The Prevalence Of Low Back Pain And Its Effects On Society
The LBP Burden

• LBP is the most widely experienced health complaint in the world and the leading cause of disability

• What percentage of the population will have an episode of back pain at some point in their lifetime?
  • 10%
  • 25%
  • 50%
  • 80%

• However, many people find their capabilities being restricted, enduring pain on and off and not consulting a GP

• Severe pain can render someone permanently disabled
LBP Statistics

- **80%** of the population, or **4 out of 5** people, will have an episode of back pain at some point in their lifetime (Norris 2004)
- Between 4-33% of the population will be suffering from back pain at any one time (WHO 2012)
- LBP increases with advancing age, peaking in adults aged 35-55 years
- 90% of acute back pain resolves within six weeks - most common cause of disability among young adults (WHO 2012)
- Approximately 5-15% of those with back pain progress to permanent disability, accounting for 90% of the total expenditure for the condition (Norris 2008)
- 44-78% of people have a relapse of symptoms (Chartered Society Of Physiotherapists 2004)
- What percentage of the population who suffer an episode of back pain will return to work within six weeks?
  - 10%
  - 25%
  - 50%
  - 80%
LBP Statistics

• Only **50%** of people actually return to work within six weeks (Chronic Pain Policy Coalition 2008)

• 60% of sufferers will experience a second episode within one year of the onset of the original condition (CPPC 2008)

• 90% of patients in primary care stop consulting health care practitioners within three months (BMJ 1998)

• Most will still be suffering low back pain and related disability one year after consultation! (BMJ 1998)
Economic Costs

- £141 million is spent per year via GP consultations
- £512 million is spent on hospital care and an estimated £150.6 million on physiotherapy
- Approximately 20% of people with low back pain do actually consult their GP (NICE 2012)
- 2nd biggest reason for sick leave in the UK - between 4.1-5 million days (Backcare.org 2009)
- 50% chance of a person ever returning after 6 months (CPPC 2008)
- Costs £434 per year per employee (Confederation British Industry 2001)
- Indirect costs from chronic low back pain-related disability, such as medical bills and recruitment/training of replacement staff, can be 1-2 times the direct costs. Costs do not just relate to absenteeism but also to decreased performance while at work
Risk Factors

- Increasing age
- Poor torso muscle endurance
- Sedentary lifestyle and poor physical activity levels
- Gender
- The number of children
- The time of day
- Being overweight
- Smoking
Health & Work Risk Factors

- Previous episodes of low back pain
- A major scoliosis causing a lateral ‘C’ or ‘S’ bend in the spine
- Being pregnant
- History of back pain
- Long-term use of medication that can weaken the bones
- Rapid ballistic load
- Poor posture
- Static work postures – specifically prolonged flexion and a twisted or laterally rotated trunk posture
- Prolonged sitting and prolonged standing
- Driving for long periods without taking a break
- Heavy physical work – excessive, repetitive spinal loading
- Awkward movements – bending, twisting, over-stretching, standing or bending down for long periods
- Repeated full lumbar flexion
Psychological Risk Factors

• Stress

• Anxiety

• Depression

• Cognitive dysfunction

• Pain behaviour - observable actions other than descriptive speech arising out of the experience of pain

• Job dissatisfaction

• Mental stress at work
Exercise Related Risks

- Increased spine mobility
- Heavy sporting activities
- Overuse of the muscles, usually due to sport or repetitive movements
- Poor technique
- Muscle imbalance
Diagnosis

- A suitably qualified HCP, an occupational physician or GP, conducts a thorough assessment

**Subjective assessment – full medical history**
- Full medical history – past and present
- Current medication
- Lifestyle habits and social circumstances

**Objective assessment**
- Establishes physical, measurable and diagnostic findings
- Posture, ability to sit, stand and walk as well as the range of movement in their back
- Range of spinal movement, neurological deficit including sensory, motor or reflex impairment and distribution of paraesthesias – abnormal sensations, typically tingling or prickling – caused by pressure on or damage to a peripheral nerve
Diagnosis

Diagnostic triage
• The three categories are:

Non-specific back pain: (also known as simple or mechanical back pain). No need for specialist referral
• Patient aged 20–55 years
• Pain restricted to lumbosacral region, buttocks or thighs
• Pain is mechanical – that is, changes with and can be relieved by movement
• Patient is otherwise in good health

Nerve root pain: (suggestive of nerve root compression)
• Specialist referral not generally required within first four weeks if the pain is resolving
• Unilateral - pain radiates into foot or toes
• Numbness and paraesthesia (altered feeling) in the same area as the pain
• Localised neurological signs such as reduced tendon reflex and positive nerve tests, which would indicate nerve involvement
Diagnosis

Specific back pain: (a red flag for possible serious spinal pathology). Immediate referral to specialist.

Red flags include:

- **Mode of onset**
  - Road traffic accident
  - Major trauma
  - Severe symptoms with sudden onset for example bilateral leg weakness or unremitting pain
  - Suspected fracture or bony abnormality

- **Non-mechanical pain** - pain that does not improve with movement.

- **History and cauda equina symptoms** - Over 50, under 20, history of carcinoma, sudden unexplained weight loss, frequent urinary tract infections, drug abuse or HIV, bladder disturbance, increased frequency or urinary retention, bowel or bladder incontinence, saddle anaesthesia, bilateral weakness or paraesthesia in the lower limbs.
Referral Pathways

CCG Services

- Planned hospital care
- Rehabilitative care
- Urgent and emergency care (including out-of-hours)
- Most community health services
- Mental health and learning disability services

- Regulated by National Institute for Health and Care Excellence (NICE) guidelines and the Care Quality Commission's (CQC) data about service providers

- Both NHS England and CCGs have a duty to involve their patients, carers and the public in decisions about the services they commission
Referral Procedure

- Selection for referral by a healthcare professional e.g. GP, Physio, Specialist Nurse
- The agreement of the patient to be referred
- Acceptance of the client by the referral scheme
- Assessment of the client by the exercise professional
- Planning and delivery of the programme
- Client monitoring and data collection
- Exit strategy for the client to return to the community
- Reporting to the referring healthcare professional
Treatment Approaches

• 7% of physicians’ time is spent treating back pain but with very limited success.
• Diagnosis is a major factor due to the broad range of different sources of pain

Passive or Active?

• Although rest is still sometimes required, recent evidence has challenged the traditional approach. It shows that prolonged bed rest can be harmful and that back pain can be considered in part as a functional change that requires functional management

• A specific exercise treatment approach appears more effective than other commonly prescribed conservative treatment

• A patient’s role changes from being a passive recipient of treatment to being an active participant in reducing their pain and restoring function – self management!
Considerations And Management

- Aims of management – ADLs, QOL, functional capacity, recurrence of pain
- A client-centred approach – informed care decisions, tailored treatment, communication
- Diagnosis of back pain – exclude serious spinal pathology/nerve root pain
- Psychosocial factors – yellow flags
- Bed rest – discouraged, limited to 2 days maximum
- Physical activity and exercise – varied ADL based movement
- Manual therapy – additional assistance in returning to ‘normal’ functions
Considerations And Management

- Medications - Paracetamol, NSAIDS, muscle relaxants, tricyclic antidepressants, opioids
- Exercise – new foremost recommended approach
- VTCT Level 4 Low Back Pain Specialist Course
National Guidelines

- **The National Institute for Clinical Excellence (NICE)**
  *Low back pain: Early management of persistent nonspecific low back pain* (2009)

- **European Guidelines**

- **The Royal College of General Practitioners**
  *Clinical Guidelines for the Management of Acute Low Back Pain* (2001)

- **The Chartered Society of Physiotherapy (CSP)**
  *Clinical guidelines for the physiotherapy management of persistent low back pain* (2006)
Any

Questions???