Low back pain (LBP)

- Pain between lowest ribs and inferior gluteal folds

Triage: Non-specfic, + neurological involvement, + serious pathology (red flags)

Risk factors of chronic back pain: NRS >7 at presentation, Long duration of symptoms, Poor locus of control, Sciatica, Numerous episodes, Job dissatisfaction, Depression or anxiety, Activity intolerances, Poor endurance of lumbar extensors, Poor physical fitness

Non-specfic LBP

- 20 yrs -55 yo
- Lumbrosacral region, buttocks and thighs
- Pain is mechanical, better with rest, worst with activity, sudden motion can cause reflex spasm of paraspinal muscles
- Patient appears to be well
- Deep, dull ache, stiffness - worse at end of the day
- unilateral leg pain that does not extend past the knee
- ESR, CRP, Calcium phosphate + Alkaline phosphate WNL

Red Flags

- <20yo onset or >55yo
- Violent Trauma
- Constant, progressive, non-mechanical pain
- Previous hx of cancer, use of corticosteroids, drug abuse or HIV
- Systemically unwell, weight loss
- Persistant, severe restriction on lumbar flexion
- Widespread neuro signs/symptoms
- Structural deformity
- ESR >25
- Plain X-ray showing VB collapse/bone destruction

Cauda Equina: Difficulty with mictrurition , loss of anal sphincter tone/faecal incontinence

- Saddle anaesthesia @ anus, perineum/genitals
- Widespread (>1 NR)
- Progressive motor weakness in the legs
- Gait disturbances

Inflammatory: <40 yo, Marked morning stiffness, persisting limitation of spinal movements in all directions, Iritis, Skin rashes, Colitis and urethral discharge, Family Hx

Referral from abdominal organs: GI, Urinary, Gynaecologic symptoms

Red Flags (cont)

- Getting out of bed to pace around at night

- **Pain + Fever consider:** Epidural abscess, Septic diskitis, osteomyelitis, bacteremia/infection endocarditis
- **Pain + Weight loss/anorexia** = malignancy, mets
- **Pain + bowel/bladder dysfunction** - spinal cord disease (corticosteriods = compression f#, anticoagulants = retroperitoneal haemorrhage)

Yellow Flags

- Unsatisfactory restoration of activities
- Failure to return to work
- Unsatisfactory response to treatment
- Depression
- Passive coping strategies
- Higher disability levels

Use the Bournemouth Questionnaire (BQ) for psychosocial elements of LBP

Serious Disorders

- Osteomyelitis
- Malignancy
- TB
- Cauda Equina

Pitfalls

- Spondyloarthropathies - Psoriatic Arthritis, AS, Reiters, IBD - UC/Crohns
- Vascular causes
- Manipulable lesions + OA can develop together

Referals

Urgent: Cauda Equina, Spinal F#, Dissecting AAA

Other: Neoplasm/infection, Back pain without a clear diagnosis, Paget's , other causes of non-mechanical LBP

Hx

Facet : Sudden onset, localised spasm, protective lateral deviation, relieved by sitting and bending forward, hyperlordosis present, aggravated by movement + transferring from sitting to standing, pain on extension

Systemic: Not associated with body position, Pain worse at rest, Night pain

Spondy: Pain aggravated by standing/walking, relieved by sitting

Disc: Aggravated by sitting, improved with standing
pain related to posture, movement and posture - especially forward flexion
relieved by lying down

Investigations

- X-rays
- MRI
- CT
- Bone Scan
- DEXA Scan
- Urinalysis
- ESR/CRP/FBC
- Anti-CCP
- SAP
- PSA (males >50 yo)

- Elderly
- Constitutional symptoms
- Failed Conservative therapy

in children

Consider: mechanical disorders of intervertebral joints - psychological (look for problems at home, school and/or sport), Spondylolisthesis

- Rule out: Osteoid Osteoma & Malignant osteosarcoma

In Elderly

Consider: Malignancy

- Degenerative spondy
- VB pathological F#
- Occlusive Vascular Disease
- Mechanical LBP - localising discomfort to LS area - worse with stretching, twisting walking or bending

Aching in Buttock/thigh, relieved by rest can present at night when turning around/changing positions during sleep

Sciatica

- Sharp/tingling/shooting/electrical pain
- aggravated by coughing, straining, sneezing
- SMR in the affected dermatone

Spondylolysis/AS

See Sheet

Abnormal Illness Behaviour (AIB)

- Vague and poorly localised pain

- A yellow flag

- Linked with anxiety, depression and hx of substance abuse

- Waddell:

1. Pain at the tip of the tailbone with direct injury {{nl)) 2. Whole leg pain in a stocking distribution
3. Whole leg numbness in a stocking distribution that occurs at times
4. Whole leg giving way when other times it works fine
5. Complete absence of any periods with very little pain in the past year - reports pain is getting worse on each consultation
6. Intolerance of, or reactions to many different treatments
7. Emergency admission to hospital with simple backache not due to fracture

- Behavioural signs:

1.Widespread tenderness, crossing anatomical borders
2. Waddells both tests reproduce pain
3. SLR normal when patient is distracted
4. More widespread weakness - weakness is jerky

- When you cannot use these classifications : Patients with possible serious pathology/widespread neurological pathology, >60 yo, Ethnic minorities

Management

- Usually resolves in 6-12 weeks

ACute LBP: Advice to stay active + NSAIDs, SMT, Behaviour therapy, multidisciplinary treatment (subacute)

Chronic LBP: Exercise therapy (strengthen core muscles), intensive multidisplinary treatment programmes, muscle relaxants, analgesics, acupuncture, antidepressants, back schools, CBT, NSAIDs, SMT

- Heat, cold packs and massage = acute phase (2-4 weeks)

Only refer for surgery when:

- Progressive neurologic deficit is present

-Intractable pain, not getting better with conservative care

- Structural lesions present