, not “as required”.

start with paracetamol. If inadequate, substitute NSAIDS (eg. ibuprofen). GPs may go on to paracetamol-weak opioid compounds (eg. codydramol or coproxamol).

narcotics should be avoided if possible by GPs (eg. dihydrocodeine, buprenorphine, morphine, pethidine, pentazocine).

finally, a GP might consider adding a short course of muscle relaxant (eg. diazepam or baclofen).

Referral for/Use of Other Investigations or Treatment

SELECTED REFERENCES

- *de Craen AJM, Di Giulio G, Lampe-Schoenmaeckers Ajem, Kessels AGH, Kleijnen (1996) Analgesic efficacy and safety of paracetamol-codeine combinations versus paracetamol alone: a systematic review. Br Med J 313: 321-325.*
- *Henry D, Lim LLY, Rodriguez LAG, Gutthann SP, Carson JL et al (1996) Variability in risk of gastrointestinal complications with individual non-steroidal anti-inflammatory drugs: results of a collaborative meta-analysis. Brit Med J 312: 1563-1566 (systematic review).*
- *Koes BW, Scholten RJP M, Mens JMA, Bouter LM (1996) Efficacy of NSAIDs for low back pain: a systematic review of randomised controlled trials of 11 interventions. In: van Tulder MW, Koes BW, Bouter LM (eds) (1996) Low Back Pain in Primary Care: Effectiveness of Diagnostic and Therapeutic Interventions Amsterdam: Institute for Research in Extramural Medicine: 171-190 (systematic review).*
- *van Tulder MW, Koes BW, Bouter LM (eds) (1996) Conservative treatment of acute low back pain: a systematic mega-review of 81 randomised controlled trials of 11 interventions. In: van Tulder MW, Koes BW, Bouter LM (eds) (1996) Low Back Pain in Primary Care: Effectiveness of Diagnostic and Therapeutic Interventions Amsterdam: Institute for Research in Extramural Medicine.*

6.6 OTHER TREATMENTS

6.6.1 Clinical Context

There are many other therapies available for acute low back pain. There is not yet a substantial body of evidence relating to most of them. Some treatments which can be harmful (eg bed rest) or carry a potential risk (eg steroid injections), have already been mentioned in other sections. However, the treatments for acute low back pain for which some evidence is available are reviewed below. These are grouped under the following headings:

Limited or Inconclusive Evidence in Favour:

- ◆ **transcutaneous electrical nerve stimulation (TENS)**
- ◆ **shoe insoles/shoe lifts**
- ◆ **trigger point and ligamentous injections**
- ◆ **back schools**

Referral for/Use of Other Investigations or Treatment

No Evidence in Favour:

- ◆ acupuncture
- ◆ lumbar corsets and supports
- ◆ biofeedback

Evidence of No Effect:

- ◆ traction
- ◆ physical Agents and Modalities
(ice, heat, short wave diathermy, massage, ultrasound)

Evidence Against *(ie no evidence in favour, they are associated with potential hazards or complications and there are simpler or safer alternatives):*

- ◆ narcotics beyond 2 weeks
- ◆ benzodiazepines (diazepam) beyond 2 weeks
- ◆ colchicine
- ◆ systemic Steroids
- ◆ plaster Jacket