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Guidelines For The Management of Low Back Pain

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"Pain is not just a symptom demanding our Compassion, it can be an aggressive disease that damages the nervous system".

GARY BENNETT

Low back pain is a twentieth-century health care enigma. Now we are facing an epidemic of chronic disability due to simple back "strains and sprains".

Even with advances in knowledge and greater resources the problem is getting worse.

- Most adults have had at least one episode of back pain in their life time.
- LBP is second only to common cold as a cause for absence from work in people under age 55.
- It is second only to headache as a cause of chronic pain.
- It constitutes 10-15% of all sickness absences, from work.
- The most frequent cause of limited activity below 45 years of age.
- Symptoms do not always carrespond with severity of the disorder and relatively minor self-limiting injuries can produce incapacitating symptoms.

PATHOPHYSIOLOGY

LBP usually involves changes in the musculo skeletal structures of lumbosacral area.

Although there are many causes, everal may have the same mechanism for producing pain, for instance, failed back syndrome, herniated disk, and pain related to cancer, cell infilteration of the nerve roots have, to a variable extent the common pathologic denominater of inflammation of the nerve roots. This can be due to mechanical compression of the nerve root by disk material, irritation there of by phosphslipase A2 leaked from the nucleus pulposus, abnormal contact of the nerve root with bone related to altered anatomy or poor posture, or swelling induced by the invasion of tumour cells. Scared, swollen, inflamed nerves exhibit altered electrophysiologic function, lowered threshold, sensitization to mechanical stimulation, enhanced pain transmission or altered vascular permeability.

THE NEED OF MANAGEMENT GUIDELINES

Back pain has affected the human beings through out the recorded history and there is no evidence that the frequency or nature of back pain is any different today than it was in the past. The traditional medical treatment has failed to halt this epidemic and may even have contributed to it. There is a clear need to reconsider the approach to the managemnt of low back pain.

These guidelines are based on the best scientific evidence available in the field.

THE IMPORTANCE OF INITIAL MANAGEMENT

The importance of primary management with the in first six weeks is very important. Once chronic back pain and disability are established, the treatment is more difficult and has reduced chances of success.

Early managemnet sets the whole strategy and largely determines the final out come.

Low Back pain has a good natural recovery rate. There is a 90% probability that an acute attack will settle, at least sufficient enough to allow return to work.

MAIN AIMS OF PRIMARY MANAGEMENT

Primary management of low back pain has two main aims.

1. Symptomatic control of pain
2. Prevention of disability

Pain and disability are not the same and should be clearly distinguished both conceptually and in clinical terms. However, control of pain and overcoming disability should go together. It is often not possible to provide complete pain relief before starting rehabilitation. Lasting pain relief can not be achieved unless chronic disability is prevented. The best method

of achieving lasting pain relief is by encouraging the patient to return to normal activity even with some degree of persistent or recurrent pain.

The main responsibility for preventing chronic low back pain and disability lies with the doctor who is caring for the patient at this early stage.

ACTIVE REHABILITATION IS THE KEY

If the attack of LBP has not settled within six weeks, it is at risk of becoming chronic. The longer anyone is off with low back pain, the lower his chances of ever returning to work. Many physical, psychological and social factors may be responsible for duration of time off work, but whatever the cause, consequences are disastrous.

DIAGNOSTIC TRIAGE

A careful history and physical examination is essential in establishing rapport with the patient and offering reassurance; and underlining the best management strategy.

The first step in diagnosis is to determine either muscleoskeletal problem or non spinal pathology (such as renal abdominal, or gynecological)

The musculoskeletal assessment should then exclude serious spinal pathology, should distinguish a nerve root problem from simple back pain. The diagnostic triage forms the basis for decision about refferal, investigations and further management.

The main diagnostic criteria for simple back pain, nerve root pain and serious spinal pathology are;

1. SIMPLE BACK PAIN

- Onset generally between 20-55 years of age.
- Originates from lumbosacral region, radiates to buttocks and thigns.
- Pain "mechanical in nature"
  - varies with physical activity
  - varies with time
- Prognosis: good
- 90% recover from acute attack

2. NERVE ROOT PAIN

- Unilateral leg pain>back pain.
- Pain generally radiates to foot or toes
- Numbness and paraesthesiae may be present in the distribution of involved nerve root.
- Nerve irritation signs are present.
- SLR
- Motor, sensory or reflex changes may be present.
- Prognosis: reasonable

  50% recover from acute attack within six months.

3. SERIOUS SPINAL PATHOLOGY

- H/o violent trauma, RTA, fall from height etc.
- Persistant non progressive pain.
- H/o carcinoma.
- H/o systemic steroid intake.
- H/o weight loss
- Wide spread neurological problems
- Structural deformity.
- Difficulty in micturation or H/o faecal incontinence
- There may be evidence of other joints involvement, iritis, skin rash, colitis etc. Initial diagnostic triage will identify the smaller number of patients requiring emergency or urgent refferal. Guidelines for emergency and urgent refferal are as follows:

EMERGENCY REFERRAL

Patients with acute spinal cord damage/acute cauda equina syndrome/wide spread neurological disorders.

- Referred to a specialist with experience in spinal surgery.

URGENT REFERRAL

(a)	Diagnosis	Possible serious spinal pathology
	Referral	Orthopedic surgeon
(b)	Diagnosis	Nerve root pain
	Referral	Pain relief clinic for management of pain

DIAGNOSTIC IMAGING

No need for Routine X-rays

Standard x-ray films for lumbo sacral spinel involve about 120 times the dose of radiation that for a

chest x-ray. X-ray are not usually required in the initial management of acute back pain. It is usually caused by conditions which cannot be diagnosed by plain x-rays.

When to Order X-ray

Lumbo sacral x-ray are required, if there is a question of possible serious spinal pathology for simple back pain. X-ray may be ordered if symptoms and disability do not improve after six weeks.

What x-rays can not show?

It is important to note that serious spinal pathology can exist despite the normal x-rays. False negative x-rays are common in early stages of both tumor and infection.

X-rays should not delay urgent referral

If the patient is being reffered urgently for specialist consultation, it may be better to let the specialist arrange the necessary x-rays.

EARLY MANAGEMENT STRATEGY IN ACUTE LOW BACK PAIN

- Prescribe simple analgesics or NSAID's. Avoid narcotics if possible and never for more than two weeks.
- Arrange physical therapy if symptoms last for more than a few days.
- Advise rest only if essential i.e, 1-3 days maximum.
- Encourage early activity as:
  - activity is not harmful
  - Reduces pain
  - Physical fitness is beneficial.
- Practice psychosocial management.
  - Promote positive attitude to activity & work.
  - Relieve distress and depression
- Avoid absence from work.

BIOPSYCHOSOCIAL ASSESSMENT AT SIX WEEKS

If managed properly most patients with simple LBP should have recovered sufficiently to return to work before six weeks. Those patient who have not recovered sufficient enough to join work by six weeks, should be re-assessed more thoroughly to find out the causes.

SYMPTOMATIC MEASURES TO BE AVOIDED IN PATIENTS WITH LBP

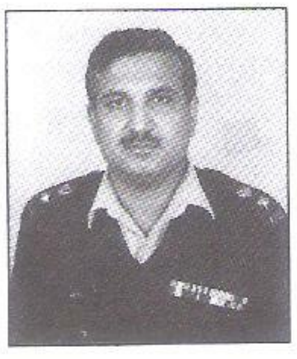
Do not use:-

1. Bed rest with traction.
2. Narcotics for more than two weeks.
3. Benzodiazepines for more than two weeks.
4. Systemic steroids.
5. Manipulation under GA.
6. Plaster Jackets.

PREVENTING BACK PAIN

There are a number of suggestions that will help to prevent back pain.

1. Always lift properly. Bend down by bending the knees and then lift by straightening the legs. Do not bend down from hips
2. Sit in a chair which supports the spine and do not sag.
3. Sleep on a firm but comfortable mattress.
4. When driving have a car seat that supports the back and neck
5. Do not lift and twist at the same time.



Lt Col Amjad Iqbal was born on Sept 29, 1957. He passed his MBBS in 1981 from Quaid-i-Azam University. He attended grading course in anaesthesia at AFM College, Rawalpindi from 1984 to 1985. He qualified MCPS in 1985, and FCPS in 1993. He got certificate in pain relief from Pain Research Institute Liverpool (UK) in 1995 while on job training. Presently he is working in CMH Peshawar as Head of Anaesthesia Department. He has special interest in pain relief and has pioneered in establishing a pain clinic at CMH Peshawar.