

Knee Pain Pathway (Age 16+)

Date published	Modified March 25
Version	1.5
Review date	Every 12 months

Exclude Red Flags requiring Emergency treatment

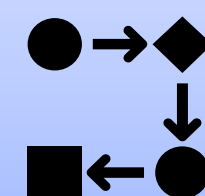
- History of recent significant trauma/Suspected Fracture – **Send to ED**
- Clinical suspicion of Infection – **Complete News 2 and Send to ED**
- Acute Locked Knee - a truly locked knee is a rare occurrence – **Send to ED**

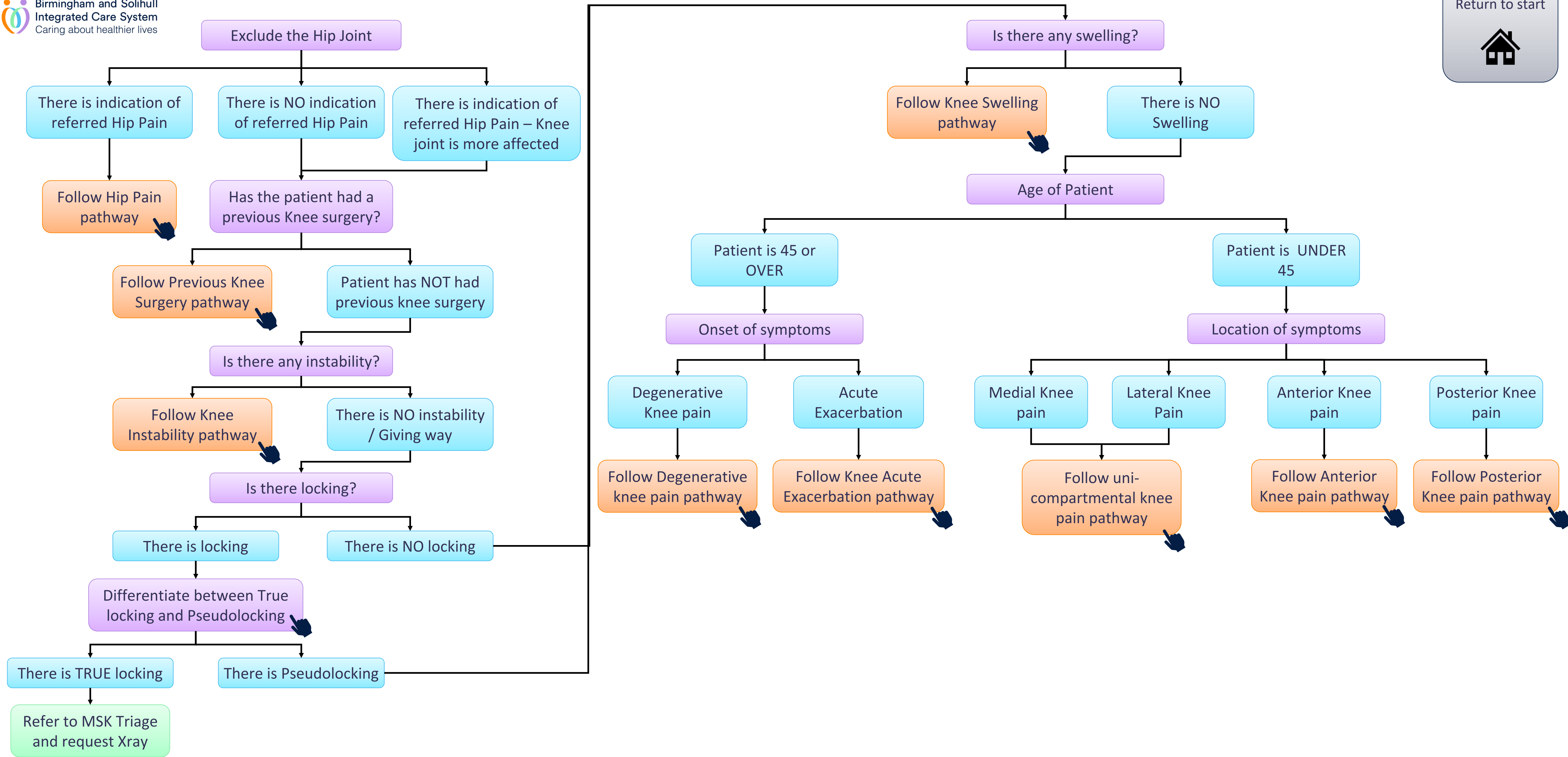
Exclude Amber Flags requiring urgent treatment

- NEW Atypical mass or Swelling – [NICE Guidance - Symptoms suggestive of bone and soft tissue sarcoma](#) Check criteria and Refer for 2WW to Sarcoma Clinic
- Suspected Inflammatory Disease – Differentiate between Crystal and Non-Crystal Arthropathy - Refer Non-Crystal Arthropathy to Rheumatology
- Rapid Deterioration of symptoms following Surgery – Ensure no systemic infection – Urgently refer to Secondary care back to the operating surgeon
- History of recent significant trauma with persisting symptoms (within 6 weeks) - Patella dislocation, high speed rotational twisting injury, direct heavy blow to the knee, heavy fall – Refer urgently to MSK Knee triage

Crystal/non-Crystal
differential

Start Knee Pain
Pathway





Degenerative Knee pain / Knee Osteoarthritis

Symptoms of age-related change

- Pain that is insidious in onset, variable or intermittent over time ('good days, bad days')
- Pain can be over one compartment, anterior or generalised
- Difficulty with prolonged walking, stairs getting in /out car
- Activity-related joint pain
- No morning joint-related stiffness or morning stiffness that lasts no longer than 30 minutes.

Typically, is bilateral and symmetrical, affecting the medial tibiofemoral, lateral tibiofemoral, or patellofemoral compartments, with pain localized to the affected compartment.

- Medial tibiofemoral involvement causes anteromedial pain, mainly on walking.
- Lateral tibiofemoral involvement causes anterolateral pain, mainly on walking.
- Patellofemoral involvement causes anterior knee pain worsened on inclines or stairs, particularly when going down, and progressive aching on prolonged sitting that is relieved by standing.

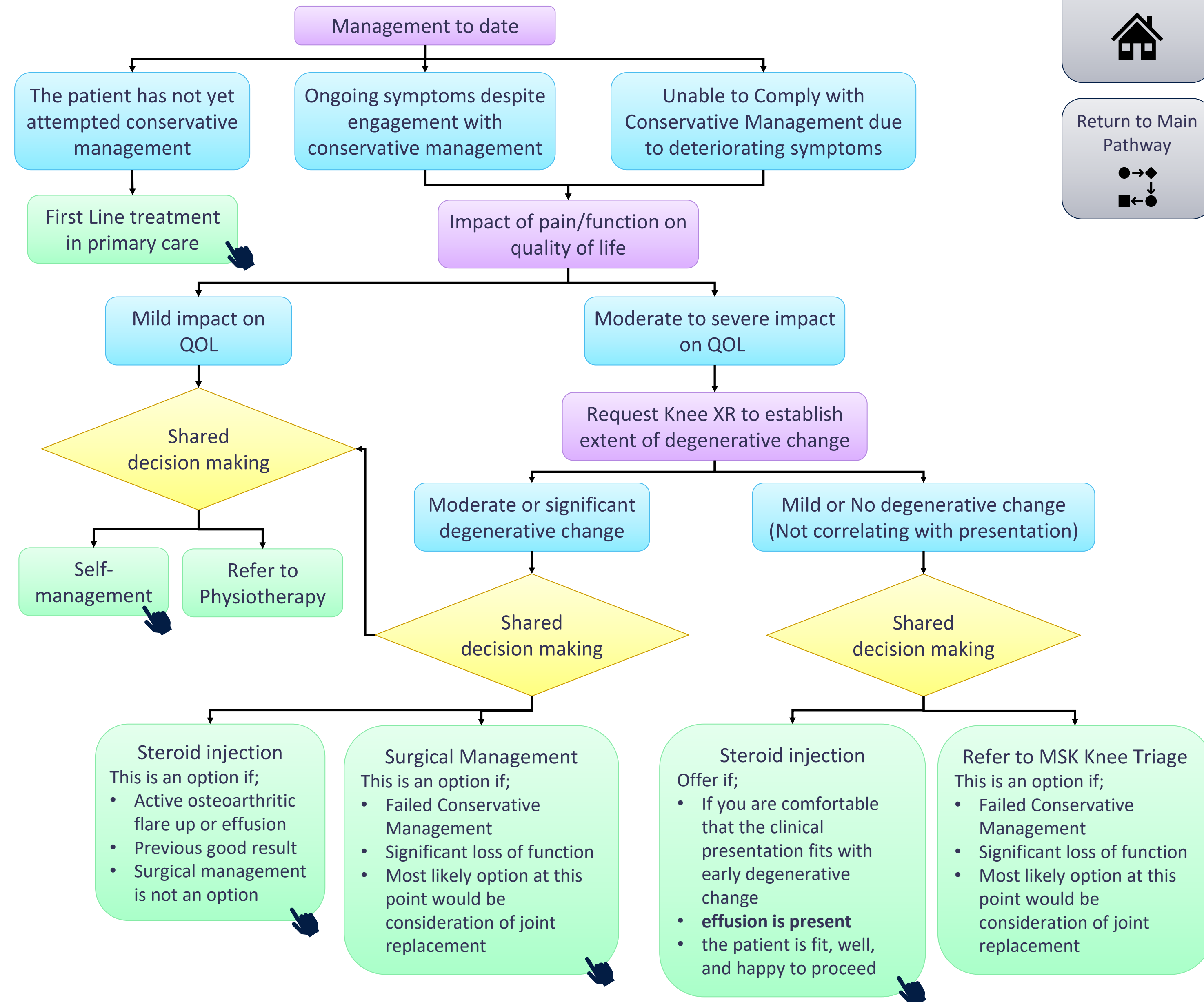
May have associated features, including:

- Giving way — due to altered patella tracking, weak quadriceps muscles, severe patellofemoral involvement, and altered load-bearing mechanics. Note: weakness of the quadriceps is suggested if passive extension of the knee joint is greater than active extension.
- Locking (inability to straighten the knee) — suggests loose meniscal cartilage in the joint.
- Crepitus and tenderness along the joint line or with pressure on the patella.
- Restricted flexion and extension.

In advanced disease, there may be:

- Bony swelling of the femoral condyles and lateral tibial plateau.
- Varus (bow-legged), or less commonly valgus (knock-knee), deformity.
- An antalgic gait.

<https://cks.nice.org.uk/topics/osteoarthritis/>



First line treatment/Self-management for Degenerative knee pain/Knee OA

All patients need to have positively attempted conservative management other than in extenuating circumstances, these include;

- Appropriate Pain Management.
- Simple Self-management strategies
- Weight loss for patients with BMI >30kg/m²
- Appropriate exercises or Physiotherapy/ Exercises

Consider paracetamol and/or topical non-steroidal anti-inflammatory drugs (NSAIDs) ahead of oral NSAIDs - [NICE guidance](#)

Explain that imaging is **NOT** routinely required for knee pain in the absence of mechanical symptoms or red flags.

If patient is digitally enabled, prescribe the getUbetter app

Messaging for the patient

- Having sore knees is common and isn't usually a sign of anything serious
- The pain does not mean you are causing damage to your knee – it has just become more sensitive
- Protecting your knee and avoiding movements and activity can make your knee worse however you may have to go gently to begin with to prevent flaring up your knee pain
- Most acute knee pain will settle down on its own accord within a few days-to-weeks
- Carrying extra body weight makes it more likely that you will experience joint pain. If you already have joint pain, being overweight can make your symptoms worse. Losing even a small amount of weight can make a significant difference to knee pain.
- Return if no improvement after 3 months OR if you develop worsening pain or reduced function.
- If you are returning for a further appointment, consider reading through <https://www.england.nhs.uk/wp-content/uploads/2022/07/Making-a-decision-about-knee-osteoarthritis.pdf>

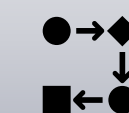
Additional Information/Support

- <https://www.versusarthritis.org/about-arthritis/conditions/knee-pain/>
- <https://www.versusarthritis.org/about-arthritis/exercising-with-arthritis/exercises-for-healthy-joints/exercises-for-the-knees/>
- <https://roh.nhs.uk/services-information/musculoskeletal/royal-orthopaedic-exercise-programme/lower-limb-exercises> - level 1 lower limb exercises
- <https://roh.nhs.uk/services-information/therapy/exercises-for-osteoarthritis-of-the-knee>
- <https://www.england.nhs.uk/wp-content/uploads/2023/07/making-a-decision-about-knee-osteoarthritis-v1.pdf.pdf>

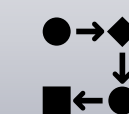
Return to start



Return to Main
Pathway



Return to Knee
OA Pathway



Steroid injection for Knee OA

[Formulary Link](#)

Please consider at this point whether the patient would benefit from a more detailed MSK assessment or whether you feel comfortable proceeding with a steroid injection in primary care.

Side effects include:

- infection (rare if sterile technique used)
- post-injection flare of pain
- hyperglycaemia in people with diabetes

Monitor post injection for any immediate adverse response

Safety net regarding accessing ED care if developing signs of infection and/or allergic response

Messaging for the patient

- Knee joint steroid injections may provide some relief from symptoms, further assessment is often required to manage the underlying cause of pain.
- Relative rest should be advised for 10 days post-injection.
- Avoid excessive exercises and heavy lifting.
- The injection may last anywhere between 0-6 months
- Book a review following injection if symptoms do not settle or has an adverse reaction to injection
- Please read the Steroid Information Sheet
- You will be re-examined by the injecting clinician at your next appointment to confirm that this is the best treatment option for you

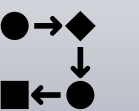
Additional Information/Support

- <https://roh.nhs.uk/services-information/pain-management/steroid-injection-therapy>
- <https://www.versusarthritis.org/about-arthritis/treatments/drugs/steroid-injections/>

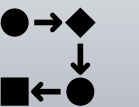
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Return to Knee
OA Pathway



Surgical Management for Knee OA

Surgical management for significant wear of the knee includes joint replacement.

<https://www.england.nhs.uk/wp-content/uploads/2022/07/Making-a-decision-about-knee-osteoarthritis.pdf>

It is important to be aware that a successful outcome is not guaranteed;

- 75% report being 'much better'
- 15% report feeling 'a little better'
- 4% report 'the same levels of pre-operative pain'
- 6% report ' MUCH WORSE'
- 5% of patients will develop a significant infection requiring further surgery
- 19% develop post operative stiffness (which may or may not require further surgery).
- 1-2% develop blood clots in the calf (DVT's). Half of these will result in Pulmonary Embolism (which requires urgent treatment and can be fatal).

It is therefore a balance of risks and benefits

- NICE guidance states that patient specific factors (including age, sex, smoking, obesity and commodities) should not be a barrier to referral for joint surgery.
- It is important to discuss with the patient the risk/ benefit of surgery in the context of their comorbidities so they can make an informed decision.
- When making a referral for surgical opinion the patient needs an up-to-date assessment to include the following factors listed below (not an exhaustive list)

Risk factors

- BMI > 36 kg/m²
- Hypertension (>160/100) OR poorly controlled AF OR other cardiac history of relevance
- HbA1c > 68
- Hb level < 13 male or <12 female
- eGFR <60

Relevant medical history

- Heart failure or History of MI or stroke within 1 year
- Active treatment for Cancer within the past year
- Blood Clotting Disorder

Other Factors

- Smoker
- Long term Steroid use

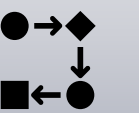
Additional Information/Support

- <https://roh.nhs.uk/services-information/knees/total-knee-replacement>

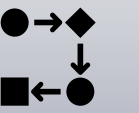
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Return to Main
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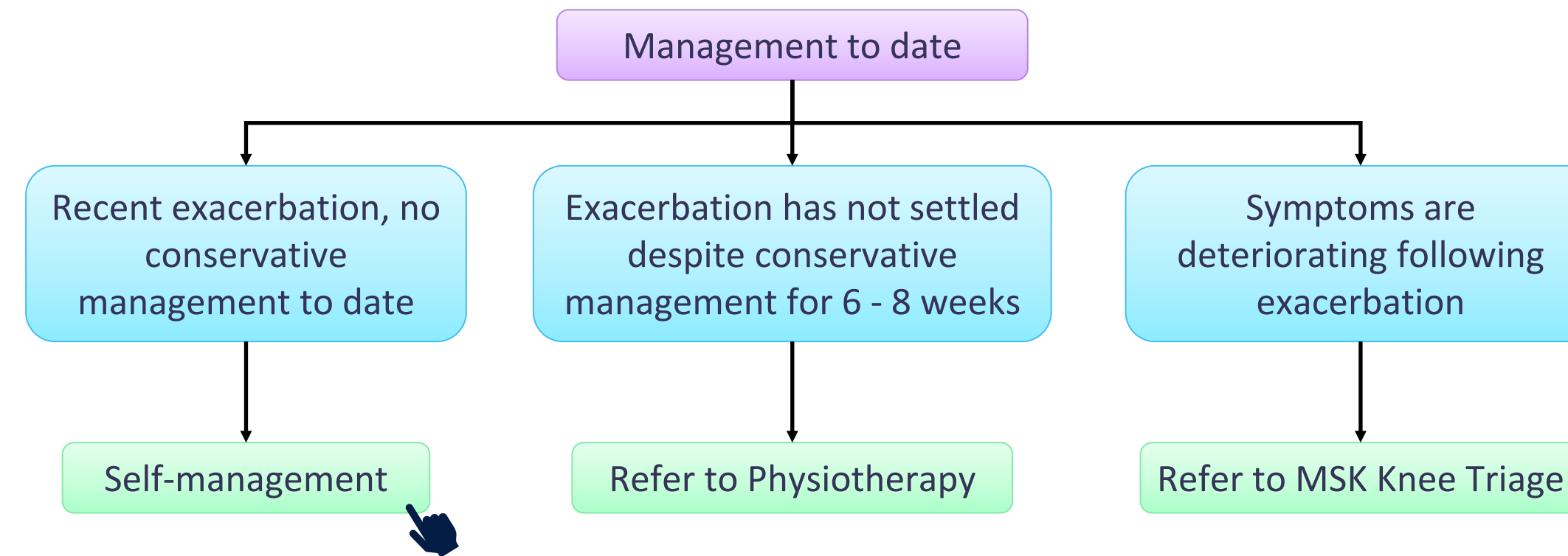
Return to Knee
OA Pathway



Acute Exacerbation of the Knee >45

- A jarring, twist or knock to the knee can result up in a flare-up of some underlying normal wear of a joint.
- It is important to note that a joint can have wear despite the absence of previous pain. A flare up can be very painful and last up to 6-8 weeks.
- The vast majority of cases will settle given time, but reassurance is needed, and advice is important regarding how to best manage the situation
- Painful knees commonly will not straighten but very few will not extend as the pain improves
- Lateral compartment pain will take longer to settle

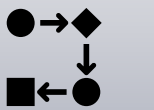
Imaging is **NOT** routinely required for knee pain in the absence of mechanical symptoms or red flags.



Return to start



Return to Main
Pathway



Self-management for acute exacerbation of the knee >45

If patient is digitally enabled, prescribe the getUbetter app

Painful knees commonly will not straighten but very few will not extend as the pain improves

Lateral compartment pain will take longer to settle

Messaging for the patient

- This does tend to cause significant pain for a period that will typically resolve over 6-8 weeks, but these problems do get better!
- Settle the swelling, slowly increase the range at the joint and maintain as much muscle activity as possible with simple exercises to avoid secondary problems
- If you are limping a crutch in the OPPOSITE hand placed on the floor to offload the effected leg can be very helpful to settle the joint and enable a better walking pattern
- Return to GP if symptoms deteriorate or if symptoms are not improving after allowing 6 - 8 weeks to settle

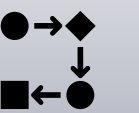
Additional Information/Support

- [https://www.uhcw.nhs.uk/download/clientfiles/files/Acute%20knee%20Injury%20General%20exercises\(1\).pdf](https://www.uhcw.nhs.uk/download/clientfiles/files/Acute%20knee%20Injury%20General%20exercises(1).pdf)
- <https://www.versusarthritis.org/about-arthritis/conditions/knee-pain/>
- <https://roh.nhs.uk/services-information/musculoskeletal/royal-orthopaedic-exercise-programme/lower-limb-exercises> - commence level 1

Return to start



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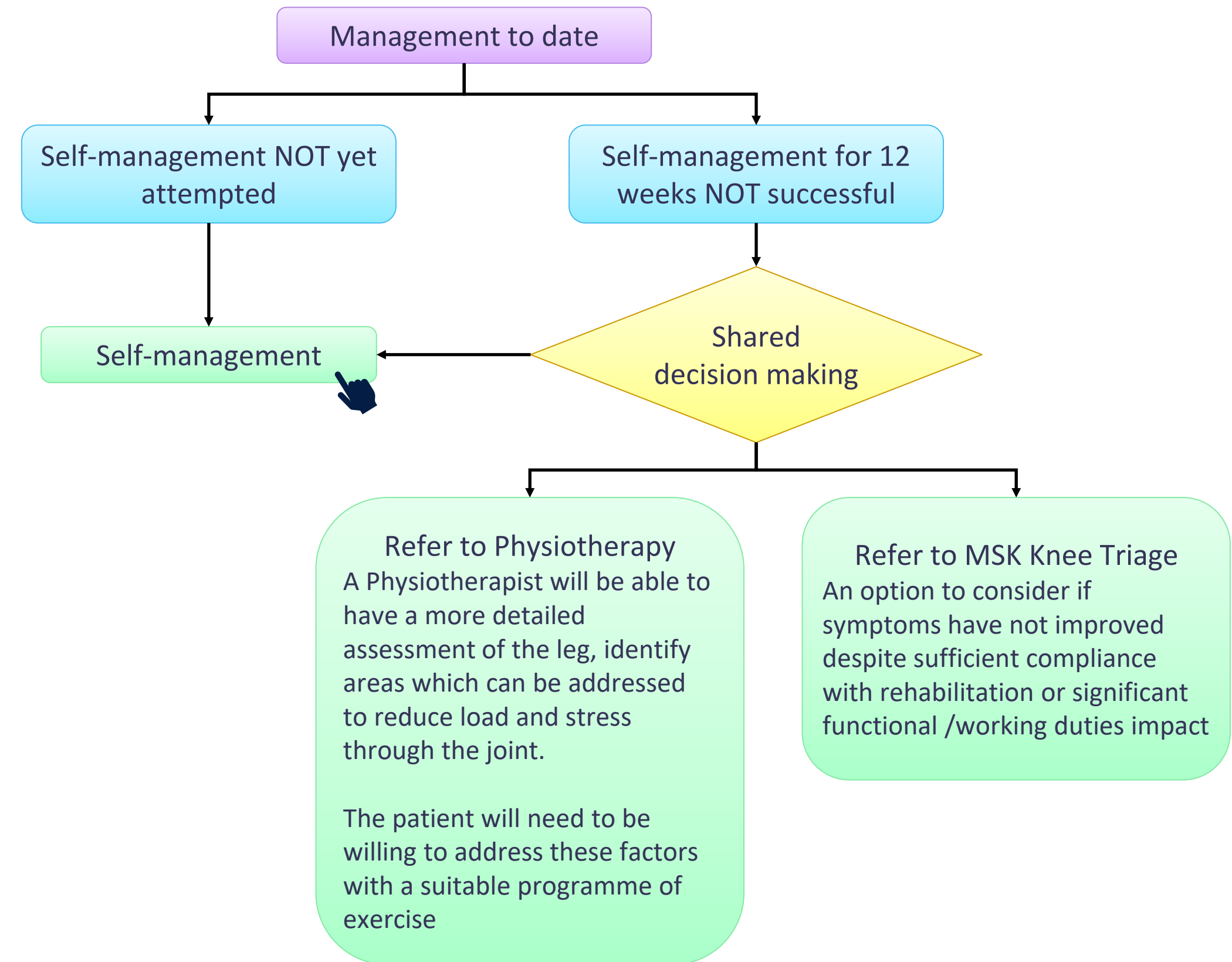


Return to Acute
exacerbation
Pathway



Uni-compartmental knee pain

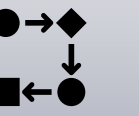
- Given the absence of any mechanical symptoms/indication of internal derangement pain is likely to improve with simple exercises and activity modification where required.
- It is helpful to recognise that joint pain can take 6-8 weeks before it starts to improve.



Return to start



Return to Main
Pathway



Self-management for Uni-compartmental Knee Pain

Advise on simple analgesics (available OTC)

If patient is digitally enabled, prescribe the getUbetter app

Messaging for the patient

- Having sore knees is common and isn't usually a sign of anything serious
- Discomfort does not mean you are causing damage to your knee – it has just become more sensitive.
- Protecting your knee and avoiding movements and activity can make your knee worse and put more stress on other joints
- Simple strengthening exercises can support the joint and help settle symptoms
- If you already have joint pain, being overweight can make your symptoms worse. Losing even a small amount of weight can make a significant difference to knee pain.

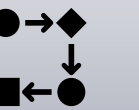
Additional Information/Support

- <https://www.versusarthritis.org/about-arthritis/conditions/knee-pain/>
- <https://roh.nhs.uk/services-information/musculoskeletal/royal-orthopaedic-exercise-programme/lower-limb-exercises> - commence level 1

Return to start

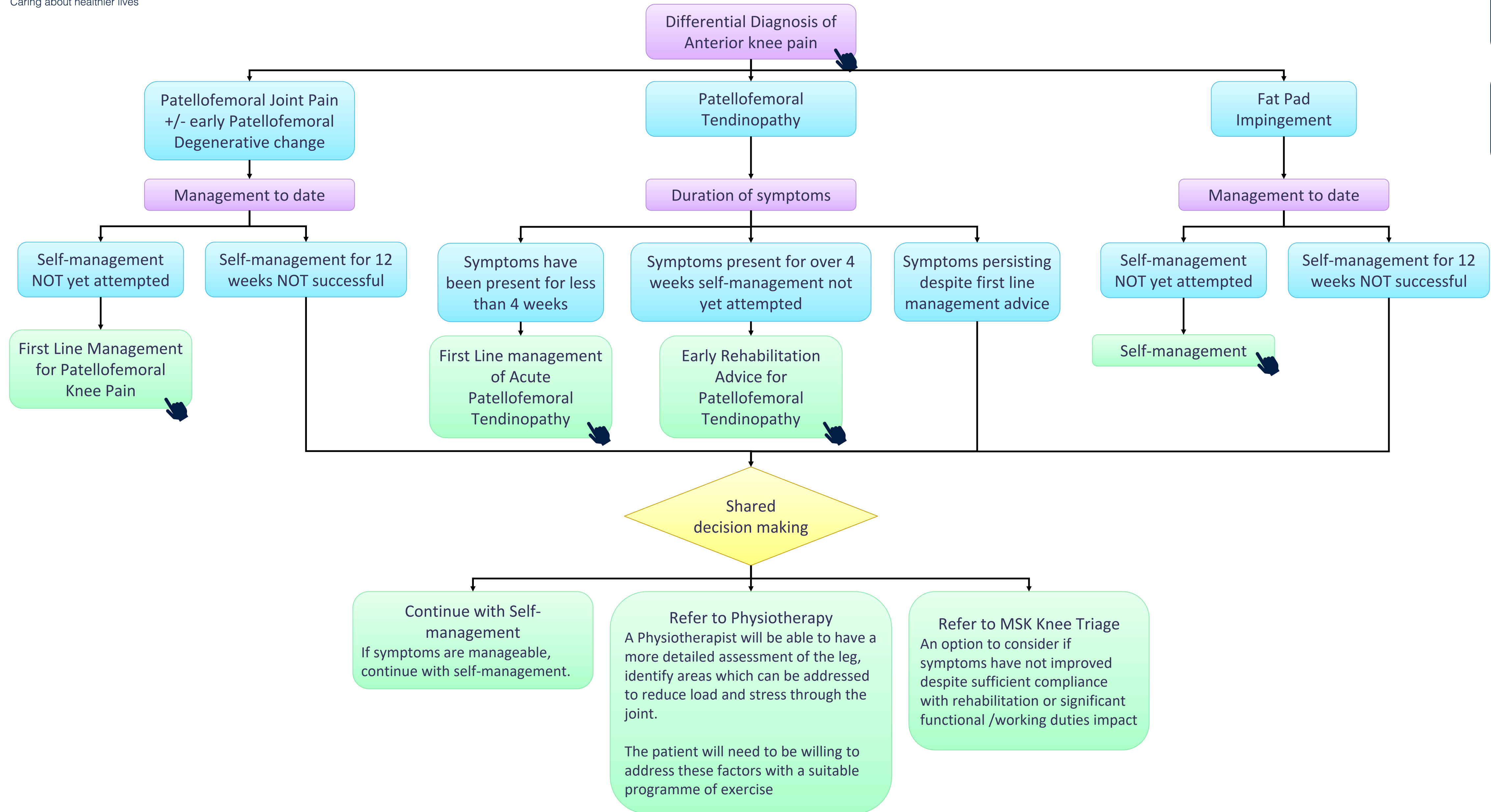


Return to Main
Pathway



Return to Uni-
compartmental
Pathway

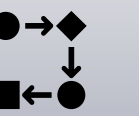




Return to start



Return to Main Pathway



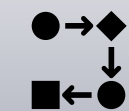
Diagnosis of Anterior Knee Pain

Patellofemoral Joint Pain +/- early Patellofemoral Degenerative change	Patellofemoral Tendinopathy	Fat Pad Impingement
Symptoms may include: • Generalised anterior knee pain • Typically descending slopes or stairs rather than walking on the flat • Kneeling and returning to standing or rising from a seated position • Can also be provoked with repetitive activity such as running, high intensity exercise • Can describe a swelling at the front of the knee 'puffy?' (not true effusion) • 'click' in the front of the knee when flexing and extending, creaking or crunching noise at the front of the knee when squatting or rising from a kneeling position. • Giving way with walking due to pain inhibition	Symptoms may include: • Pain is commonly localised to the inferior pole of the patella • Local early morning stiffness which improves after a few minutes walking • Increased pain at start of activity which eases with exercise or activity. Following activity, the tendon may become painful and stiff • Can be severe enough to stop individuals doing certain activities and sports	Symptoms may include: • Pain deep to and on either side of the patellar tendon adjacent to the inferior pole of the patella • commonly occurs with the knee at full extension, dynamic extension, or prolonged flexion • pain usually occurs over a prolonged period
Risk Factors • Weight • Muscle length /strength changes which put excess force through the joint commonly highlighted by a change in activity	Risk Factors • More commonly found before the age of 30. • More common in men. • Being overweight leaves you more at risk of a patellar tendinopathy. • Sudden and unpredicted increases in load e.g. significant increase in running volume	Risk factors: • May be associated with a previous knee injury, postural hyperextension tendency or may be idiopathic

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Pathway



Return to
Anterior
Pathway



First Line management of Acute Patellofemoral Tendinopathy

There is controversy over the use of Anti-inflammatories in the early stages of tendinopathy.

Anti-inflammatories should be used sparingly and in short courses (available OTC)

If patient is digitally enabled, prescribe the getUbetter app

Messaging for the patient

- It is likely that there is some inflammation at the junction of the tendon and bone. At this point we want to encourage healing but reducing the swelling and avoidance of aggravating activity
- **Ice therapy** - Ice bag (or equivalent) wrapped in damp towel over the patellar tendon (for no more than 15-20 minutes) at regular intervals throughout the day (3-4 times a day if possible) and after exercise.
- **Relative rest** - keep active and maintain fitness doing other forms of exercise. The aim is to encourage continued, non-aggravating stresses through the inflamed tendon
- **Avoid activities such as running and jumping.** Alternatives include swimming, cycling, aqua jogging (running in water).
- If the symptoms are mild, slowly resume light 'on feet' exercise such as Cross training. In the gym exercises such as gentle leg press may help. Avoid high weight and repetition (above 10)
- Other activities such as e.g. Pilates, aqua aerobics, general swimming, and upper limbs routines in the gym or at home are encouraged.

If symptoms persisted more than 4 weeks we then will advise regarding an early exercise programme. Please contact your practice for this next stage of advice (likely to be appropriate for telephone management)

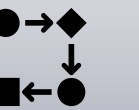
Additional Information/Support

- <https://www.mayoclinic.org/diseases-conditions/patellar-tendinitis/symptoms-causes/syc-20376113>
- <https://www.youtube.com/watch?v=pana391M6hg>

Return to start



Return to Main
Pathway



Return to
Anterior
Diagnosis



Return to
Anterior
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Early Rehabilitation Advice for Patellofemoral Tendinopathy

If patient is digitally enabled, prescribe the getUbetter app

There may be some benefits to further exploring current training:

- Footwear with poor cushioning (e.g. aging trainers or poor quality trainers)
- Excessive plyometric exercises (e.g. jumping, hopping, sudden stop/start and stepping up/down drills).
- Running further or at higher intensity than the patient is used to doing
- Too frequently overloading the tendon and lack of variation of your training programme (e.g. weight training – squats, lunges, squat jumps, hill walking)

Messaging for patients

- Evidence shows that exercises that improve strength can gradually improve the tendons' ability to cope with load.
- The exercises need to be done in a controlled way
- The programme (linked in information) can take several months to significantly improve; however, this is only a guide as symptoms can improve a lot quicker
- There are no 'quick fixes' for this condition.
- Morning stiffness in the tendon is usually the first symptom to improve. Local pain on palpation can take longer to settle

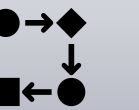
Additional Information/Support

- <https://www.youtube.com/watch?v=VSSg0e3MX7c&t=288s>

Return to start



Return to Main
Pathway



Return to
Anterior
Diagnosis



Return to
Anterior
Pathway



Self-management of Fat Pad irritation

Consider trial local NSAID gel (available OTC)

Messaging for patients

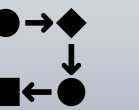
- The infrapatellar fat pad (sometimes known as Hoffa's pad) is a soft tissue structure that lies beneath the kneecap. It can be enlarged and pinched between the top of the shin bone or end of the thigh bone
- It has a rich nerve supply and is a not uncommon source of pain at the front of the knee.
- It can be caused by repeated or uncontrolled over straightening of the knee, previous ligament injury or surgery, or changes to muscle length and strength around the kneecap
- If you have significantly increased your activity levels before the onset of the pain, try to reduce the activity.
- Limit as much as possible, activities or postures that you know cause your symptoms to worse. In particular, try to avoid hyper-extending your knees or doing activities which would encourage this position

Request review if symptoms persist over 2 months and are sufficient to consider more formal rehabilitation

Return to start



Return to Main
Pathway



Return to
Anterior
Diagnosis



Return to
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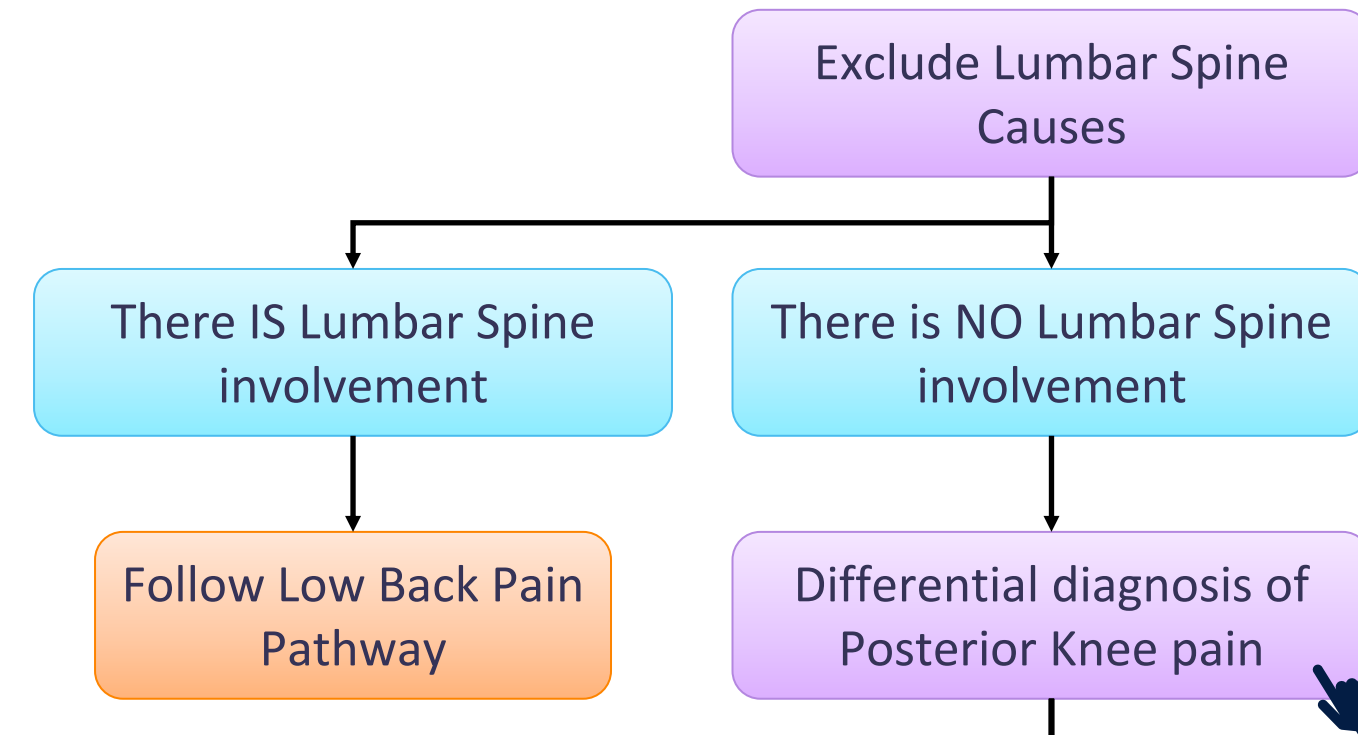


Posterior Knee Pain Pathway

Posterior knee pain is less common than over the anterior, medial or lateral aspect

It is helpful to first exclude a spinal cause. Consider this if

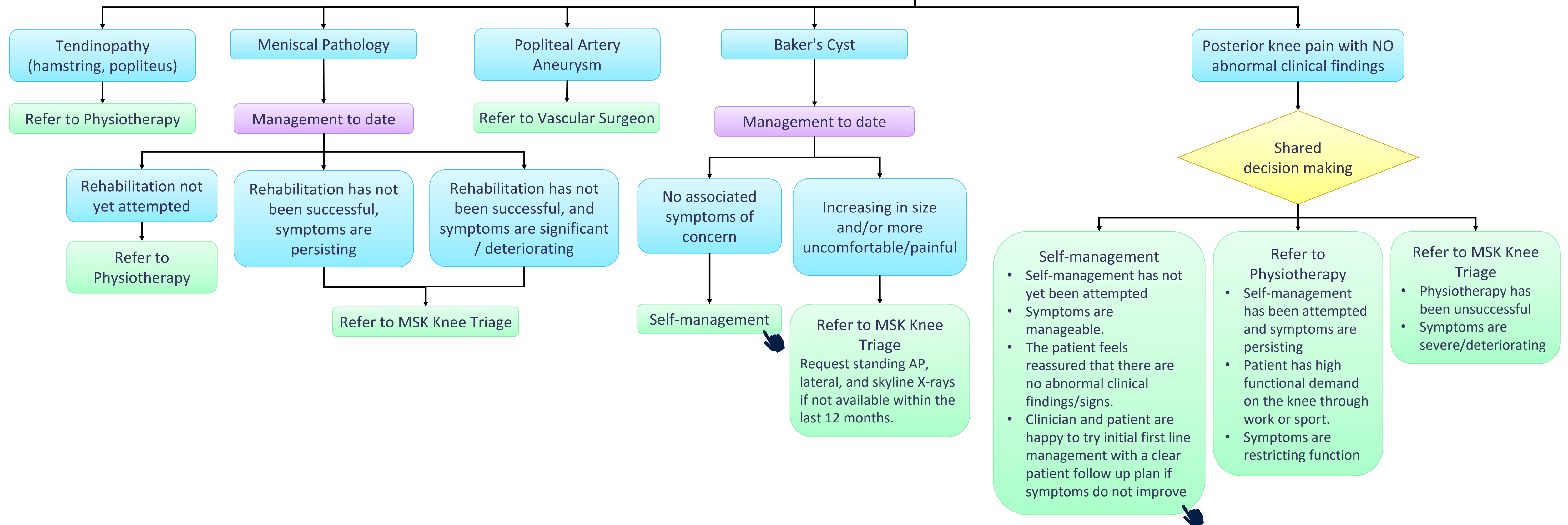
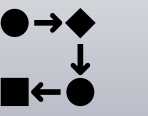
- Symptoms extend down the back of the leg to the knee or from the back of the knee distally
- area associated with any reported sensory change



Return to start



Return to Main Pathway



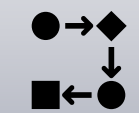
Differential Diagnosis of Posterior Knee Pain

Tendinopathy (hamstring, popliteus)	Meniscal Pathology	Popliteal Artery Aneurysm	Baker's Cyst
Tendinopathy is commonly related to overuse and poor load management, causing a failed healing response of the tendon, resulting in inflammation and degeneration of the tendon. Symptoms are likely to therefore have a specific trigger or event and be activity related. The patient is likely to be able to localise their pain well and there is likely to be some tenderness to palpate the tendon	Sudden onset posteromedial pain usually related to a twist or deep flexion Tenderness is likely to be localised to the joint line	Present with; • Pain in popliteal fossa with prominent pulsatile mass • May have altered distal circulation	Discomfort can arise as a result of a Baker's cyst. This cyst is usually the result of a problem with the knee joint, such as arthritis or a cartilage tear. Both conditions can cause the knee to produce too much fluid. This fluid tends leak into a sack (cyst) as the back of the knee This diagnosis in the under 45s should only be given with clinical evidence of an intraarticular pathology such as a meniscal tear or in known degenerative joint involvement

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Return to
Posterior
Pathway



Self-management of Bakers Cyst

It is not advisable to aspirate a baker's cyst due to proximity of major vessels

Surgically removing a Baker's cyst is not easy because, unlike other types of cyst, they do not have a lining.

Consider the underlying cause of the cyst in order to address

Messaging for patients

- The knee can produce extra fluid when irritated, a bit like your eye watering. There is a sac like space at the back of the knee where this fluid can sit. This is what we call a Baker's cyst
- It is not harmful.
- Although a Baker cyst may cause swelling and discomfort, treating the underlying problem that is causing it usually provides relief.
- Consider ice packs or non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, to reduce swelling and pain in the affected knee

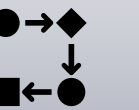
Additional information

- <https://www.nhs.uk/conditions/bakers-cyst/>

Return to start



Return to Main
Pathway



Return to
Posterior
Diagnosis



Return to
Posterior
Pathway



Self-management for Posterior Knee pain

Consider paracetamol and/or topical non-steroidal anti-inflammatory drugs (NSAIDs) ahead of oral NSAIDs (available OTC)

If patient is digitally enabled, prescribe the getUbetter app

Explain that imaging is **NOT** routinely required for knee pain in the absence of mechanical symptoms or red flags.

Messaging for patients

- Having sore knees is common and isn't usually a sign of anything serious
- The pain does not mean you are causing damage to your knee – it has just become more sensitive
- Protecting your knee and avoiding movements and activity can make your knee worse. You may have to go gently to begin with to prevent flaring up your knee pain
- Most acute knee pain will settle down on its own accord within a few days-to-weeks
- If you already have joint pain, being overweight can make your symptoms worse. Losing even a small amount of weight can make a significant difference to knee pain.
- Return if no improvement after 6-8 weeks OR if develop worsening pain or reduced function.

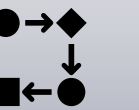
Additional information

- <https://www.versusarthritis.org/about-arthritis/conditions/knee-pain/>
- <https://roh.nhs.uk/services-information/musculoskeletal/royal-orthopaedic-exercise-programme/lower-limb-exercises>
- <https://www.versusarthritis.org/media/21787/kneepain-exercise-sheet.pdf>

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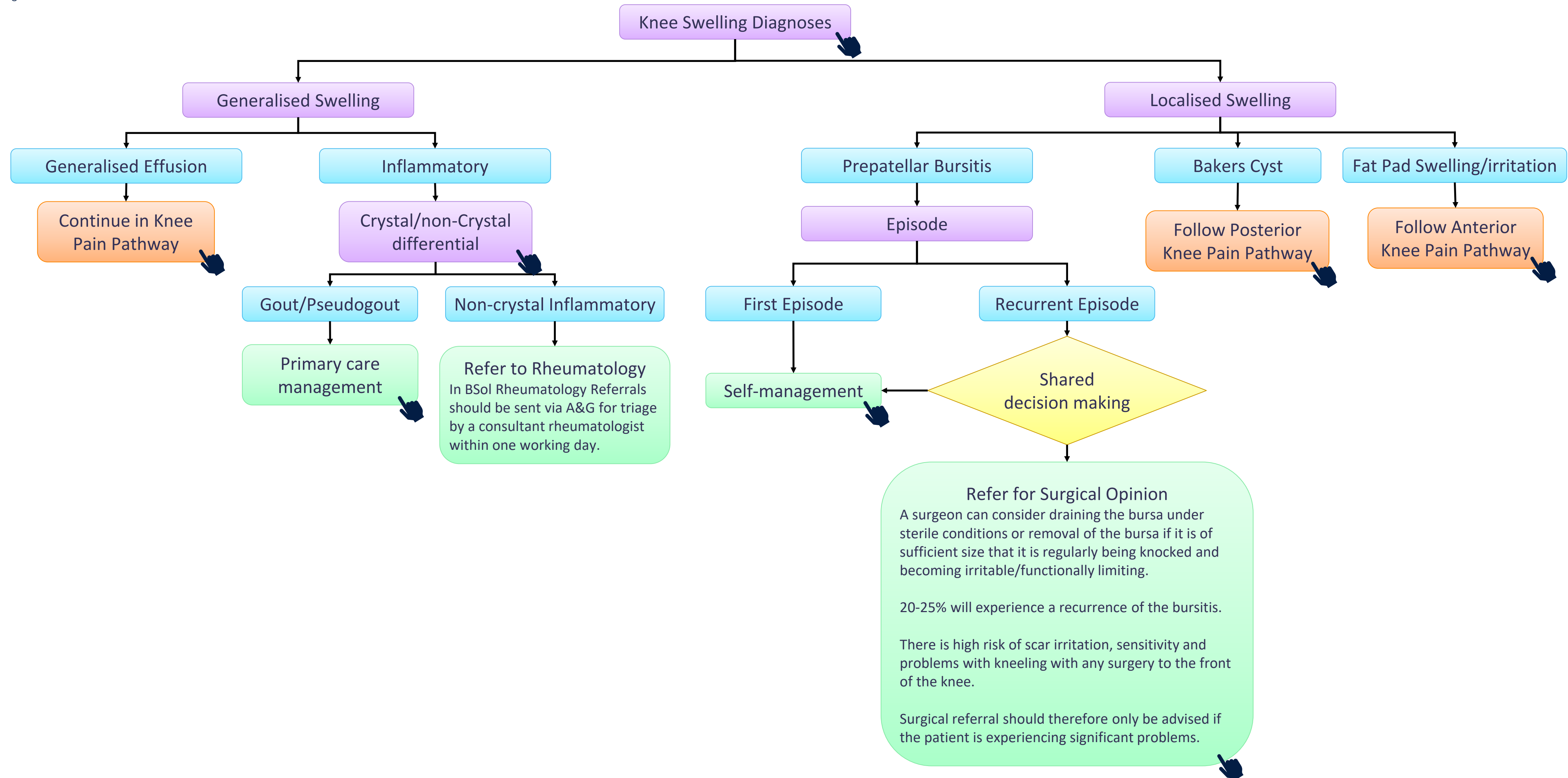


Return to
Posterior
Diagnosis

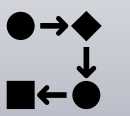


Return to
Posterior
Pathway





Return to start


Return to Main
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Diagnosis of Knee Swelling

Generalised effusion	Inflammatory	Prepatellar bursitis	Fat Pad Impingement	Baker's Cyst
It is important to differentiate extra capsular swelling versus generalised effusion. An effusion is a condition in which excess fluid builds up WITHIN the joint. This may be associated with pain. It is usually caused by an injury or an underlying condition such as arthritis.	Consider if persistent joint swelling > 2 weeks, particularly in presence of other joint swelling synchronously or over past year This includes suspicion of rheumatoid arthritis, reactive arthritis, gout Consider if new joint swelling (isolated or in conjunction with other joints), potentially in presence of uveitis, psoriasis, inflammatory bowel disease or as a reactive arthritis (for example following recent gastroenteritis or sexually acquired infection)	Commonly associated with occupations that involve kneeling, or a fall onto the knee. Symptoms of prepatellar bursitis include; • localised defined swelling, • tenderness, • pain in the front of the knee.	Symptoms may include: • Pain deep to and on either side of the patellar tendon adjacent to the inferior pole of the patella • commonly occurs with the knee at full extension, dynamic extension, or prolonged flexion • pain usually occurs over a prolonged period Risk factors: • May be associated with a previous knee injury, postural hyperextension tendency or may be idiopathic	Discomfort can arise as a result of a Baker's cyst. This cyst is usually the result of a problem with the knee joint, such as arthritis or a cartilage tear. Both conditions can cause the knee to produce too much fluid. This fluid tends leak into a sack (cyst) as the back of the knee This diagnosis in the under 45s should only be given with clinical evidence of an intraarticular pathology such as a meniscal tear or in known degenerative joint involvement

Continue in Knee Pain Pathway

Crystal/non-Crystal differential

Follow Posterior Knee Pain Pathway

Follow Anterior Knee Pain Pathway

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Self-management for Prepatellar bursitis

Advice on simple analgesia and NSAIDS (if able to tolerate, available OTC) - [NICE CKS Guidance](#)

Messaging for patients

- A bursa is a fluid filled sack designed to prevent friction. There are many around the body, but you are not aware of them unless they become irritated and inflamed
- Usually, simple measures to reduce the inflammation and subsequently addressing the cause of inflammation such as prolonged direct compression or overuse will resolve or reduce the swelling
- Ice may be used to reduce swelling. It should be applied to the area for 10 minutes at a time, every few hours, but not directly onto the skin (a thin towel can be placed between the ice and the skin).
- Activity modification will minimise mechanical stress on the inflamed bursa. This involves avoiding activities that worsen symptoms (for example, kneeling) and protecting the area where possible (for example, by using kneepads).
- Most people will respond to conservative treatment.

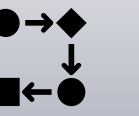
Additional information

- <https://www.nhs.uk/conditions/bursitis/>
- <https://patient.info/bones-joints-muscles/knee-pain-patellofemoral-pain/housemaids-knee-prepatellar-bursitis>

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Surgical Management for Prepatellar bursitis

A surgeon can consider draining the bursa under sterile conditions or removal of the bursa if it is of sufficient size that it is regularly being knocked and becoming irritable/functionally limiting.

20-25% will experience a recurrence of the bursitis.

There is high risk of scar irritation, sensitivity and problems with kneeling with any surgery to the front of the knee.

Surgical referral should therefore only be advised if the patient is experiencing significant problems.

Messaging for patients

- A Knee Consultant will be able to provide further assessment and guide the patients future care
- Keep knee mobile, as pain allows
- Whilst awaiting your appointment please continue with self management

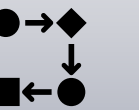
Additional information

- <https://cks.nice.org.uk/topics/pre-patellar-bursitis/management/management/>
- <https://www.nhs.uk/conditions/bursitis/>
- <https://patient.info/bones-joints-muscles/knee-pain-patellofemoral-pain/housemaids-knee-prepatellar-bursitis>

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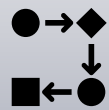
Differential Diagnosis of Inflammatory Knee pain

Pseudogout/Gout	Other inflammatory joint problems can affect one joint or multiple joints (Non-crystal inflammatory arthritis)
Crystal Arthritis (Gout / Pseudogout) is a common cause of single joint inflammation in older patients and it is reasonable to consider management of acute inflammation in primary care as a first step. In older male patients gout is a common cause of inflammatory arthritis. Frequently affected joints include the knee, ankle and big toe Tophi may be present with more established disease Typically the onset of pain in gout is rapid (hours). The assessing clinician may feel it is reasonable to provide treatment for acute gout in patients with a known history of gout who have a history of similar inflammatory episodes. Pseudogout is also a common cause of inflammatory arthritis in older patients with pre-existing osteoarthritis, particularly if X-rays have shown signs of chondrocalcinosis. Pseudogout is often triggered by infection/dehydration and is more common in patients using diuretics. The acute management is the same as for gout.	Features that raise the suspicion of alternative causes of inflammatory arthritis would be 1. Younger patient (<60) 2. Persistent swelling (>2 weeks) 3. Involvement of other joints – either synchronously or over the past year – particularly when accompanied by swelling. 4. History of psoriasis, uveitis, inflammatory bowel disease. 5. Recent gastroenteritis or sexually acquired infection 6. Symptoms suggestive of inflammatory spinal disease or sacroiliitis Early referral to rheumatology for an inflammatory arthritis diagnosis is essential for timely initiation of disease modifying treatment
Primary care management	Refer to Rheumatology In BSol Rheumatology Referrals should be sent via A&G for triage by a consultant rheumatologist within one working day.

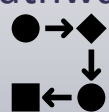
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Primary Care Management of Crystal Arthropathy

Management acutely NSAIDs or colchicine if able to tolerate, prednisolone as an alternative as per [NICE Guidance](#)

Request CRP to confirm an inflammatory response

Do **NOT** perform serum urate acutely; arrange in 2/52 alongside cv risk bloods

Aspiration is not an accurate means of diagnosis within the time frame required for an acute differential diagnosis but can be considered

Gout is rare in premenopausal women and referral to rheumatology would be advised in this group

Messaging for patients

- Crystal arthritis is so called because of small particles in the joint causing irritation
- This can cause significant acute pain that is best treated with rest, ice and elevation and painkillers
- Maintain fluids with regular water and take if medication if prescribed
- Will need GP review following bloods to discuss future prevention and possible medication
- If pain and swelling significantly deteriorates, particularly with a fever please attend the Emergency Department

Additional information

- <https://www.versusarthritis.org/about-arthritis/conditions/gout/>
- <https://patient.info/bones-joints-muscles/calcium-pyrophosphate-deposition-pseudogout>

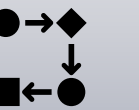
References;

- [The British Society for Rheumatology Guideline for the Management of Gout](#)
- [RCCP Podcast: Gout](#)

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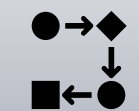
Differential Diagnosis of True Locking

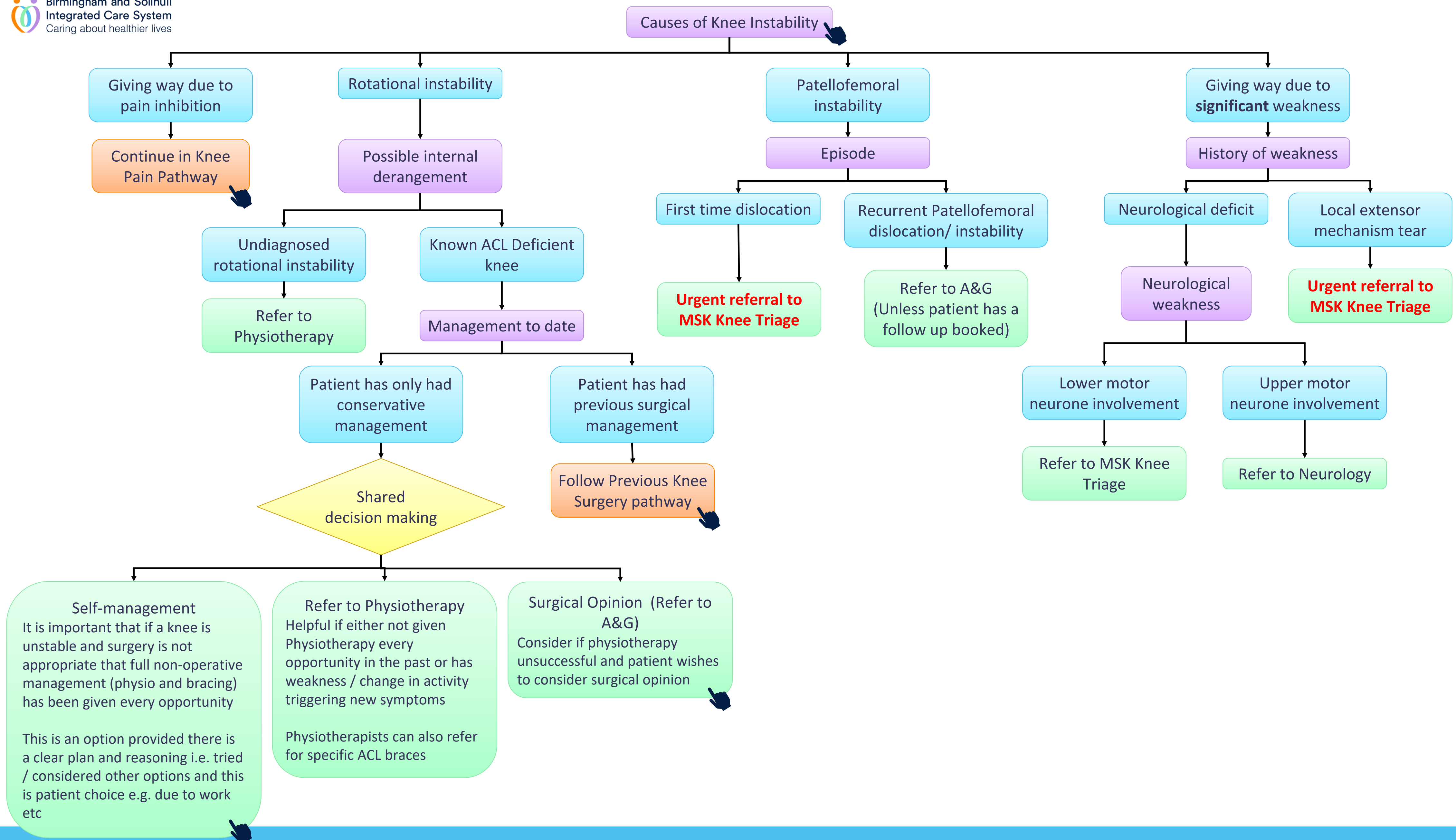
True Locking	Pseudolocking
True locking of the knee is when the knee joint is typically the inability to extend the knee from a flexed position, this is a mechanical block rather than a stiffness or click to release as with Pseudolocking. This can be caused by a loose body in the knee or significant cartilage tears. It can commonly occur after significant trauma or twisting but can be spontaneous. Key Features • The knee becomes intermittently mechanically blocked • Can become unblocked with forced extension or a wiggle/shake of the knee • It is NOT a stiffness that eases with movement or an anterior click If recent X-ray is available, please only request tunnel view only. This view is the most appropriate for identifying intra-condylar loose bodies and defects that can cause locking.	Pseudolocking of the knee is common and is often mistaken for true locking. With Pseudolocking the patient may describe a temporarily stiffness of the knee with difficulty with movement. It may also click, but there is no true mechanical blockage of the joint. It is caused by swelling of the joint capsule or by muscle spasm. Pseudolocking can occur in any joint, but it is most common in the knee.
Refer to MSK Triage and request Xray	Continue in Knee Pain Pathway

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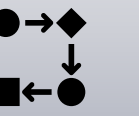


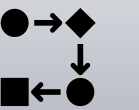


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Differential Diagnosis of Knee instability (The MOST common cause of giving way is due to pain inhibition)

Giving way can be spontaneous or due to pain inhibition	Rotational Instability	Patellofemoral Instability	Giving way due to significant weakness
The MOST common cause of giving way is due to pain inhibition It is usually associated with catches of pain and exacerbated by some secondary muscle deconditioning The cause can be patellofemoral (probably more on slopes, going downstairs) or the knee joint (walking, moving awkwardly)	Occurs when pivoting / turning or uneven ground. Rarely occurs with straight line activities walking, running, stairs. An indicator of ACL rupture and will have a history of significant injury and swelling Likely to more in younger patients before age related wear causes some stiffness and therefore stability	Will be able to identify that the patella moves out of position laterally The patient is likely to have a history of dislocation or subluxation More common in younger patients	Significant weakness would result in an inability to Straight Leg Raise or fully extend the knee actively to a limit of their range Likely to cause giving way when loaded in a flexed position, an inability to step up with the effected leg and difficulty rising from a chair Tends to result in the patient walking in a forced hyperextension of the knee Causes may be neurological or a structural extensor mechanism tear.
Continue in Knee Pain Pathway			



Self-Management for Rotational instability

Messaging for patients

- The anterior cruciate ligament (ACL) provides stability to your knee when you twist or turn. If this has been damaged your knee may give way on uneven ground or if you turn quickly. This can cause swelling and pain in the knee.
- If you have a specific ACL brace please use it when at work /doing activities that are more likely to cause instability.
- The stronger your legs and better your balance, the more likely you are to reduce a significant episode of giving way.
- Straight line exercises are safe and put minimal stress on the knee.
- Use pain and swelling as a guide in terms of which exercise suits you best

Surgical Management for Rotational Instability (Refer to A&G)

Consider if physiotherapy unsuccessful and patient wishes to consider surgical opinion.

Please document in clinical notes section regarding previous management to date and ideally refer back to hospital providing initial diagnosis if local. they will therefore be able to access the medical notes to see whether surgical review is appropriate

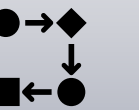
Messaging for patients

- A Knee Consultant will be able to provide further assessment and guide the patients future care

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Previous Surgery pathway

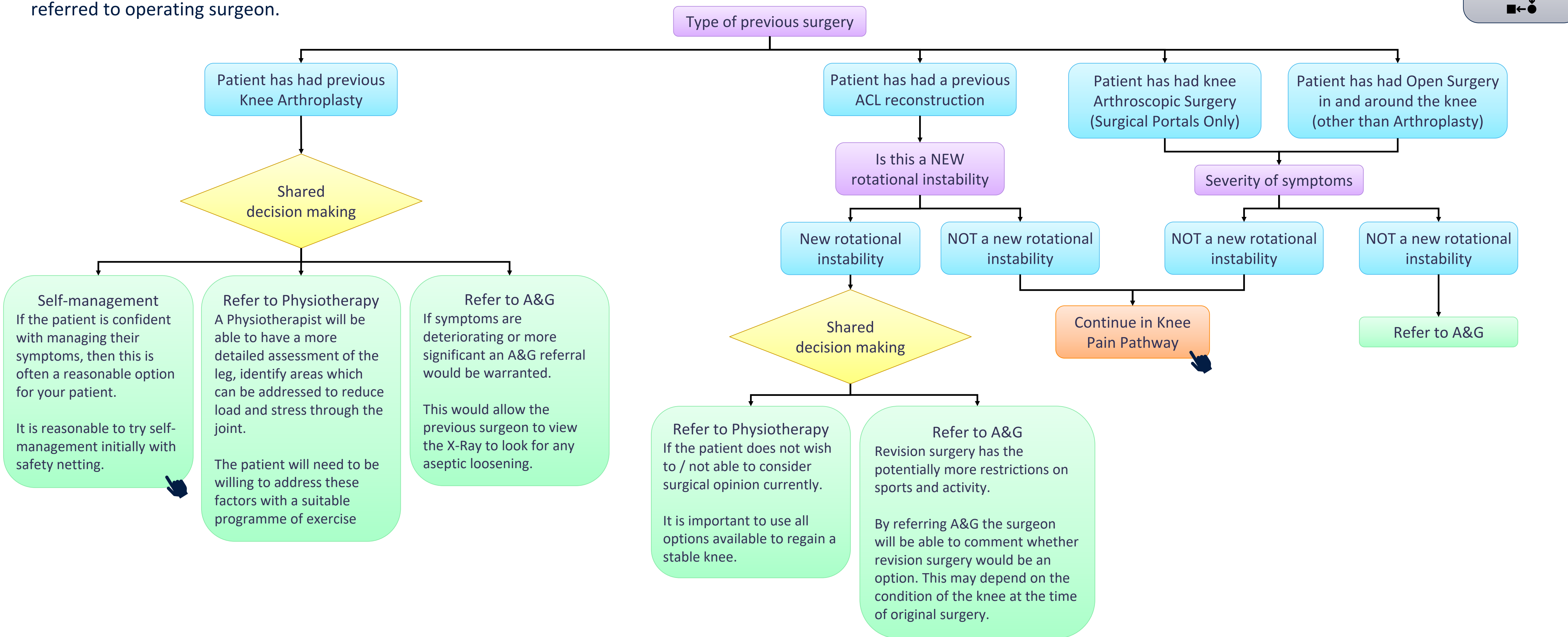
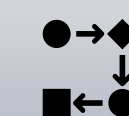
Clear signs of infection or significant trauma should be sent to the emergency department.

Rapid deterioration post operation should be urgently referred to operating surgeon.

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Self-Management for Previous Knee Arthroplasty

Majority of patients may have concomitant MSK pain. It is possible to have aseptic loosening or low-grade infection following arthroplasty. Slow deterioration of pain in the knee joint that has been replaced historically. This could be natural wear within the joint

Symptoms could include;

- Morning stiffness
- increased pain when walking moderate distance.
- Pain can be associated with swelling after activity.
- Onset of a new or different click or a clunk in the knee with weightbearing. (The click or clunk can be associated with pain but not always)
- low grade infection may also occur following a recent concurrent infection such as dental abscess

Consider paracetamol and/or topical non-steroidal anti-inflammatory drugs (NSAIDs) ahead of oral NSAIDs - [NICE guidance](#)

Messaging for patients

- Having a joint replacement in situ can still mean that other tissues in the knee can cause discomfort.
- It is reasonable to manage your symptoms with simple exercises and lifestyle adjustments to see if this helps.
- If you already have joint pain, being overweight can make your symptoms worse. Losing even a small amount of weight can make a significant difference to knee pain.

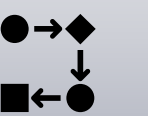
Additional information

- <https://www.versusarthritis.org/about-arthritis/conditions/knee-pain/>
- <https://www.versusarthritis.org/about-arthritis/exercising-with-arthritis/exercises-for-healthy-joints/exercises-for-the-knees/>
- <https://roh.nhs.uk/services-information/musculoskeletal/royal-orthopaedic-exercise-programme/lower-limb-exercises>
- <https://roh.nhs.uk/services-information/therapy/exercises-for-osteoarthritis-of-the-knee>

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