

MSK SERVICES PATHWAY - ELBOW PATHOLOGY

GPs to follow guidance offered within this pathway and where relevant refer using Ardens templates and within remit of CCG Restricted and Not Routinely funded policy.

RED FLAG

Diagnosis to monitor

- Septic arthritis
- Dislocations
- Neurological lesion
- Fractures
- Tumours

History & Symptoms

Medical Professionals seeing patients with MSK complaints in primary care should be trained in assessing for alarming features and red flags in all patients. [▶ Click Here](#)

Injury

Consider admission/urgent referral [▶ Click Here](#)

ASSESSMENT & DIAGNOSIS OF OTHER CONDITIONS

Tennis or Golfer's elbow [▶ Click Here](#)

OA of the Elbow Joint [▶ Click Here](#)

Loose Body [▶ Click Here](#)

Nerve Entrapment at the Elbow [▶ Click Here](#)

Unstable Elbow [▶ Click Here](#)

RED FLAG SCREENING: SPECIFIC FOR ELBOW PATHOLOGY

History & Symptoms

Medical Professionals seeing patients with MSK complaints in primary care should be trained in assessing for alarming features and red flags in all patients.

CONSIDER ADMISSION/URGENT REFERRAL IF:

History of, or suspected malignancy investigate and refer as appropriate.

SYMPTOMS SUGGESTIVE OF TUMOURS (PRIMARY OR METASTATIC):

- PMH of cancer- Bony metastasises develop in 2/3 of patients with cancer mostly prostate, breast, kidney, lung, thyroid, myeloma
- Unexplained weight loss
- Non-mechanical night pain
- Deep, intense pain
- Pain worse at night
- Fever
- Mass presence
- Emergence of bony lump
- Lymphadenopathy
- Atypical presentation

If History of cancer, needs to be referred urgently for specialist assessment in line with 2 week fast track cancer pathway.

SYMPTOMS SUGGESTIVE OF INFECTION OR SEPTIC ARTHRITIS:

- Risk factors for sepsis include: Comorbidities of RA, or OA, prosthetic joint, low socioeconomic level, diabetic, alcoholism, previous intra-articular joint injection, IV use
- Constant pain
- Sudden onset, red, hot, pyrexia or red-hot joint
- High inflammatory markers
- Systemic symptoms
- Fever, not always present

Infections refer to ED.

Suspected inflammatory condition, investigate and refer to Rheumatology – see Rheumatology pathway.

SYMPTOMS SUGGESTIVE OF ACUTE SHOULDER JOINT FRACTURE/DISLOCATIONS:

- Trauma
- Pathological fracture (OP, Paget's, multiple myeloma, PMH Ca)
- Neurovascular deficit
- Deformity
- Muscle wasting

Suspected fracture, dislocation, refer to ED

Injury

CONSIDER ADMISSION/URGENT REFERRAL IF:

- Suspected fracture- consider pathological fracture with minimal trauma in patients with Paget's, Gauchers disease, osteoporosis, PMH of CA, multiple myeloma, osteogenesis imperfecta
- Significant trauma
- Dislocation
- Distal Bicep/triceps Tendon Rupture urgent referral to Orthopaedics/A&E/Fracture Clinic based on clinical presentation

DIAGNOSIS: TENNIS OR GOLFER'S ELBOW

TYPE OF INFORMATION	GUIDELINES
Background information	<p>LATERAL EPICONDYLITIS/TENDINOPATHY</p> <p>Lateral epicondylitis is also known as tennis elbow. It has a high prevalence of between 1-3% of the population, with an incidence in general practice of 4-7 consultations per 1000. The peak onset is between 40-50 years. Women and men are equally affected. The dominant arm is affected in 75% of people.</p>
Subjective History	<ul style="list-style-type: none"> • Lateral elbow and upper forearm pain • Typically pain of gradual onset, worsened with use of affected muscles • Precipitating factors: repetitive movements involving forearm muscles, acute injury, occupational or recreational activities that may provoke pain • Need to exclude pain from other sources: cervical spine, elbow arthropathy, radial tunnel syndrome. Shoulder, neurological symptoms
Examination findings	<ul style="list-style-type: none"> • Pain on resisted wrist extension with elbow fully extended • Pain with forced wrist flexion with elbow extended • Pain with resisted extension of the 3rd finger with elbow extended • Pain have some pain with active and passive movements at the elbow- but can also be normal • Localised tenderness over and distal to the lateral epicondyle • Possible reduction in grip
Investigations	<ul style="list-style-type: none"> • Investigations often only necessary when considering a differential diagnosis • X-ray appropriate IF suspecting fracture • MRI or US scan may be performed at discretion of consultant in secondary care
Conservative management	<ul style="list-style-type: none"> • Consider analgesia and NSAIDs. • Advise joint care, ice treatment • Exercise therapy: resistance exercises can result in reduced pain and improved function. Programmes that concentrate on eccentric and concentric exercise are resorted to be effective • Evidence suggests 12 weeks of exercise therapy • Injection: In the case of refractory symptoms, only one corticosteroid injection may be considered
Referral on for orthopaedic opinion:	<ul style="list-style-type: none"> • If no improvement after 12 weeks refer to orthopaedic surgeon <p>PROGNOSIS:</p> <ul style="list-style-type: none"> • Usually self-limiting • Duration is between 6 months and 2 years • 20 % of people still report symptoms after 1 year
Background information	<p>MEDIAL EPICONDYLITIS/TENDINOPATHY</p> <p>Medial epicondyle pain is often referred to as golfer's elbow or carpi radialis tendonitis/ tendinopathy. It is less common than lateral elbow pain</p>
Subjective History	<ul style="list-style-type: none"> • Medial elbow pain and tenderness of the flexor muscles • Pain typically of gradual onset, worse with use of the effected muscles • Precipitating factors: repetitive movements involving forearm muscles, acute injury, occupational or recreational activities that may provoke pain • Need to exclude pain from other sources: cervical spine, elbow arthropathy, cubital tunnel syndrome. Shoulder, neurological symptoms

DIAGNOSIS: TENNIS OR GOLFER'S ELBOW

TYPE OF INFORMATION	GUIDELINES
Examination findings	<ul style="list-style-type: none"> • Pain on wrist flexion and pronation • Can have pain on active and passive movements at the elbow, but often this can be normal • Localised tenderness over and distal to medial epicondyle • Possible intermittent or on occasion constant, numbness or tingling radiating into the 4th and 5th fingers, exacerbated by elbow flexion or tapping over the nerve (close proximity to cubital tunnel)
Investigations	<ul style="list-style-type: none"> • Investigations often only necessary when considering a differential diagnosis • X-ray appropriate IF suspecting fracture • MRI or US scan may be performed at discretion of consultant • NCS where nerve entrapment or cervical spine involvement suspected
Conservative management	<ul style="list-style-type: none"> • Advise joint care, ice treatment • Exercise therapy: resistance exercises can result in reduced pain and improved function. Programmes that concentrate on eccentric and concentric exercise are resorted to be effective • Evidence suggests 12 weeks of exercise therapy • Injection: In the case of refractory symptoms, only one corticosteroid injection may be considered at the discretion of the orthopaedic consultant
Referral on for orthopaedic opinion:	<ul style="list-style-type: none"> • If no improvement after 12 weeks refer to orthopaedic surgeon <p>PROGNOSIS:</p> <ul style="list-style-type: none"> • Usually self-limiting • Duration is between 6 months and 2 years • 20 % of people still report symptoms after 1 year

DIAGNOSIS: OA OF THE ELBOW JOINT

TYPE OF INFORMATION	GUIDELINES
Background information	<p>Osteoarthritis of the elbow occurs when the cartilage surface of the elbow is damaged or becomes worn. This can happen because of previous injury such as dislocation or fracture, or it may be the result of degenerative joint disease. OA usually affects the weight-bearing joints. The elbow is one of the least affected joints due to the congruence of the joint surfaces and the strong stabilising ligament complex. Elbow OA that occurs without previous I injury is more common in men than women. Onset typically occurs in patients 50 years of age or older, but some patients can have symptoms earlier.</p>
Subjective information	<ul style="list-style-type: none"> • Most patients who are diagnosed with elbow OA have a history of injury to the elbow joint, possibly fracture or dislocation • Risk of elbow OA increases if the patient needed surgery to repair the injury • Injury to the ligaments of the elbow can also lead to OA due to increased forces across the joint surfaces • Work or sporting activities may exacerbate symptoms where the patient places more demands on the joint than it can withstand • Pain may experience around the joint and down into the forearm • Patient may describe a loss of movement • Patient may report a sensation of locking or grating • May report joint swelling and stiffness after activity and rest • In the later stages of elbow OA, patient may report numbness in the ring and little finger on the affected side due to irritation/.compression of the ulnar nerve in the cubital tunnel

DIAGNOSIS: OA OF THE ELBOW JOINT

TYPE OF INFORMATION	GUIDELINES
Examination findings	<ul style="list-style-type: none"> • Loss of normal range of movement- loss of extension is more common than a loss of flexion • Catching or grating with movement • Muscle weakness • In severe cases may be some evidence of joint instability/ligament laxity • Loss of sensation in the ulnar nerve distribution in the forearm/hand (later stages)
Investigations	AP and lateral elbow views
Conservative management	<ul style="list-style-type: none"> • Treatment depends on the stage of the disease, previous history, expectations of the patient, overall medical condition and results of diagnostic x-rays • Early stages of elbow OA, most common treatment is non-surgical • NSAIDs/analgesia- refer to GP • Physiotherapy to improve /maintain AROM, muscle strength, restore/maintain function • Refer to orthopaedic consultant if deepening on stage of disease and function
Referral on for orthopaedic opinion	<ul style="list-style-type: none"> • If x-ray shows arthritic changes with limitation of function, refer directly to Orthopaedic Surgeon

DIAGNOSIS: LOOSE BODY

TYPE OF INFORMATION	GUIDELINES
Background information	Rare condition, will few cases every year to be referred
Subjective History	<ul style="list-style-type: none"> • Pain at the elbow joint • Locking • Grating or crepitus with movement • Swelling
Examination findings	<p>Clicking and locking of the elbow, which may be painful</p> <ul style="list-style-type: none"> • Possible swelling • May have block to full extension
Investigations	<ul style="list-style-type: none"> • X-ray A-P and lateral elbow views
Conservative management	<ul style="list-style-type: none"> • Injection: NOT indicated
Referral on for orthopaedic opinion:	<ul style="list-style-type: none"> • If loose body is evident on x-ray and patient has pain and locking refer on to Orthopaedic Surgeon

DIAGNOSIS: NERVE ENTRAPMENT AT THE ELBOW

TYPE OF INFORMATION	GUIDELINES
Background information	<p>Cubital Tunnel Syndrome:</p> <p>The ulnar nerve is one to the three main nerves in your arm. It travels from your neck down into your hand. It can be restricted in several places in the arm, beneath the collar bone, at the elbow and wrist. Most common place for compression of the nerve is behind the inside part of the elbow. Ulnar nerve compression at the elbow is often called cubital tunnel syndrome. Some factors may predisposes patients to the condition such as; prior fracture or dislocation, bony spurs, OA elbow, cysts near the elbow and repetitive or prolonged activities that require the elbow to be bent or flexed for prolonged periods.</p>
Subjective History	<ul style="list-style-type: none"> • Numbness and tingling sensation in the hand and fingers (little, ring finger most affected) • Pain at the elbow and into lateral border of the forearm • Weakness of grip (usually associated with more severe cases) • Symptoms made worse with repeated or sustained elbow flexion • Waking at night with numb fingers • May reported intermittent swelling
Examination findings	<ul style="list-style-type: none"> • Reduced grip • Muscles wasting in the hand (more severe cases) • Positive tinnels sign at the elbow/guyons canal • Reproduction of symptoms with sustained elbow flexion • Altered movement of the ulnar nerve at the elbow during flexion/extension • Claw-like deformity of the hand (more severe cases)
Investigations	<ul style="list-style-type: none"> • X-ray may be useful to eliminate possible cause of symptoms such as OA, bony spurs, loose bodies • Consider Nerve Conduction Studies Referral prior to referral to secondary
Conservative management	<ul style="list-style-type: none"> • Physiotherapy 6-12 weeks • Consider analgesia and NSAIDs injection • Splinting
Referral on for orthopaedic opinion:	<ul style="list-style-type: none"> • Referral to orthopaedic surgeon if abnormal nerve conduction studies and if no improvement with physiotherapy in 6-12 weeks • If subluxing ulna nerve or severe intrinsic wasting please refer to orthopaedic surgeon <p>Prognosis following surgery:</p> <ul style="list-style-type: none"> • Results of surgery are generally good • 85% of patients respond to some form of surgery • Each method of surgery has a similar success rate for routine case of nerve compression • If the nerve is has been compressed for some time or if muscle wasting is evident, the nerve may not be able to return to normal • Some symptoms may remain after surgery • Nerves recover slowly, it may take a long time to assess the response to surgery

DIAGNOSIS: UNSTABLE ELBOW

TYPE OF INFORMATION	GUIDELINES
Background information	<p>Elbow instability is a looseness in the elbow joint that may cause the joint to catch, pop, or slide out of place during certain arm movements. It most often occurs as a result of an injury typically an elbow dislocation. This type of injury can damage the bone and ligaments that surround the elbow joint. There are 3 different types of recurrent/chronic elbow instability: Posterolateral rotatory, valgus and varus posteromedial rotatory instability.</p> <ul style="list-style-type: none"> • Posterolateral rotatory instability - elbow slides in and out of the joint due to an injury of the lateral collateral ligament complex. Most common type of recurrent instability. Typically caused by trauma such as a fall on an outstretched hand, may develop as a result of a previous surgery or longstanding elbow deformity • Valgus instability - Unstable due to an injury of the ulnar collateral ligament. Most often caused by repetitive stress as seen in overhead athletes. May also result from a traumatic event • Varus posteromedial rotatory instability - Elbow slides in and out of the joint due to a injury of the lateral collateral ligament complex, in addition to a fracture of the coronoid portion of the ulna bone. Typically caused by a traumatic event such as a fall
Subjective History	<ul style="list-style-type: none"> • History of previous elbow dislocation or previous surgery may be described/reported • Patient feels as though elbow is giving way or 'pop' out of place • Unable to do press ups or push up off chair • May describe locking, catching or clicking at the elbow • May feel pain on the inside of elbow with overhead activity or throwing an object at speed
Examination findings	<ul style="list-style-type: none"> • Varus +/- valgus stress tests may be positive • Tenderness on palpation • Muscle weakness
Investigations	<ul style="list-style-type: none"> • X-ray elbow AP and lateral (although x-rays cannot show soft tissue, they can be helpful in identifying fractures, dislocations or subtle changes in alignment of the elbow) • MRI - may show tears in the ligaments, muscles, tendons (not typically necessary for a diagnosis of elbow instability, request should be left to the discretion of orthopaedic consultant)
Conservative management	<ul style="list-style-type: none"> • If mild signs or symptoms: refer to Physiotherapy • Activity modification • NSAIDs
Referral on for orthopaedic opinion:	<ul style="list-style-type: none"> • Elbow instability is a rare problem • But it is complex and needs specialist surgery if symptoms do not improve with conservative management • A highly competitive athlete who has a complete tearing of the ulnar collateral ligament may require surgery to return to normal function • If obviously unstable: Referral to Orthopaedic Surgeon