bpacnz
PRIMARY CARE
UPDATE SERIES

03

OSTEOARTHRITIS

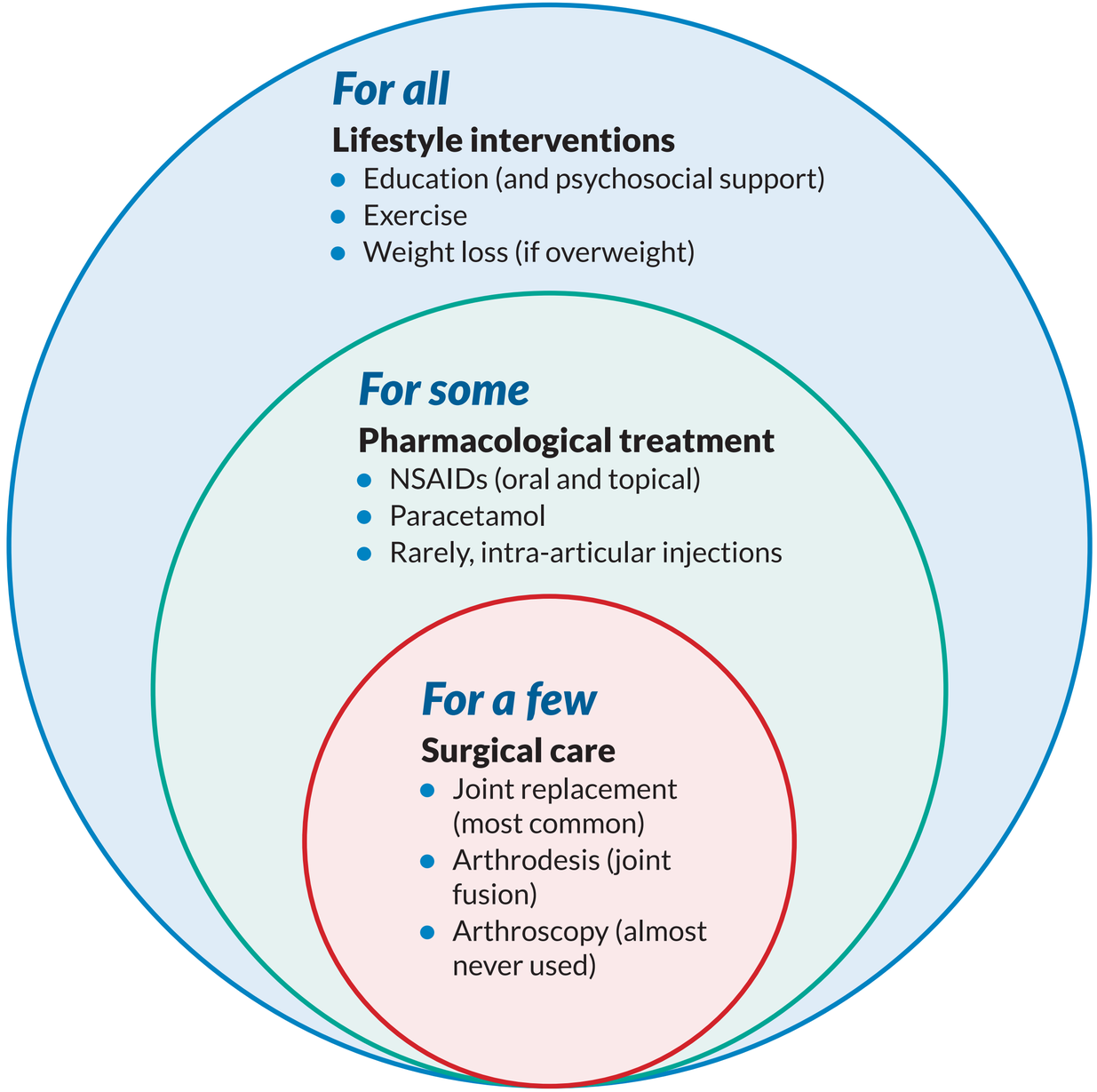
EPISODE 2: NON-OPERATIVE MANAGEMENT OVERVIEW

FEBRUARY 2021
VER 1.1

The OA management hierarchy

Individualisation is key*

– it is a matter of finding which approach works best for the patient in front of you, and for the joint affected



* Ideally, the patient's clinical condition can be maintained or improved with less intense/invasive options, i.e. lifestyle changes; however, more intense/invasive options, i.e. surgery, may inevitably be required for some patients.

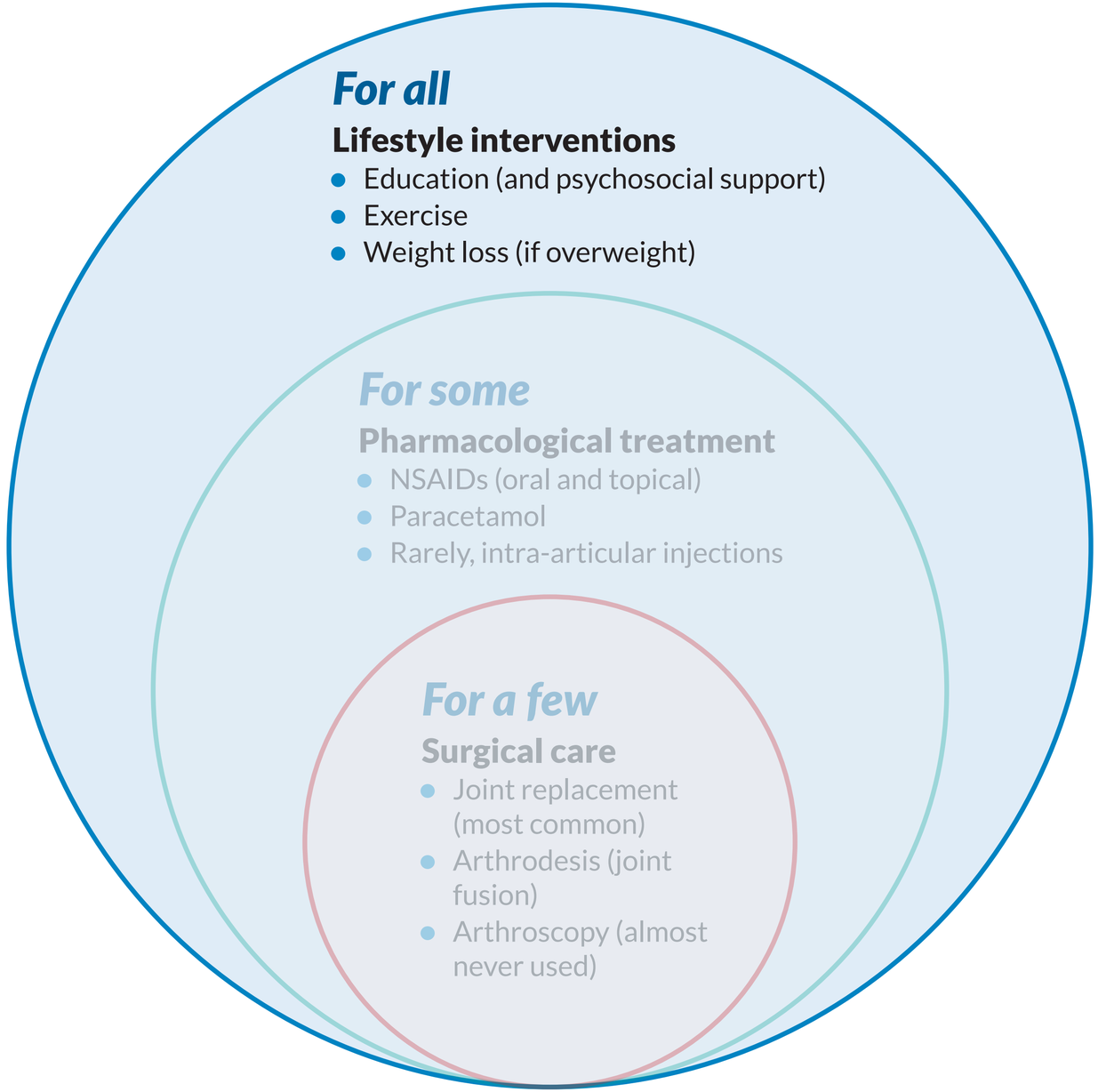
NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis

1. Victorian Model of Care for Osteoarthritis of the Hip and Knee. Victorian musculoskeletal clinical leadership group. 2018. Available at: http://www.acsep.org.au/content/Document/MOVE_MoC_WebVersion_WithHyperlinks.pdf (Accessed Feb, 2021); 2. Kolasinski SL, Neogi T, Hochberg MC, *et al.* Arthritis Care Res. 2020;72:149–62.

The OA management hierarchy

Individualisation is key*

– it is a matter of finding which approach works best for the patient in front of you, and for the joint affected



* Ideally, the patient's clinical condition can be maintained or improved with less intense/invasive options, i.e. lifestyle changes; however, more intense/invasive options, i.e. surgery, may inevitably be required for some patients.

NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis

1. Victorian Model of Care for Osteoarthritis of the Hip and Knee. Victorian musculoskeletal clinical leadership group. 2018. Available at: http://www.acsep.org.au/content/Document/MOVE_MoC_WebVersion_WithHyperlinks.pdf (Accessed Feb, 2021); 2. Kolasinski SL, Neogi T, Hochberg MC, *et al.* Arthritis Care Res. 2020;72:149–62.

Providing education and framing an initial discussion

Ensure **patients understand the cause** of OA, **risk factors**, **treatment options**, their **expected prognosis** and **where to access additional support**

Empower patients to know that **OA is a condition where they have a positive influence over management and the early stages of disease progression**

- This conversation starts with the GP and/or practice nurse, and then ideally involves a physiotherapist (even if there is going to be a long wait for publicly funded access), or other support, e.g. green prescription, mobility support programmes

OA, osteoarthritis

1. Miller KA, Osman F, Manwell LB. Int J Clin Pract. 2020;00:e13627.

Providing education and framing an initial discussion

Reassure patients that **pain does not necessarily equal harm**

- Shift the conversation towards maintaining or improving physical function, rather than just reducing pain
- It is okay to exercise with some discomfort

Establish goals early

- ✔ Identify **current issues**; both in terms of symptoms and how daily functioning/quality of life is impacted
- ✔ Establish the patient's **priorities**, i.e. "what is it that they really want to achieve" and "what are their fears?"
- ✔ Focus on **specific and realistic changes** that can be made regarding modifiable risk factors

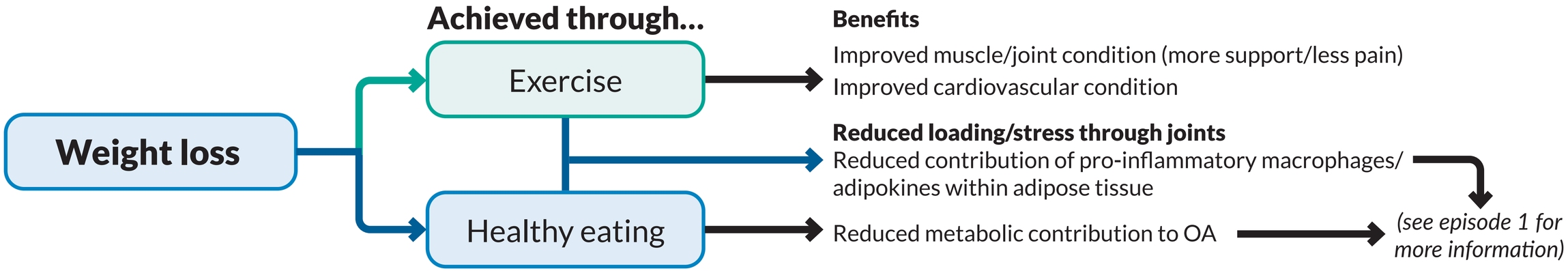
For example:

- **If the patient consumes a lot of fast food:** limit themselves to one fast food meal per week at first, then progressively reduce this further
- **If the patient can only walk to the letterbox:** try do this a couple of times each day, or extend the distance each week (if possible)

OA, osteoarthritis

1. Miller KA, Osman F, Manwell LB. Int J Clin Pract. 2020;00:e13627.

Lifestyle changes – weight loss should be encouraged if applicable



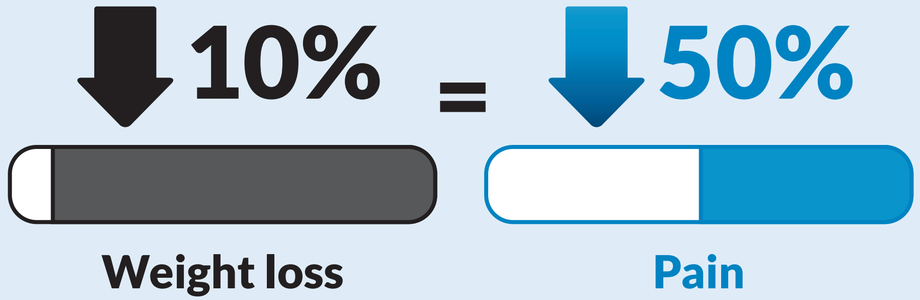
The **more weight that is lost, the greater the improvement** in the pain score

Weight loss also **benefits patients with OA in non-load-bearing joints**, e.g. wrist

No specific diet has been shown to be the best; advise a general "healthy" diet with calorie restriction (if required)

- **Apps may help** (e.g. Easy Diet Diary NZ, FoodSwitch)
- Some people with sub-optimal nutrition may benefit from a discussion with a dietitian*; practice nurses may also help with dietary advice

For example, with **knee OA:**



Irrespective of starting weight after 18 months

Messier SP, Mihalko SL, *et al*. JAMA. 2013 Sep;310:1263–73.

* Subsidised consultations for people who are obese are generally for those with diabetes and uncontrolled hyperglycaemia, however, referral criteria differ between DHBs. OA, osteoarthritis. 1. Abramoff B, Caldera FE. Med Clin N Am. 2020;104:293–311; 2. Thomas S, Browne H, *et al*. Rheumatology. 2018;57:iv61–74.

Lifestyle changes – Exercise is the first-line treatment for osteoarthritis

Exercise has a similar magnitude of benefit on pain and function **compared with NSAIDs** and has **wider benefits**, e.g. improved cardiovascular/mental health and reduced inflammation, with far fewer harms

In addition, exercise helps to **strengthen the muscles supporting joints** and **benefits cartilage health**, improving:

- Stability/falls risk
- Physical function/capacity

All patients should ideally be assessed by a physiotherapist (cost/access permitting) **or engage in some form of structured exercise programme** – surgery should not proceed before this occurs

For a closer look at the specifics of exercise in managing osteoarthritis see Episode 3

NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis.

1. Davis AM, Davis KD, *et al*. Curr Treat Options in Rheum. 2020;6:146–59; 2. Skou ST, Roos EM. BMC Musculoskelet Disord. 2017;18:72.w

Other non-pharmacological approaches

The following interventions are unlikely to improve a patient's clinical status in isolation, but can be considered as **adjuncts** if they help the patient participate more readily in exercise and weight loss strategies (*assuming they are not used in a way that harms the patient*)

- TENS machine
- Acupuncture
- Applying heat or cooling to joints
- Massage therapy

Many additional non-pharmacological treatments are expensive; discussions around OA management should consider the cumulative costs of these approaches

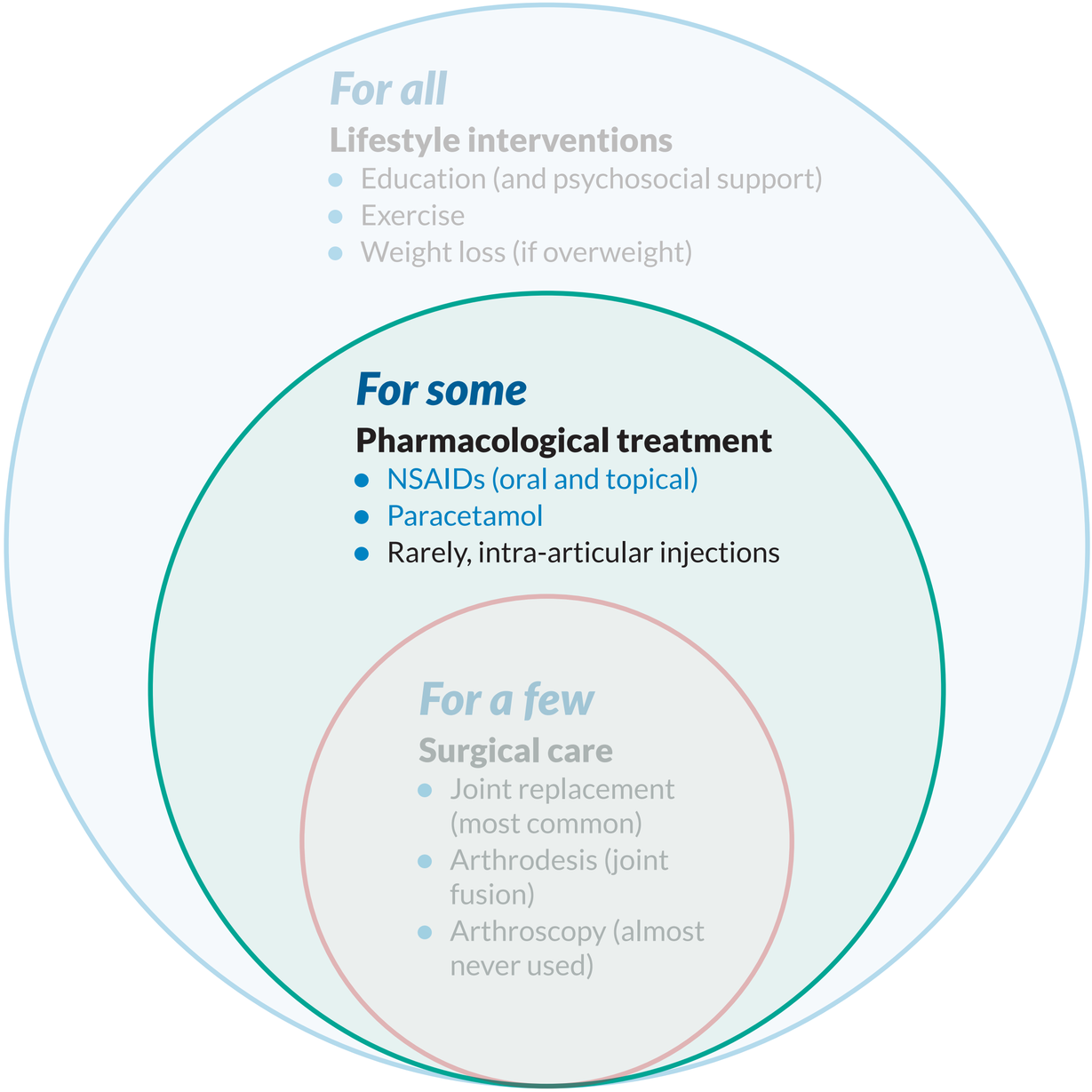
Cognitive behavioural therapy can help patients develop pain coping skills
An example of on online programme that can be recommended for patients is available at: **www.getselfhelp.co.uk/chronicfp.htm**

1. Kolasinski SL, Neogi T, Hochberg MC, *et al*. Arthritis Care Res. 2020;72:149–62..

The OA management hierarchy

Individualisation is key*

– it is a matter of finding which approach works best for the patient in front of you, and for the joint affected



* Ideally, the patient's clinical condition can be maintained or improved with less intense/invasive options, i.e. lifestyle changes; however, more intense/invasive options, i.e. surgery, may inevitably be required for some patients.

NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis

1. Victorian Model of Care for Osteoarthritis of the Hip and Knee. Victorian musculoskeletal clinical leadership group. 2018. Available at: http://www.acsep.org.au/content/Document/MOVE_MoC_WebVersion_WithHyperlinks.pdf (Accessed Feb, 2021); 2. Kolasinski SL, Neogi T, Hochberg MC, *et al.* Arthritis Care Res. 2020;72:149–62.

Medicines for OA symptom relief – *what's first-line?*

Paracetamol used to be first-line – but a recent meta-analysis[1] calls paracetamol's short-term efficacy into question:

> *"…this updated review confirms previous findings that **paracetamol provides minimal, probably clinically unimportant benefits in the immediate and short term** for people with hip or knee osteoarthritis. Moreover, paracetamol does not provide statistically significant or clinically important effects for people with knee osteoarthritis only."*
>
> Leopoldino AO, Machado GC, Ferreira PH, *et al*. Cochrane Database Syst Rev. 2019;2:CD013273

COX-2, cyclooxygenase-2; GI, gastrointestinal; NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis; PPI, proton pump inhibitor.

1. Leopoldino AO, Machado GC, Ferreira PH, *et al*. Cochrane Database Syst Rev. 2019;2:CD013273

Medicines for OA symptom relief – *what's first-line?*

NSAIDs are now recommended in guidelines* as the primary pain reliever for patients with OA

- Once daily, slow release formulations, e.g. naproxen, are often preferred to assist with compliance
- COX-2 inhibitors, e.g. celecoxib, may be more suitable for some patients, e.g. older patients or those with GI issues,
  - However, a PPI can be prescribed with NSAIDs for gastroprotection
- Usually taken orally, but topical formulations may be effective for more "superficial" joints, e.g. hands, knees
  - Consider topical capsaicin as an alternative for some patients with OA that is not responsive to paracetamol and oral NSAIDs are contraindicated (funded with Special Authority)

* **However**, given the lower risk of adverse effects associated with paracetamol, **it may be still be preferred over NSAIDs** (or in addition) **in some patients on a case-by-case basis**, particularly for long-term treatment, e.g. patients on anticoagulants, those with a history of gastrointestinal symptoms in response to NSAIDs, patients already receiving an ACE inhibitor and a diuretic (to avoid the "triple whammy")

COX-2, cyclooxygenase-2; GI, gastrointestinal; NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis; PPI, proton pump inhibitor.

1. Leopoldino AO, Machado GC, Ferreira PH, *et al*. Cochrane Database Syst Rev. 2019;2:CD013273

Medicines for OA symptom relief – *what about the other analgesics?*

In general, **avoid use of opioid medicines**

- Tramadol may be suitable short-term for patients with severe and disabling symptoms, and potentially post-surgery – but certainly not long-term

Patients receiving opioids prior to surgery

- Experience less effective pain relief following surgery
- Have a higher risk of surgical complications and revision surgery
- Are more likely to have persistent post-operative opioid use

Adjuvant analgesics, e.g. pregabalin and gabapentin, are unlikely to have any effect in managing arthritic symptoms and are more suited to patients that clearly have neuropathic pain

NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis.

1. Leopoldino AO, Machado GC, Ferreira PH, *et al*. Cochrane Database Syst Rev. 2019;2:CD013273; 2. Inacio MCS, Hansen C, Pratt NL, *et al*. BMJ Open. 2016;6:e010664; 3. Ben-Ari A, Chansky H, Rozet I. J Bone Joint Surg Am. 2017;99:1–9; 4. Rozell JC, Courtney PM, Dattilo JR, *et al*. J Arthroplasty. 2017;32:2658–62; 5. Ponton R. NZMA. 2018;131:50–4.

Complementary and alternative medicines for OA symptom relief

There is **no substantiated evidence to support the long-term use of supplements**, including chondroitin, glucosamine, fish oil

- If patients ***are not*** taking them already – do not recommend they start
- If they ***are*** taking them already and they claim they are effective *(and can afford them)*, then there is generally no reason to stop – **the "placebo effect" can still be important**

Avoid *Artemisia annua* extract (Arthrem)

- There have been a number of case reports in New Zealand that this is associated with hepatotoxicity

Although there are anecdotal reports of **medicinal cannabis products** providing patients some analgesic benefit in patients with OA, systematic reviews to date have ***not*** found evidence of any clinical benefit

- There is limited evidence that medicinal cannabis products may help patients with chronic pain, but this predominantly relates to neuropathic pain

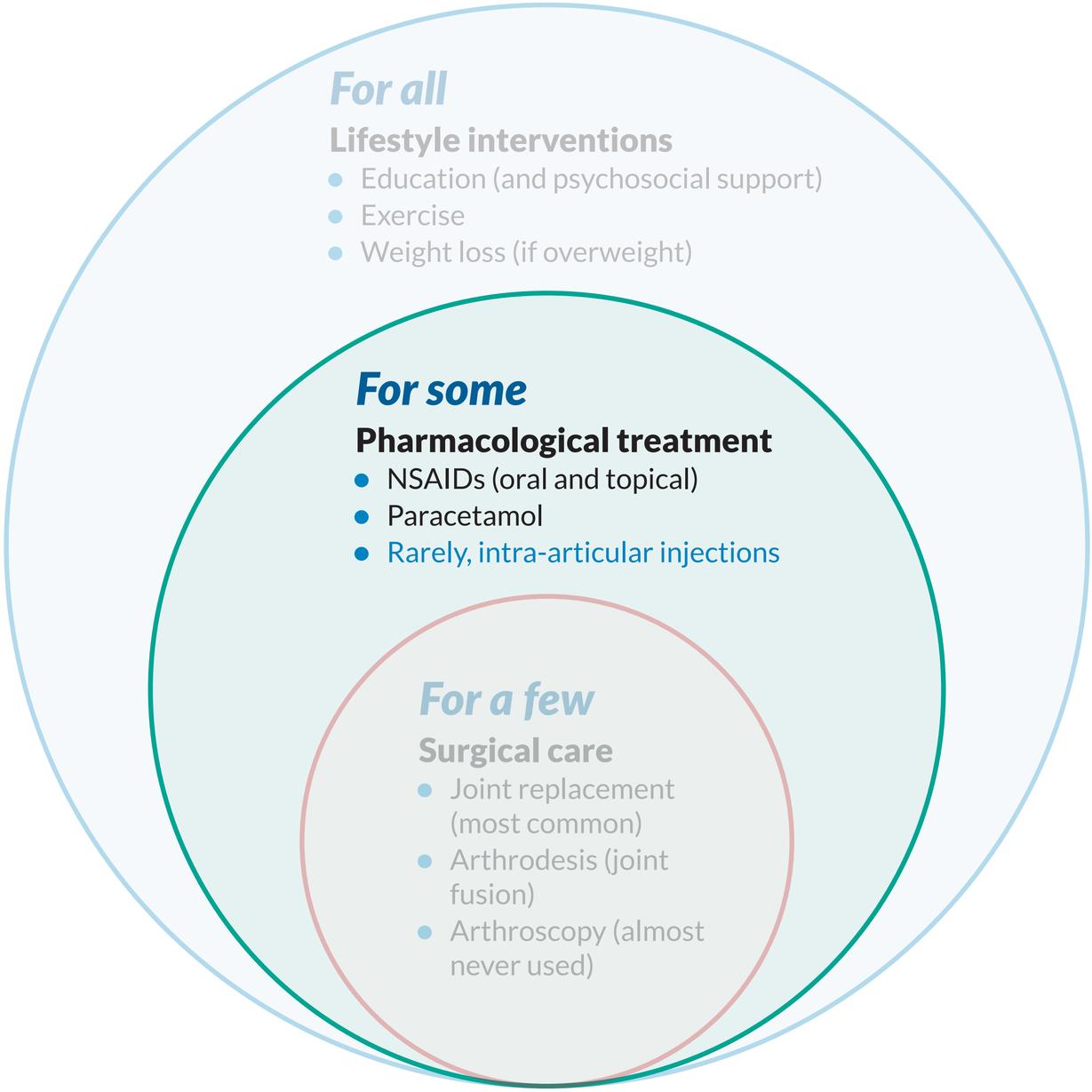
OA, osteoarthritis.

1. Leopoldino AO, Machado GC, Ferreira PH, *et al*. Cochrane Database Syst Rev. 2019;2:CD013273; 2. Alert Communication – *Artemisia annua* (Sweet wormwood, Sweet Annie, Qing hao) extract marketed as Arthrem: risk of harm to the liver – statement under section 98 of the Medicines Act 1981. Medsafe. Available at: https://www.medsafe.govt.nz/safety/EWS/2018/ArthremNov2018.asp (Accessed Feb, 2021).

The OA management hierarchy

Individualisation is key*

– it is a matter of finding which approach works best for the patient in front of you, and for the joint affected



* Ideally, the patient's clinical condition can be maintained or improved with less intense/invasive options, i.e. lifestyle changes; however, more intense/invasive options, i.e. surgery, may inevitably be required for some patients.

NSAIDs, non-steroidal anti-inflammatory drugs; OA, osteoarthritis

1. Victorian Model of Care for Osteoarthritis of the Hip and Knee. Victorian musculoskeletal clinical leadership group. 2018. Available at: http://www.acsep.org.au/content/Document/MOVE_MoC_WebVersion_WithHyperlinks.pdf (Accessed Feb, 2021); 2. Kolasinski SL, Neogi T, Hochberg MC, *et al.* Arthritis Care Res. 2020;72:149–62.

Injections for OA symptom relief – an adjunct to core treatment if required

Corticosteroid injections may be suitable for some joints, for some patients with ongoing symptoms despite other analgesic treatment to help them manage non-operatively for as long as possible (or if surgery cannot be performed), or for flares – **but they are not an essential intervention**

- Patients can progress to surgery without having trialled injections

Short-lived benefit – onset of pain relief may take up to one week and lasts for a maximum of a few weeks/months (but usually only 1–2 weeks)

- **Aim to administer no more than 4 per year (preferably only 1–2)**, if required; excessive intra-articular corticosteroid injections have a toxic effect on articular cartilage (the risk of needing a total joint replacement increases with each injection – Ref #3)

Do not administer intra-articular corticosteroids **within three months prior to surgery**

Hyaluronic acid injections (visco-supplementation) are not recommended

– there is no robust evidence supporting their effectiveness

OA, osteoarthritis.

1. Wernecke C, Braun HJ, Dragoo JL. Orthop J Sports Med. 2015;3:2325967115581163; 2. Kolasinski SL, Neogi T, Hochberg MC, *et al*. Arthritis Care Res. 2020;72:149–162; 3. Wijn SRW, Rovers MM, *et al*. Bone Joint J. 2020;102-B:586–92.