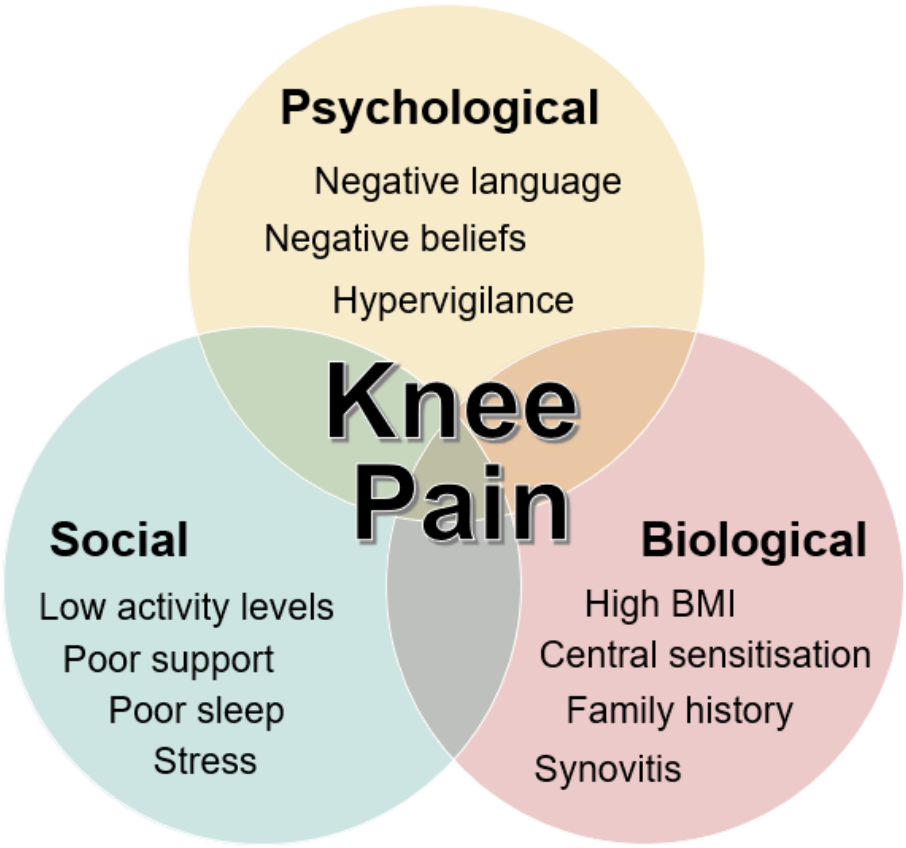
Small Group Education

Nāu te rourou, nāku te rourou ka ora ai te tangata

South Tyneside UK - Presenter's Notes

Persistent pain (Osteoarthritis)
Changing the Narrative

September 2021



[CQE 2021]

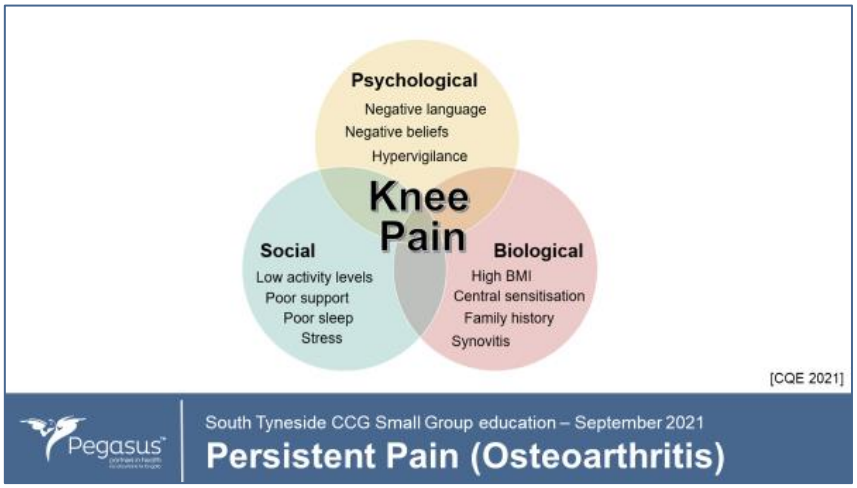
SGL:

- The Presenter's Notes includes prompts on which slides we recommend sharing as part of your eSmall Group meeting when you are using a digital platform for delivery such as Zoom.
- Remember to open your PowerPoint before logging into Zoom if you are facilitating an eSmall Group
- Consider naming yourself with " Name – SG leader" on Zoom
- If you are holding an in-person meeting, please disregard these prompts, but consider the best time to move to the next slide

Please note – these notes are usually printed double sided as a booklet. Once printed the reference page is on the left of the page being presented i.e. page 2 contains extra reference information for page 3. The numbers reference extra information that you choose to include or not depending on your meeting and group's interest, the book icon refers to the prereading and the hand icon the handout.

Slide 1

Slide share



[CQE 2021]

Slide 1

SGL: Please share slide and explain as below

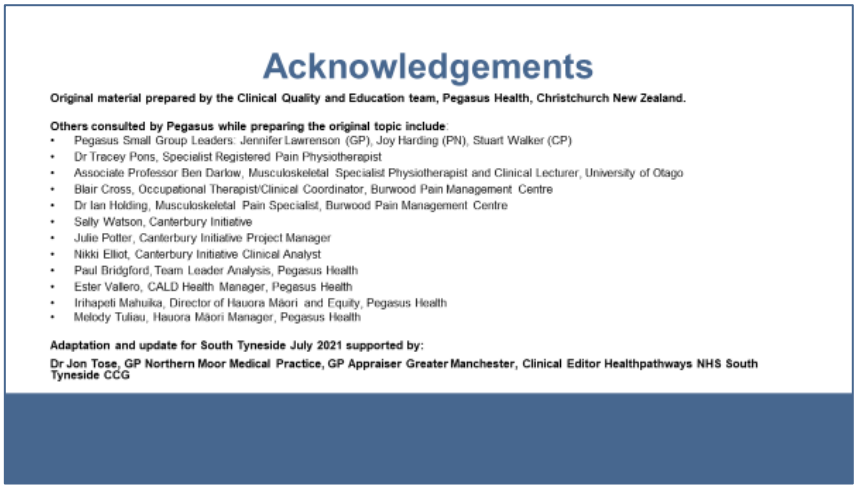
The cover slide depicts the inter-relationship of dimensions that affect wellbeing in relation to knee pain, it is derived from the biopsychosocial model that has become increasingly understood and accepted.

Pain models and analogies will be discussed further during the meeting using osteoarthritis (OA) of the knee as an example of patients experiencing persistent pain.

Recent years have seen the understanding and management of osteoarthritis (OA move away from historical beliefs around a localised tissue-based focus to a 'whole of person' approach. Recognising osteoarthritis as a multidimensional problem, provides a wider range of effective intervention strategies.

Slide 2

Slide share



Slide 2

Thanks to the people who have contributed to the development of this Small Group round.

The topic was orginally developed by the Pegasus Clinical Quality and Education team in Christchurch New Zealand in May 2021, and has subsequently been adapted July 2021 with support from Dr Jon Tose, Clinical Editor HealthPathways NHS South Tyneside Clinical Commissioning Group.

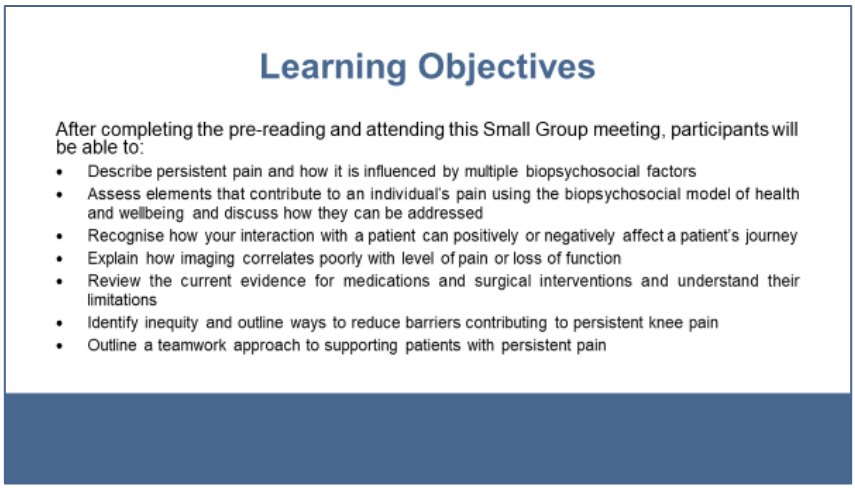
Overall Learning Goal (SGL rationale for choosing this topic)

Pain is an output from the brain secondary to interpretation of sensory input. Persistent pain is thus influenced by context: multiple biopsychosocial factors affect immune and stress responses altering the experience of pain. Osteoarthritis (OA) is an example of persistent pain that is affected by the 'whole person condition'. Consideration of factors that modulate inflammatory processes, tissue sensitivities and behavioural responses is necessary [Berenbaum 2013, Caneiro 2020].

Management of OA can be improved by holistic collaboration with the patient and the primary health care team. This includes minimising iatrogenic harm by avoiding the use of words that have negative connotations and by prudent use of imaging to avoid sending patients on a negative trajectory e.g. changing the narrative from joint 'wear and tear' to 'wear and repair', pre-emphasising normal age related radiological changes.

Slide 3

Slide share



Slide 3

SGL: Please continue to share slide and give your group time to read through the Learning Objectives.

The International Association for the Study of Pain define pain as: "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage" [IASP 2020, Raja 2020].

Persistent (or chronic) pain is that which persists beyond the expected time of healing and is ongoing lasting ≥3 months [Smith 2019].

South Tyneside Healthpathways use the NICE description – *'chronic primary pain as that where there is no clear underlying condition, or the pain or its impact are out of proportion to any observable injury or disease.'*

📖 **Pre-reading P6**

Persistent pain is common in osteoarthritis, and the knee is used in this Small Group topic as an example of managing persistent pain.
Evidence suggests we need to change our approach to assessing and managing osteoarthritis (OA), to:

- Change the message (that we give to patients)
- Change the treatment focus (from the tissues to all biopsychosocial factors)
- Change the ownership (from the Healthcare Professional (HCP) to patient)

[Caneiro 2020]

Good evidence exists for interventions to manage pain and disability related to knee OA.

NICE guidance, locally commissioned services such as Community Physiotherapy and ESCAPE Pain, and the South Tyneside Community Chronic Pain HealthPathway recognise that education and exercise are key management strategies.

We will discuss these services and other strategies through the meeting. But first let's consider what influences persistent pain…

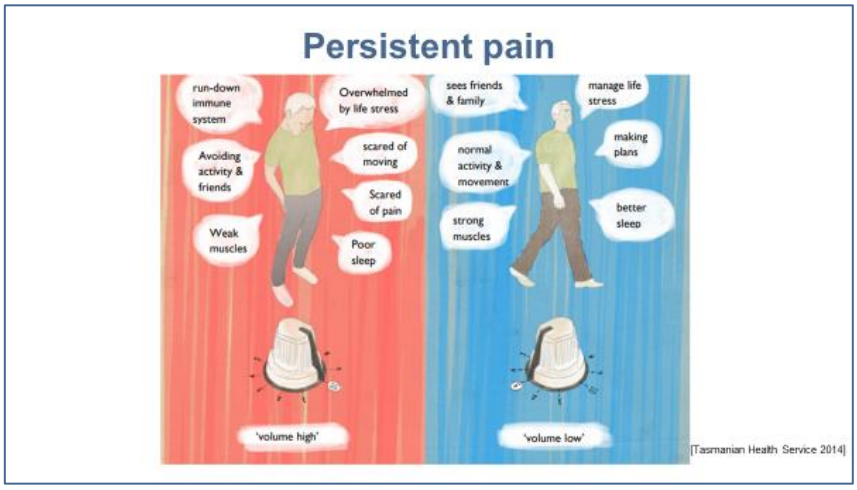
📖 **P3-4 for statistics on prevalence and disparities**

1. Some factors act to sensitise us to pain while others allow us to desensitise and adapt to pain experienced, without any change in the 'damaged' structures.
   "As long as you aren't dead you can adapt" [Lehman 2017].

2. Characteristics such as lower socioeconomic status can result in earlier onset of disability as well as shorter life expectancy. Multiple factors affect access to healthcare and for people who are working attending exercise or pain management classes during work hours may not be possible. Those in lower paid jobs with less employment security are even less likely to be able to take time away from work, compounding access and equity issues [Marmot 2015].

Slide 4

Slide share



[Tasmanian Health Service 2014]

Slide 4

SGL: Please share slide 4 - 5

Slide 4 represents how a volume analogy can be used to discuss factors that can positively or negatively influence pain, especially persistent pain.❶ In the red zone are examples of exacerbating characteristics, ramping up pain volume, whilst in the blue zone are elements that can help reduce experienced pain.

Exploring the different influencing factors for an individual can help guide effective holistic management. Case studies will be used through the meeting to discuss this further.

Nationally a third of women and almost a quarter of men between 45 and 64 years of age have sought treatment for osteoarthritis:

- This rises to almost half of people aged >75 years [Arthritis Research UK 2013]
- About 18% of the UK population aged >45 years have sought treatment for osteoarthritis of the knee [Arthritis Research UK 2013]

These statistics demonstrate that symptomatic osteoarthitis is more common in older people, but that many who suffer are of working age. This needs to be considered to ensure equity of access to pain management strategies. ❷

So let's look at factors that are important in addressing the well being of those with persistent pain.....

Slide 5

Slide share

[Adapted from NHS Personalised Care Model - CQE 2021]

Slide 5

The **cover** slide for this topic is an interpretation of the biopsychosocial model of health and well being in relation to knee pain. It showed the three key elements of the biopsychosocial approach that affect health and wellbeing and their interdependence:

- Biological e.g, addressing confounding factors such as high BMI and nutrition
- Psychological e.g., addressing patient beliefs
- Social e.g., considering supports

This slide shows us the 6 interdependent components of personalised care:

- Shared decision making
- Enabling choice
- Health coaching & supported self-management
- Social prescribing
- Personalised care & support planning
- Personal health budgets & integrated personal growth

Personalised care is part of the NHS Long Term Plan. It means people have choice and control over the way their care is planned and delivered. It takes a whole-system approach, integrating services around a person – health, social care, public health and so on.

P2 for Personalised Care Model

? How can we use these models to help in pain management for our patients?

- Consider all aspects in supporting our patients. Each element is dependent on the other elements
- They also remind us to consider context, environment and time [Lewis 2018]:
    - Cultural differences can influence reporting of symptoms, seeking treatment, access and engagement with health care provider (HCP)
    - Rushed consultations and an unwelcoming reception may influence acceptability of primary care
    - Religion and the church may have an important role for some patients [Lewis 2018]

SGL: Please stop slide share

The challenge for the healthcare provider is to draw out the different factors that contribute to the pain experience of the individual in front of them, and work with the patient in how to address them.

1 **The diagnosis of OA can be made clinically** if a person:

- Is over 45 **and**
- Has activity-related joint pain **and**
- Has either no morning joint-related stiffness or morning stiffness that lasts no longer than 30 minutes [NICE 2017]

2 **Red Flags:**

Check for these concerning features suggestive of osteonecrosis, metastatic cancer, septic arthritis, or fracture:

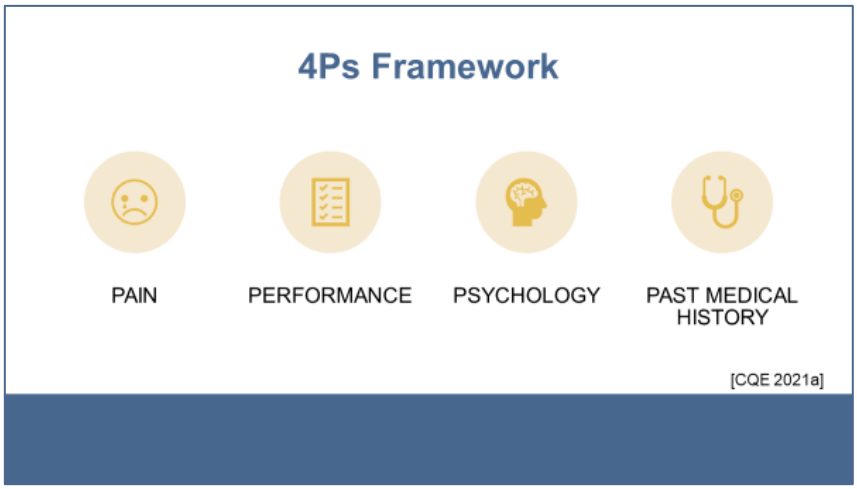
- Sudden-onset acute pain
- Pain following trauma
- Pain not improved by rest
- Pain so severe that weight bearing is not possible [CCHPW 2021]

3 **Radiology**

X-ray is not likely to be helpful and may be psychologically detrimental and contribute to an overall nocebo effect. There is poor correlation between pain and radiological changes.

Imaging is often used in OA as a marker of disease progression and for therapeutic decisions; however abnormal radiological findings are frequently found in pain free adults [Bedson 2008, NICE 2014].

Slide 6



[CQE 2021a]

Slide 6

Case one: 64 year old Leone presents with increasing pain in her right knee on walking, especially going downhill. She requests an X-ray to "check the damage" as she had radiology some years ago and was told she had signs of 'wear and tear' and early osteoarthritis. She was told to come back when the knee had worn out. ❶

? We know we need to take a holistic approach - where would you start?

- Involve her in the consult: Why did she have radiology before? Have her activity levels changed recently? Is she taking any pain relief or other OTC medications?
- She has already been given very negative expectations of osteoarthritis outcome
- Remember to examine – you might find something completely different is going on

One suggested consultation framework for OA is "the four P's", to highlight issues most important to the patient and guide management planning. Pain, performance, psychology and past medical history [BPAC 2017]

Further discussion reveals:

- Intermittent aching pain at rest but stabbing pain on walking, especially stairs and downhill. Stops her getting back to sleep when she wakes worrying about her adult children
- No longer walking with friends due to pain, fear of falling and anxiety of 'doing more damage'. Has gained 5kg, lost confidence and her husband is doing most of the housework
- Non smoker, admits to increased alcohol recently, on ACE inhibitor but BP is up
- Using prn paracetamol and codeine

? How would you discuss the request for another X-ray? There are no red flags ❷

- Very carefully. She anticipates that an X-ray will give an accurate assessment of disease progression
- We need to acknowledge her fear of falling, loss of confidence, anxiety, increased alcohol
- Is there something else going on?
- Would an X-ray change management? ❸

P1 for the '4P' framework and information on poor correlation of radiology and symptoms

? How many in your group would request and X-ray at this stage? Show of hands

Leone is adamant so you request an X-ray and arrange to meet with the result……

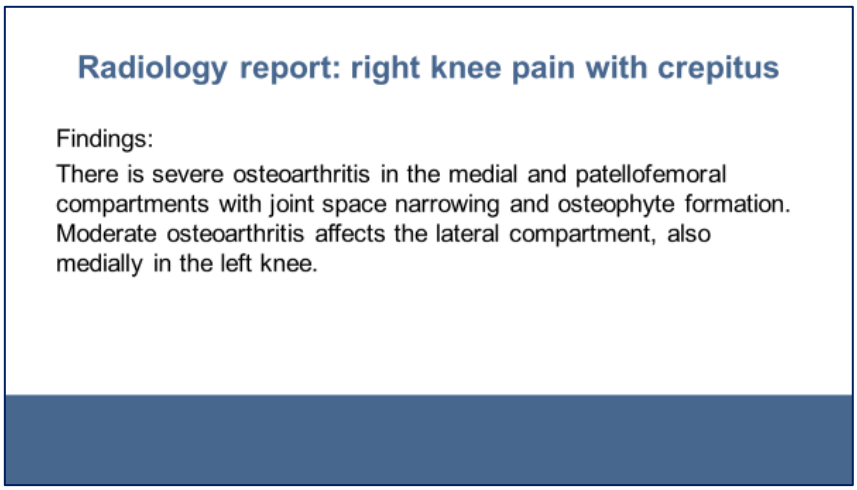
❶ Changes are normal with age, like ‘wrinkles on the inside’ [Butler 2019]

While traditionally thought of as a progressive disease evidence now shows that people with OA knee have diverse trajectories with some people progressing, while others remain stable and pain can improve in 12-30% of people over time [Collins 2014, Rice 2019a].

- A recent systematic review of patients with early OA found that over a six year follow up only 7% had a worsening of their pain whilst the majority remained stable or improved
- Low education, comorbidities, and depression were patient-related predictors of severe/worsening knee OA pain [Previtali 2020]

Treat the patient not the X-ray [Moseley 2017].

Slide 7



Slide 7

SGL: Leone returns with this report. Get your group to read the report from the slide handout

? What might you say?

- X-ray features do not correlate well with pain experienced
- Although there are changes, there is still cartilage and the knee has capacity to repair
  - Moving helps maintain the remaining cartilage
  - Active rehabilitation strategies should be first line [Butler 2019, Lehman 2017]
- OA does not always progress and in fact can improve ('wear and repair') ❶
- What other areas in her life are impacting on her pain and management of it?

? If we think back to the biopsychosocial health model, what other factors are impacting on Leones' wellness and pain? Discuss each of the elements in turn:

- **Biological?**
  - weight gain, sleep disturbance, age, understanding of OA and persistent pain, fears of exercise and other misconceptions
- **Psychological?**
  - Anxiety, fear, low mood, being unable to carry out her duties (affects identity)
- **Social?**
  - Social isolation, relationships
  - Involve family/friends in treatment planning so Leone can feel safe and supported in her care
  - Consider the flow-on effects to the family from the altered wellbeing of one individual

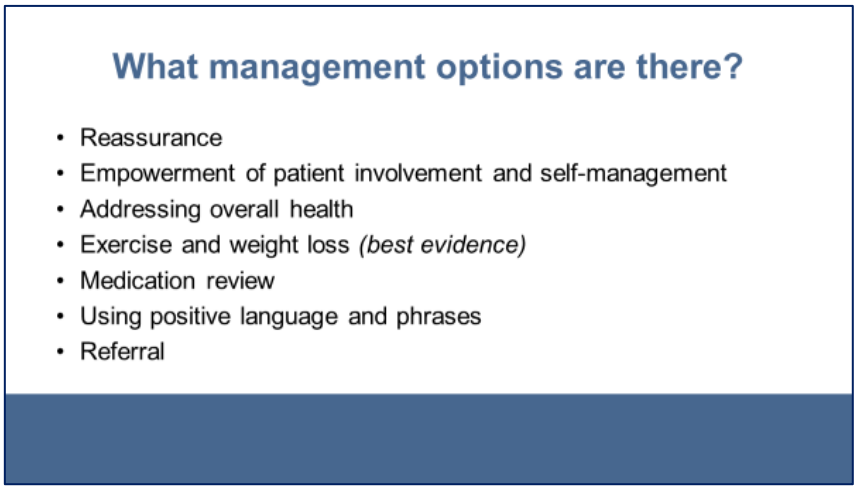
Assessing for all elements that impact on Leones' health and wellbeing, as well as addressing negative beliefs, can provide more options for management strategies and prevent exacerbations and deterioration

1. **Education:**
    - Explore current beliefs about OA (often have mixed messages from family/media/other health care professionals) and correct unhelpful beliefs about OA
    - Provide information to help understanding of pain (why and how we hurt)

2. **Exercise and weight loss** are core treatment strategies in OA guidelines [Bannuru 2019, Geenen 2018, NICE 2017, RACGP 2018] :
    - Exercise is considered a core treatment irrespective of age, comorbidity, pain severity or disability. It offers many benefits including improved pain, function, and mood as well as benefits for co-morbidities and overall general health
    - Weight loss is recommended for people who are overweight or obese. A clinically important improvement in pain and function can occur with moderate weight loss
    - All physical activity is helpful and should be encouraged, it does not necessarily need to be supervised or specific knee exercise

P4-5 For more on education and exercise & P10-11 for resource links

Slide 8



Slide 8

? What management options are there?

- Reassurance: there is no need to jump to surgery
- Empowerment of her involvement and self-management, which may involve:
  - Education and positive affirmation of what she is doing ❶
  - Exploring what activities are meaningful to her
  - Goal setting and graded increases of activity to avoid 'boom & bust'
- Addressing her overall health
  - Which may include psychological support for anxiety, fears, self esteem, alcohol use
- **Explaining the best evidence in management of OA is exercise and weight loss** ❷
  - Exercise has benefits on sleep, mood, weight, blood pressure, social interactions etc. as well as helping the osteoarthritic joint
- A medication review to create the therapeutic window for rehab and meaningful activities
- Using positive language and phrases e.g. [Butler 2019]
  - 'moving is soothing'
  - 'move it and lube it'
  - 'motion is lotion'
  - 'bend and mend'
  - 'hurt ≠ harm'

Remember: the consult itself, terminology used and descriptions given can have significant placebo - or nocebo - effects.

P3 for the power of language and reconceptualising OA, with video link

1

Community Physiotherapy

NHS Physio can be used to support patients, it provides:

- Education and advice
- Movement, tailored exercise and physical activity advice
- Manual therapy is not managed often as many phone consults

Waiting times are variable across the UK, in South Tyneside, the wait time is approximately 3 weeks.

- Some patients will choose to self-fund with a private physiotherapy provider instead
- Many of the consults are done over the phone
- Pre-social distancing 40% patients were seen in person/face to face, this figure is now likely to be lower

ESCAPE-pain - **E**nabling **S**elf-management and **C**oping with **A**rthritic **P**ain using **E**xercise
https://escape-pain.org

ESCAPE-pain is a group rehabilitation programme for people with chronic joint pain that integrates educational self-management and coping strategies with an exercise regimen individualised for each participant. It helps people understand their condition, teaches them simple things they can help themselves with, and takes them through a progressive exercise programme so they learn how to cope with pain better. The programme is delivered to small groups of people twice a week, for six weeks (total 12 classes)

Age Concern Tyneside South

https://ac-ts.org.uk/

If the patient is older than 50 years and wishes to increase their activity levels, advise self-referral by phone or email to Age Concern South Tyneside. The service offers:

- a linkage worker for holistic assessment and support to access a suitable activity.
- exercise classes.
- links with other organisations such as Local Authority Leisure Services, Staying Active, Alzheimer's Association, Marden Road Community Centre (Groundwork), Local Community Associations, Veteran Association, Apna Ghar, Arthritis UK, and Parkinson's UK.

Green Gym

https://www.tcv.org.uk/greengym/

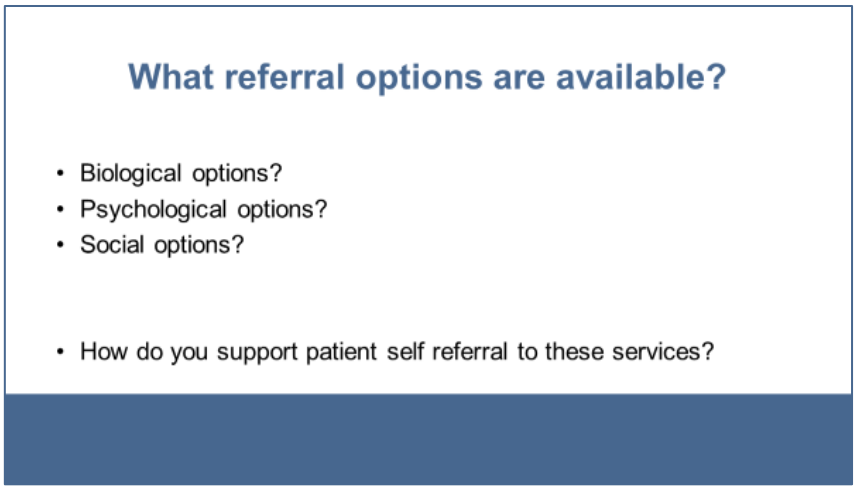
Green Gyms are fun, free outdoor sessions where people are guided in practical activities such as planting trees, sewing meadows and establishing wildlife ponds. The emphasis is on health and fitness.

Lifecycle Mental Health Services

https://www.southtynesidelifecyclementalhealth.nhs.uk/

P5-6 for further information

Slide 9



Slide 9

? What referral options are there?

SGL: Encourage the group to consider biological, psychological and social options

- Community physiotherapy
- Musculoskeletal Clinical Assessment Team Social Prescriber
- ESCAPE Pain
- Tier 2 weight loss programme if available
- Green Gym
- Age Concern Tyneside South
- Lifecycle mental health services

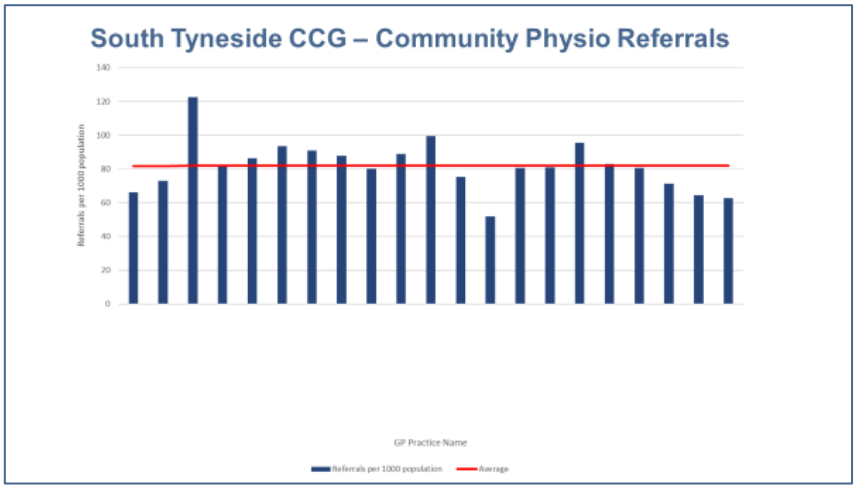
? How might we support Leone to engage with one of these options?

- Explaining clearly what the programme involves is essential for a positive referral process
- In Canterbury NZ, the practice nurse or health coach may follow up referrals by phoning or calling a patient to check in and see how they are going – would an approach like this work in your practice?
- Any other ideas where a team approach may support patient outcomes?

P 5- 6 for more information on referral options

SGL: **Please note all ST practices are included in these upcoming slides, in Small Group we will customise the data to the individuals enrolled in the group making the slide less cluttered**

Slide 10



Slide 10

This slide shows the pattern of referrals from practices in South Tyneside CCG to community physiotherapy

Data is from 1/07/2020 through to 30/06/2021

- Y axis – referrals per 1000 population
- X axis – practice
- Red line indicates the average referral rate in South Tyneside CCG

Overall in South Tyneside 13,184 referrals were made from the registered population of 158,084, this equates to:

- 8% of registered GP population
- Rate of 83 referrals per 1000 population (range 52 to 123 – approx. 2.5 fold difference in referral rate across practices)

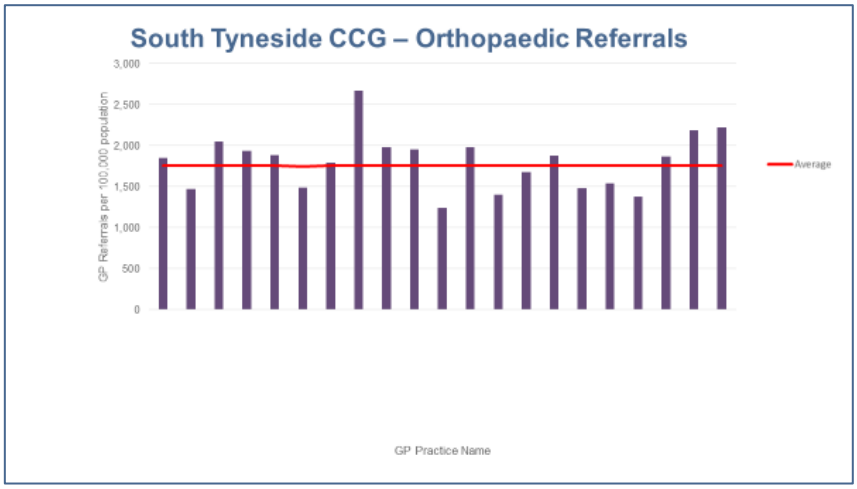
? **What do you think of your data?**

SGL: **Encourage the group to discuss reasons why they might have higher or lower referral rates, and whether they think they are under or over referring e.g. population demographics**

? **What are your experiences with community physiotherapy?**

SGL: Please note all ST practices are included in these upcoming slides, in Small Group we will customise the data to the individuals enrolled in the group making the slide less cluttered

Slide 11



Slide 11

This slide shows the pattern of referrals from practices in South Tyneside CCG to orthopaedics

Data is from 2018 and 2019, based on a South Tyneside population of 157,145
Data is provided by NECS Information Services

- Y axis is GP referrals per 100,000 population
- X axis is GP practice name
- Red line indicates the average for South Tyneside CCG

Overall across South Tyneside PCNs, there were the following referral rates per 100,000 population:

- East 1,697
- South 1,867
- West 1,638
- Rates ranged from 1237 to 2670 across ST CCG (more than 2-fold difference)

? **What do you think of your data?**

SGL: **Encourage the group to discuss reasons why they might have higher or lower referral rates, and whether they think they are under or over referring e.g. population demographics**

? **What are your experiences with orthopaedic referrals?**

CAMs = complementary and alternative medicines

1. **Self management**
   As outlined in the pre reading evidence is lacking from RCTs to allow strong recommendations for many adjunctive therapies. However there is some evidence of benefit including: Yoga, Tai Chi, acupuncture, braces, footwear, heat/cold packs, massage and TENS

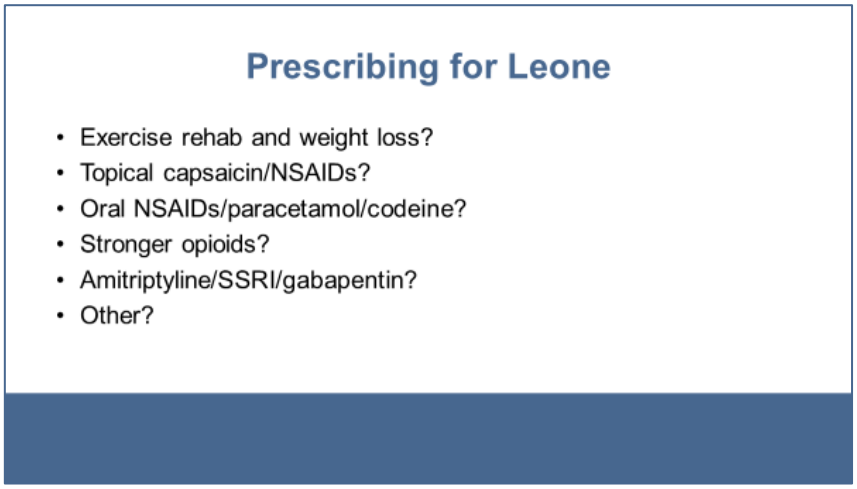
   Other activities that are meaningful to the individual address their holistic needs and can 'turn down the volume' on experienced pain e.g. music, art, pets etc [Lehman 2017, Moseley 2017]

2. The University of Sydney recently published findings from their review of systematic reviews on **paracetamol efficacy**, which gained media attention. They concluded that paracetamol provides a modest effect on pain for knee or hip OA (mean difference on 0-10 pain scale was 0.3 points; 95% CI, – 0.6 to – 0.1 points). However, an effect size of less than 1 is generally not considered clinically significant. These findings are consistent with the 2019 Cochrane review.

📖 **P12 for summary of evidence for paracetamol**

📖 **P10-11 for non-pharmacological interventions**

Slide 12



Slide 12

? What is Leone likely to have tried already? How would you respond to questions about complementary medicines?

- Reinforce positive steps in self management and ownership of her condition ❶
- Glucosamine, chondroitin, fish oil, deer velvet etc. are commonly used
- There is no robust evidence base
  - Positive placebo effects are known to occur from the expectation of benefit [BPAC 2019]; the process of choosing, paying for and taking a treatment may add to this effect
  - Be careful not to undermine this
  - There may yet be good trials that give us unexpected information: there is so much we do not know
  - However, some complementary medicines are unregulated so there is a risk of contamination or lack of active ingredients [Hoban 2020, NHS 2018]
- If she is unsure, consider suggesting a trial period with a symptom diary or Patient Specific Functioning Score (PSFS). If there is no improvement then stop and save the money

P7 for Patient Specific Functioning Score (PSFS)

? What about prescribing for Leone? Would anyone prescribe? If so what?

- **Best evidence is for exercise, rehab and weight loss (when indicated)**
- Topical NSAIDs? Topical capsaicin?
- Paracetamol +/- NSAIDs or codeine? ❷
- Stronger opioids? Amitripyline/SSRI/gabapentin/pregabalin?
- Steroid joint injection? (Discussed more later in case 2)

There is no evidence for oral steroids in the management of OA knee.

P11-13 for the prescribing evidence in OA

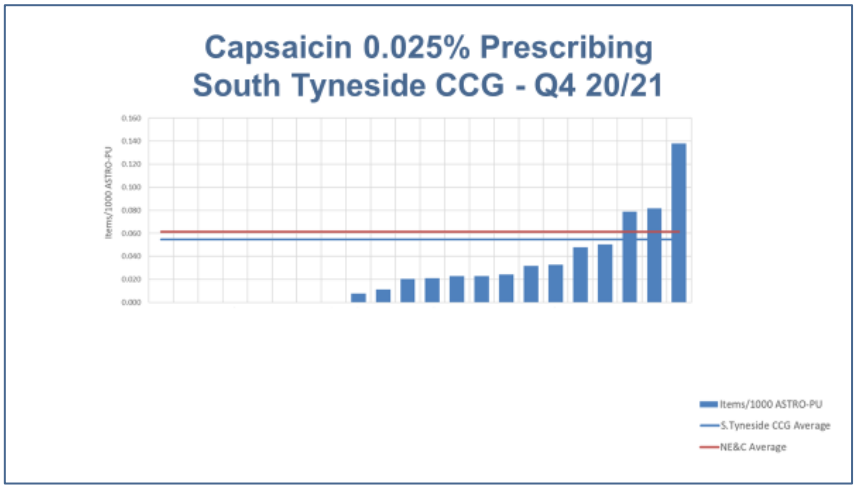
P7-8 for evidence for Complementary medicines

1. ASTRO - PU = age, sex, and temporary resident originated prescribing unit: a weighted capitation formula in determining prescribing budgets. It accounts for evidence that use of medicines is in some degree predictable from the demographic of practice populations [Whynes 1996]

2. **Evidence for capsaicin cream in OA**
    - Topical capsaicin has shown some efficacy in treating pain associated with knee OA in a number of RCTs [Guedes 2018]; although evidence is limited and of poor quality (blinding difficult, limited numbers, and no studies longer than 12 weeks)
    - One meta-analysis of RCTs (any duration, and any OA) concluded that topical NSAIDs and capsaicin may be equally efficacious for pain relief, however, none of the RCTs directly compared the two [Persson 2018]
    - Further research is required to see if capsaicin has more effect in patients with a neuropathic component

Slide 13

Slide share



Slide 13

SGL: Please share slide

This graph shows the prescribing of 0.025% capsaicin cream in quarter 4 2020/21 in South Tyneside CCG practices

- The x axis shows the practices
- The y axis shows the items/1000 ASTRO PU❶
- The blue line is the average for South Tyneside
- The red line is the average for North East and Cumbria

? **Any thoughts on why there is wide variation in prescribing across practices?**

SGL: Stop slide share and ask: Can anyone share experiences of capsaicin use for OA?

? **If you were to recommend capsaicin cream, what would you discuss with Leone? How might you maximise the placebo effect?** ❷

- Low risk since it's topically administered. Does not interact with other medications
- Really important that it is used regularly four times a day to get full effect and the benefit builds over several weeks (due to gradual depletion of substance P)
  - So it will not work properly if used every now and then
  - And do not stop too soon
  - Ask her how she will fit in applying it four times a day, where might she keep it at work etc.
  - Although do not make it too hard: it is not the end of the world if the odd dose is missed
- It is really powerful and can give a transient burning sensation (particularly if too much is used or administered less than 4 times daily)
  - This resolves with regular use
  - But wash hands after applying as really hurts if it gets in the eyes
  - It is derived from the capsicum/chilli family (so has 'natural' origins)

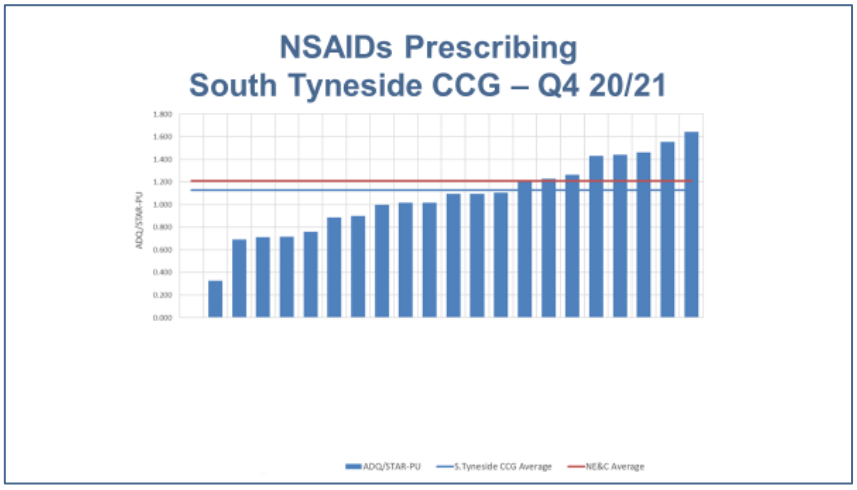
? **How might the team (GP, NP, PN, Clinical Pharmacist) reinforce consistent messages for Leone on capsaicin use?**

❶ ADQ = average daily quantity
STAR-PU = specific therapeutic group age-sex related prescribing units. (Similar to ASTRO-PUs but based on costs within a specific therapeutic area)

🕮 P12 Evidence for NSAIDs

Slide 14

Slide share



Slide 14

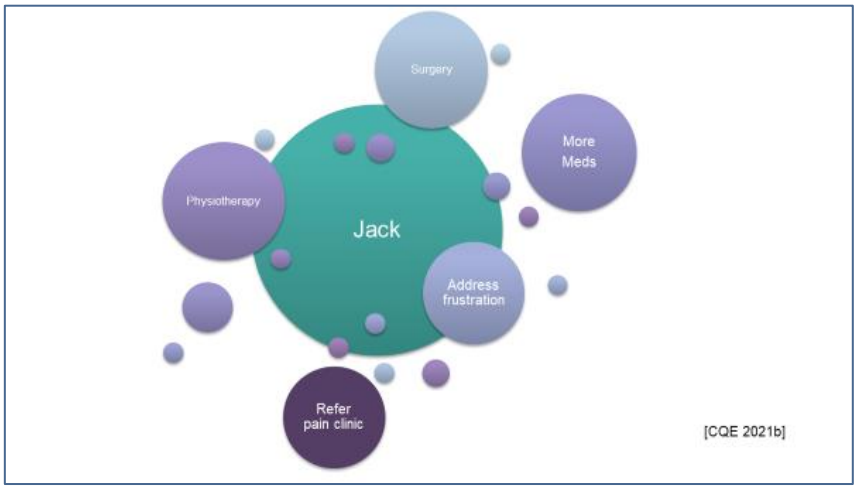
This graph shows the NSAIDs prescribing in quarter 4 2020/21 in South Tyneside CCG practices

- The x axis shows the practices
- The y axis shows the ADQ/STAR PU❶
- The blue line is the average for South Tyneside
- The red line is the average for North East and Cumbria

? There is wide variation across practices, any thoughts on the data?

Case 1 wrap up: In real life Leones' social connections and exercise increased. She joined a walking group, attended the green gym and ESCAPE Pain. Primary care team reinforced positive messaging. She lost weight, knee pain & sleep improved. She uses paracetamol, no codeine

Slide 15



[CQE 2021b]

Slide 15

Case 2 is Jack, a 46yo tradesman. He is a patient you almost never see. He arrives limping heavily and says the pharmacist wouldn't let him buy any more painkillers. He is angry and frustrated, stating he must continue work and so needs a prescription for stronger painkillers and a referral for his knee to be fixed. He says he was told after his rugby injuries that he would get arthritis and need a knee replacement one day and he thinks that time has come.

? How would you approach this consultation?

- Further history & examination: listening to understand rather than listening to respond
- Addressing negative beliefs/previous nocebo effects
- Managing anger & frustration
- Evaluating his fears for his job and what could be addressed at work

SGL: Please give further history:

- Noticed more pain while at work. New sharp stabbing pains make him feel his knee might give way. He feels unsafe on ladders and cannot kneel. He has stopped playing sport as fears knee will get worse, and no longer walks to the pub
- PMH: ACL repair in his 20s & further arthroscopy and debridement. The EMIS record has no data about his height, weight, smoking or alcohol use
- Taking regular paracetamol and ibuprofen + codeine OTC. Recently added in cannabis provided by a mate

? What are the treatment options? Discuss

- Physiotherapy? Goal setting? Social activities? Psychosocial assessment?
- Stronger regular pain relief?
- Joint injections?
- Referral for orthopaedic assessment/knee replacement? *(not recommended)*
- Hydrotherapy, acupuncture

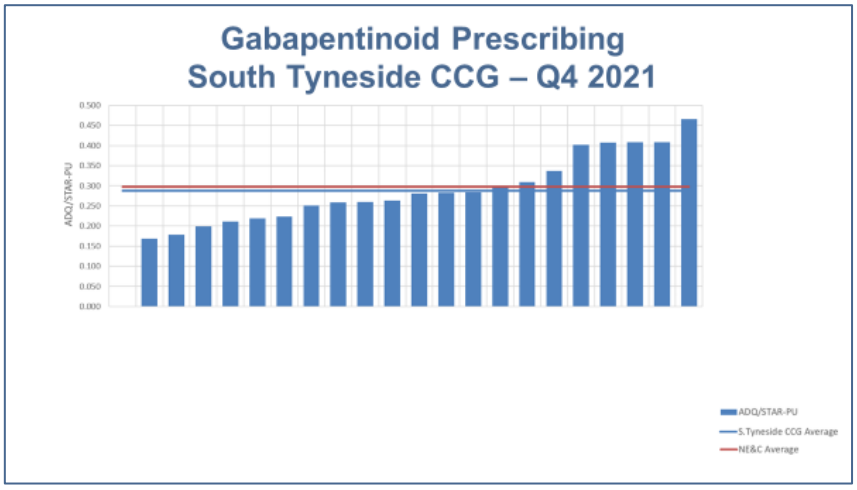
1. NHS Physio can be used to support patients. Waiting times are variable across the UK, in South Tyneside, the wait time is approximately 3 weeks.
    - Some patients will choose to self-fund with a private physiotherapy provider instead
    - Many of the consults are done over the phone
    - Pre-social distancing 40% patients were seen in person/face to face, this figure is now likely to be lower

2. There is insufficient evidence to support the use of gabapentinoids in OA. Adverse effects are common, and they carry significant risk of misuse, diversion, drug-related deaths, suicide and increased risk of death from trauma [Medsafe 2021]. For this reason, some countries (including England) have classified them as controlled drugs [NHS England 2019].

3. ADQ = average daily quantity
   STAR-PU = specific therapeutic group age-sex related prescribing units. (Similar to ASTRO-PUs but based on costs within a specific therapeutic area)

Slide 16

Slide share



Slide 16

SGL: Jack agrees to consider physiotherapy with a medication review

? What would you expect a physiotherapy consult to address? Discuss. ❶

- Education and advice
- Movement, tailored exercise and physical activity advice
- Manual therapy is not often provided as many phone consults

? What about medication options? Discuss

- Topical capsaicin cream?
- NSAIDs oral and topical? Paracetamol?
- Low dose amitriptyline at night?
- Codeine? Tramadol?

? What about gabapentinoids? Do they have a place in the management of OA?

- There is no evidence to support their use in OA
- They carry significant risk of harms ❷
- In patients with other co-morbidities they may possibly have a place
  - Consider low dose, using the placebo effect and involving the patient in titrating dose

SGL: Share slide

This graph shows the prescribing of gabapentinoids in quarter 4 2020/21 in South Tyneside CCG practices

- The x axis shows the practices
- The y axis shows the ADQ/STAR PU ❸
- The blue line is the average for South Tyneside
- The red line is the average for North East and Cumbria

? There is wide variation across practices, any thoughts on why?

🕮 P11-13 for summary of pharmaceutical evidence

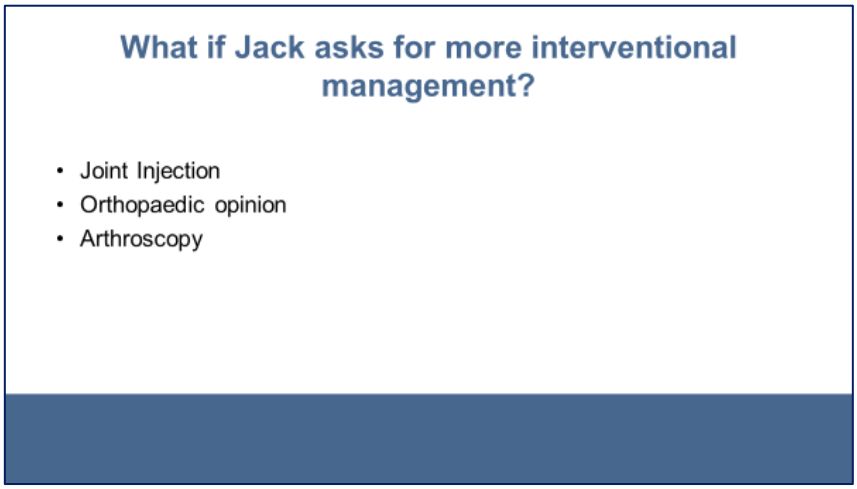
1. **Arthroscopic knee surgery** for degenerative knee disease is the most common orthopaedic procedure in countries with available data. Globally more than two million procedures per year (in those with degenerative disease only)
    - It is not recommended in osteoarthritis
    - Meniscal tears, mechanical symptoms and sudden onset of pain respond positively to arthroscopy with marked improvements often experienced
    - These may be attributed to the procedure but in fact may be secondary to the natural course of the disease, co-interventions or placebo effects [Siemieniuk 2017]

2. It may depend on whether he is using cannabidiol (CBD) or tetrahydrocannabinol (THC)
    - THC has euphoric as well as medicinal effects and may show in the urine days to weeks after use, depending on duration and intensity of use [Marillier 2019]
    - CBD has no euphoric effects and is not tested for [Moore 2019]

3. Management of osteoarthritis flares:
    - Short term topical or oral NSAIDs
    - While evidence from clinical trials is lacking, non-pharmacological interventions offer benefit for some individuals and a trial is recommended by several guidelines. These include: ice or heat packs, walking sticks, knee braces, supportive footwear, acupuncture, manual therapy and TENS
    - A period of relative rest may be of benefit (e.g. moving from land based to pool based exercise, or from walking to cycling) followed by a graded return to usual activity
    - Utilise self care strategies: eg understanding about pain, learning you can be sore but safe as well as connecting with family or other meaningful activity
    - Planned review

P4-5 for self management strategies, P6 flare management, and P10 resource links

Slide 17



Slide 17

? Who would do a joint injection or refer for arthroscopy/orthopaedic assessment? ❶

- There may be high expectations of intervention/surgery due to
  - having tried less invasive management already
  - having high levels of frustration with pain and function loss
- Regular steroid joint injections do not improve outcomes in OA [Bannuru 2019]
  - And are painful [Zhang 2020]

P8-10 for discussion on surgical intervention

? Would you discuss his medicinal cannabis use? ❷

- He has been clear that keeping his job is essential to him
- Many employers have a legal requirement to do random drug screens for safety

? How do you counter negative push back from patients on exercise flaring pain? ❸

Reassure patients that flare ups are normal and will settle again with correct management.

- Pain ≠ harm
- Balance function and pain relief - support pain with using pharmacological NSAIDs (topical or oral) and non-pharmacological options (ice, knee brace, footwear etc)
- Relative rest/off loading with graded return
- Connecting with family and other meaningful activities
- Time frame with planned review

Use flare ups as an opportunity to coach patients and reinforce the key messages in managing OA [Caneiro 2020]

? How might you change your approach if Jack was:

- Deaf?
- Homeless?
- Had a learning disability?
- Poor English?

Case 2 wrap up: You agree a medication plan to create a therapeutic window. Jack sees a physiotherapist who teaches strength and balance drills. You support him organising workplace interventions, educate about flare management and plan a review

❶ Options for making the cup bigger

Many things that help reduce pain also help to increase the size of the cup. These include general exercise and physical activity, resuming hobbies and meaningful activities, working with a counsellor on stress management, good sleep hygiene, improving diet etc. In fact almost anything that increases well being - including focusing on success [Lehman 2017].

Anxiety, depression, catastrophising, beliefs of poor disease outcome - can all have a negative impact on the experience of pain [Rice 2019a]. In contrast positive self-efficacy, thoughts, experiences and safe environments can reduce the experience of pain [Degerstedt 2020, Moseley 2017, Wallis 2019].

📖 **P8 The Impact of Psychology on Pain**

P3-5 Reconceptualising OA, education and exercise

❷ The nocebo effect

This can be minimised by asking a patient about their understanding and expectation of their condition and the treatment options, as well as discussing the potential adverse effects up front [BPAC 2019].

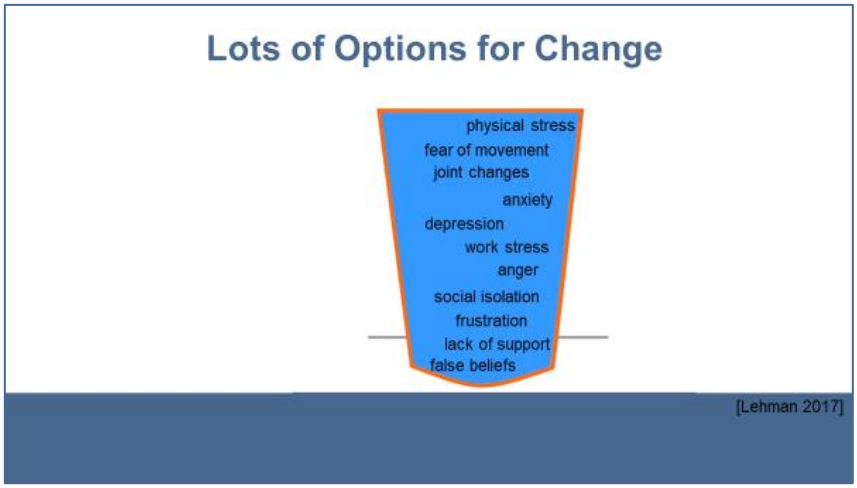
- How you frame the potential risk of adverse effects (e.g. a pain flare) with the treatment (exercise) benefits is a way to minimise the nocebo effect.
- Asking a patient what they think is causing their pain (e.g. the exercise is wearing my joint out), and how they expect the treatment to work can also help
- Emphasising all the other benefits of exercise is also positively reinforcing

📖 **P8 for placebo and nocebo**

Slide 18

1st click blank
2nd animation

Slide share



[Lehman 2017]

Slide 18

Another analogy to describe pain is **the overflowing cup**. This analogy uses the same considerations as the pain models we discussed earlier (psychological – spiritual/emotional, social, physical).

SGL: Please share slide and play animation

Persistent pain is often less about tissue factors and more about other factors or stressors acting to sensitise the nervous system. Stressors will vary from person to person and over time; they can act to overflow a person's cup leading to more pain experienced [Lehman 2017].

? How might you address the negative factors in the cup?

Considerations might include:

- Tissue injury: radiological joint changes are not concordant with pain experienced
- **Exercise is key** to address physical habits or impairment e.g. wasted quadriceps
  - It promotes optimal joint nutrition, muscle strength, flexibility and tolerance
  - A good connection with the person prescribing the exercise is important: try a different therapist or exercise approach if necessary
  - Take it slowly and build up exercise over time. A physiotherapist or exercise specialist can help make a tailored programme and ensure avoidance of a "boom and bust" approach [Pons 2020]
- Education around negative beliefs e.g. "bone on bone", OA is "too severe" for rehab
- Increasing meaningful activities e.g. gardening group, hill walking, yoga, dance etc.
- Changing lifestyle factors e.g. poor sleep, diet,
- Alter maladaptive coping strategies such as avoiding exercise, cannabis use etc.
- Considering emotional/psychological factors: the fear of pain, losing hobbies, reduction in social contacts, increased anxiety, job insecurity etc.

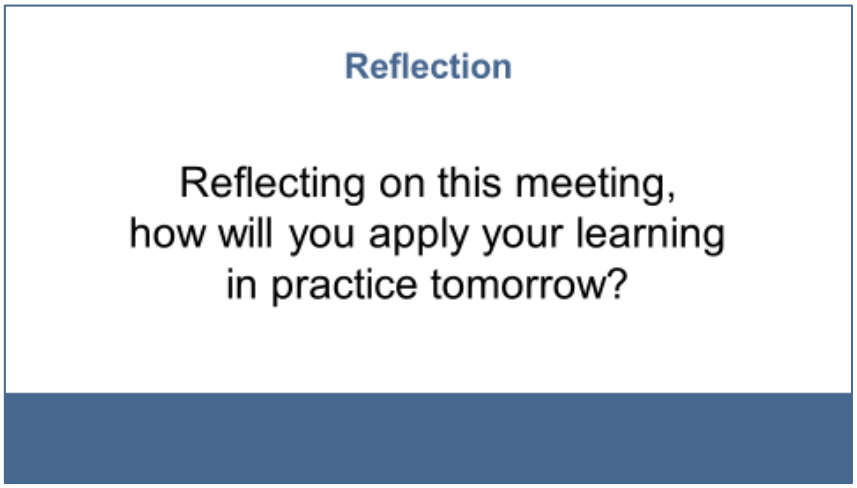
SGL: Stop slide share (or earlier if preferred)

Treatment options reduce the stressors in the cup and also make the cup bigger: building up tolerance or the threshold for pain perception by increasing understanding and positive interventions [Lehman 2017]. ❶

Below are some ideas on how the learnings from this topic might be applied:

- Ask patients about their understanding of what is causing their pain
- Encourage exercise as it is a key evidenced based intervention
- Positive affirmation of what the patient is doing
- Link exercise with the persons 'meaningful activity' to help with adherence and connection if group based
- Re-frame a meaningful activity e.g. taking the dog for a walk to the park as helping to improve the physical but also social and psychological aspects of health
- Think about the language being used to maximise effects e.g. 'capsaicin cream is powerful/strong, you must take care using it…
- Give a time frame for management strategies and organise review
- Emphasise the patients ability to manage it themselves and take control. Give the ownership back to the patient
- Remember to use ESCAPE pain and community physiotherapy
- Work as a practice team (GPs, Nurses, Nurse practitioners, Pharmacists, Health Coaches) to support patients to get consistent messages and support for managing chronic pain

Slide 19



Slide 19

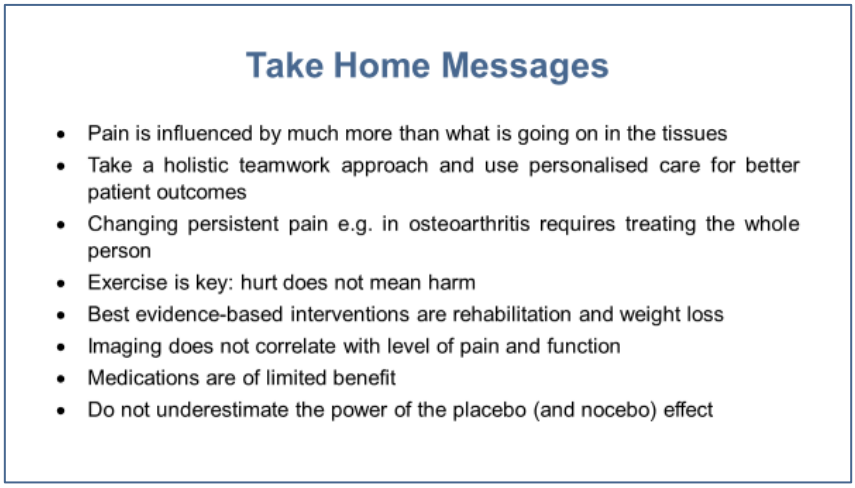
SGL: Read the question and encourage your group to raise points

? **Reflecting on the meeting, how might you apply the learning to your practice tomorrow?** ❶

SGL: Please share next slide of Take Home Messages and then continue on to the QR slide

Slide 20

Slide share



Slide 20

- Pain is influenced by much more than what is going on in the tissues
- Taking a holistic approach and use personalised care for better patient outcomes
  - Considering the biological, psychological and social aspects

- Consider how you can work as a team to help patients with OA and persistent pain
  - As you would for patients with other chronic conditions like diabetes and asthma

- Changing persistent pain e.g. in osteoarthritis requires treating the whole person
  - Identify and address biopsychosocial factors
  - A team approach can help with this

- Exercise is key: Hurt does not mean harm

- Best evidence-based interventions are rehabilitation and weight loss

- Imaging does not correlate with level of pain and function

- Medications are of limited benefit in persistent pain
  - Helpful for acute flare ups and creating a therapeutic window for active rehabilitation
  - Avoid climbing the analgesic polypharmacy ladder
  - Don’t prescribe for distress

- Do not underestimate the power of the placebo (and nocebo) effect
  - Using terms such as ‘wear and tear’ in osteoarthritis is inaccurate and unhelpful and can contribute to negative outcomes
  - Try to use positive terminology instead

Thank you for participating in this meeting. We will now have some Q&A/discussion. **Please remember to encourage your group to complete an evaluation form which can be done by scanning the QR code on the next slide.**

References

- Arthritis Research UK. Osteoarthritis - Clinical Knowledge Summary. 2013 [July]; Available from: https://www.nice.org.uk/cks-uk-only.
- Bannuru RR, Osani MC, Vaysbrot EE, et al. OARSI guidelines for the non-surgical management of knee, hip, and polyarticular osteoarthritis. Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society. 2019;27(11):1578-89. Epub 2019/07/07.
- Berenbaum F. Osteoarthritis as an inflammatory disease (osteoarthritis is not osteoarthrosis!). Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society. 2013;21(1):16-21. Epub 2012/12/01.
- BPAC. Managing pain in osteoarthritis: focus on the person. Best Practice journal. 2017.
- BPAC. The nocebo effect: What it is, why it is important and how can it be reduced? BPAC, August. 2019; Available from: https://bpac.org.nz/2019/nocebo.aspx.
- Butler D. OA Wear & Repair: an Osteoarthritis knee story using healthy linguistics. 2019 [accessed on 16.12.2020]; Available from: https://www.youtube.com/watch?v=sUANsPdkkEU
- Caneiro J, O'Sullivan PB, Roos EM, et al. Three steps to changing the narrative about knee osteoarthritis care: a call to action. 2020;54(5):256-8.
- CCHPW. Osteoarthritis. 2021.
- Collins JE, Katz JN, Dervan EE, et al. Trajectories and risk profiles of pain in persons with radiographic, symptomatic knee osteoarthritis: data from the osteoarthritis initiative. Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society. 2014;22(5):622-30. Epub 2014/03/26.
- CQE. Reframing persistent pain using the Hauora Māori Health approach. 2021.
- CQE. 4P image. 2021a.
- CQE. Persistent pain treatment strategies. 2021b.
- Degerstedt Å, Alinaghizadeh H, Thorstensson CA, et al. High self-efficacy - a predictor of reduced pain and higher levels of physical activity among patients with osteoarthritis: an observational study. BMC musculoskeletal disorders. 2020;21(1):380-.
- Geenen R, Overman CL, Christensen R, et al. EULAR recommendations for the health professional's approach to pain management in inflammatory arthritis and osteoarthritis. Ann Rheum Dis. 2018;77(6):797-807. Epub 2018/05/05.
- Guedes V, Castro JP, Brito I. Topical capsaicin for pain in osteoarthritis: A literature review. Reumatologia clinica. 2018;14(1):40-5. Epub 2016/08/31.
- Hoban CL, Musgrave IF, Byard RW, et al. Combined Liquid Chromatography-mass Spectrometry and Next-generation DNA Sequencing Detection of Adulterants and Contaminants in Analgesic and Anti-inflammatory Herbal Medicines. Pharmaceutical medicine. 2020;34(1):49-61. Epub 2020/02/13.
- IASP. Revised Definition of Pain. 2020 [January 2021]; Available from: https://www.iasp-pain.org/PublicationsNews/NewsDetail.aspx?ItemNumber=10475
- Lehman G. Recovery Strategies Pain Workbook. 2017 [cited accessed on 19.01.21]; Available from: http://www.greglehman.ca/pain-science-workbooks.
- Lewis GN, Upsdell A. Ethnic disparities in attendance at New Zealand's chronic pain services. The New Zealand medical journal. 2018;131(1472):21-8. Epub 2018/03/23.
- Marillier M, Verstraete AG. Driving under the influence of drugs. Wiley Interdisciplinary Reviews: Forensic Science. 2019;1(3).
- Marmot M. The Health Gap: The Challenge of an Unequal World: Bloomsbury Publishing; 2015.
- Medsafe. Spotlight on gabapentin and pregabalin for neuropathic pain. 2021; Available from: https://www.medsafe.govt.nz/profs/PUArticles/March2021/MARCs-remarks-December-2020-meeting.html.
- Moore G. Person Communication: Section Head Toxicology and Workplace Drug Testing Lab, Canterbury DHB. Email. ed2019.
- Moseley L, Butler D. Explain Pain Supercharged The clinician's manual: Noigroup Publications; 2017.
- NHS. Herbal Medicines. 2018 [July]; Available from: https://www.nhs.uk/conditions/herbal-medicines/.
- NHS England. Rescheduling of Gabapentin and Pregabalin as Schedule 3 Controlled Drugs. 2019.
- NICE. Osteoarthritis: care and management. 2017 [ACCESSED ON 26/01/2021]; Available from: https://www.nice.org.uk/guidance/cg177/chapter/1-Recommendations#non-pharmacological-management-2.
- Persson M, Stocks J, Walsh DA, et al. The relative efficacy of topical non-steroidal anti-inflammatory drugs and capsaicin in osteoarthritis: A network meta-analysis of randomised controlled trials. Osteoarthritis and Cartilage. 2018;26.
- Pons T. Mobility Action Plan: Pain Science, Understanding why we hurt. 2020.
- RACGP. Guideline for the management of knee and hip osteoarthritis. 2018.
- Raja SN, Carr DB, Cohen M, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. 2020;161(9):1976-82.
- Rice D, McNair P, Huysmans E, et al. Best Evidence Rehabilitation for Chronic Pain Part 5: Osteoarthritis. Journal of clinical medicine. 2019a;8(11). Epub 2019/10/28.
- Siemieniuk RAC, Harris IA, Agoritsas T, et al. Arthroscopic surgery for degenerative knee

arthritis and meniscal tears: a clinical practice guideline. 2017;357:j1982.
- Smith BH, Fors EA, Korwisi B, et al. The IASP classification of chronic pain for ICD-11: applicability in primary care. Pain. 2019;160(1):83-7. Epub 2018/12/27.
- Tasmanian Health Service. Understanding Persistent Pain booklet. 2014; Available from: https://outpatients.tas.gov.au/__data/assets/pdf_file/0003/172578/CSS_-_Physiotherapy_-_Understanding_Persistent_Pain_Booklet.pdf.
- Wallis JA, Taylor NF, Bunzli S, et al. Experience of living with knee osteoarthritis: a systematic review of qualitative studies. BMJ open. 2019;9(9):e030060-e.
- Whynes DK, Baines DL, Tolley KH. Explaining variations in general practice prescribing costs per ASTRO-PU (age, sex, and temporary resident originated prescribing unit). BMJ (Clinical research ed). 1996;312(7029):488-9. Epub 1996/02/24.
- Zhang Y, Chen X, Tong Y, et al. Development and Prospect of Intra-Articular Injection in the Treatment of Osteoarthritis: A Review. Journal of pain research. 2020;13:1941-55. Epub 2020/08/18.