

Welcome to
Pathways in Management
Osteoarthritis and Chronic Low Back Pain



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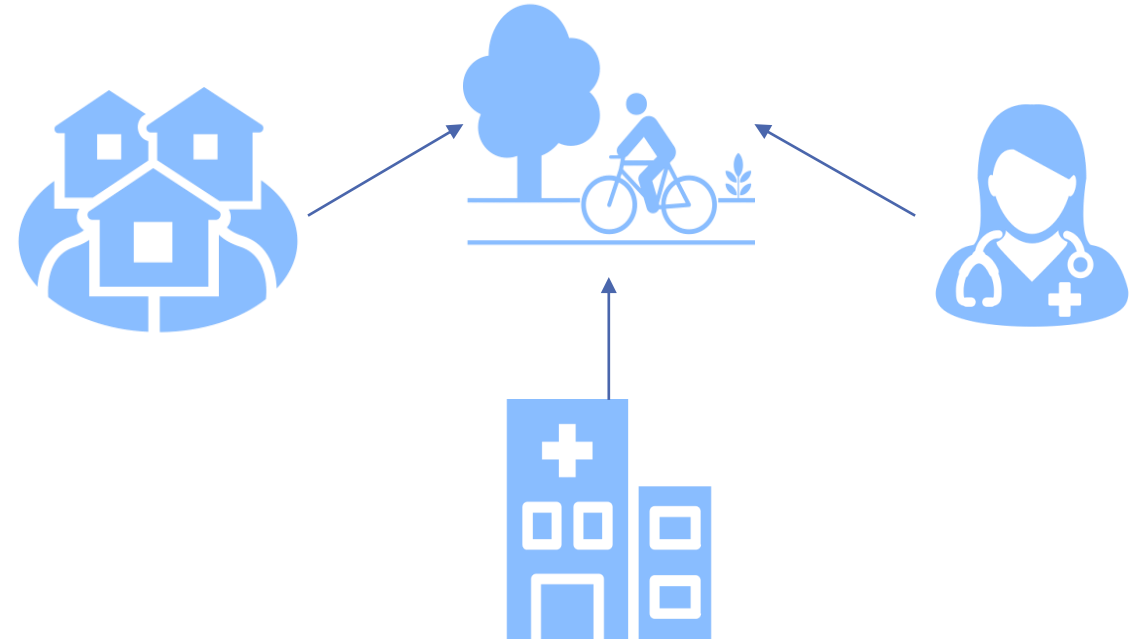
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Our Goal Is To Help You...

- Provide successful strategies and resources for the management of OA and CLBP
- Support the art and science of medicine
- Increase your knowledge and confidence in caring for patients with OA and CLBP
- Support a partnership between clinician and patient



This activity will improve your ability to:

Develop practical strategies to manage pain and improve function for patients with osteoarthritis (OA) and chronic low back pain (CLBP) by:

- Using appropriate assessment, management, and educational tools and resources to support the care of patients with OA and CLBP
- Assessing and implementing the nationally accepted guidelines and standards of care for OA and CLBP
- Describing pathophysiology so patients understand the etiology of their pain and treatment rationale
- Partnering with patients to establish positive and realistic goals of their care

Organization Abbreviations

AAFP	American Academy of Family Physicians
AAOS	American Academy of Orthopaedic Surgeons
ACOEM	American College of Occupational and Environmental Medicine
ACP	American College of Physicians (Internal Medicine)
ACRad	American College of Radiology
ACRheum	American College of Rheumatology
AHRQ	Agency for Healthcare Research and Quality
AOA	American Osteopathic Association
CW	Choosing Wisely

Patient 1: Sue with Knee Pain

- 62-year-old
- Knee OA >3 years
- BMI = 30
- No prescribed medications
- Tried OTC meds, weight management



Patient 2: Juan with Back Pain

- 53-year-old
- CLBP >3 years
- BMI = 39
- Tried OTC meds, weight management
- Pain is interfering with activities at home and work



What do you think when you see patients like Sue and Juan on your schedule?

- How confident are you that you will be able to make a noticeable difference in these patients' pain and function?
- What are your expectations for these patients?
- What do you think the patients' expectations are?

Let's start by reviewing
the components of
a good assessment ...

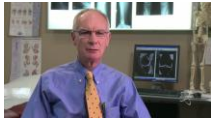
Components of a Good Assessment



- History
- Physical
- Diagnostics
 - Labs
 - Imaging
- Red Flags

Be thorough,
don't assume.

History: Weakness and Functionality

Knee Physical Exam	Back Physical Exam
Redness/swelling Palpate site of pain Effusion Neurologic Identify any significant or abnormal findings	Rash Asymmetry Range of motion Palpate site of pain, check function Neurologic Identify any significant or abnormal findings
Example:  Arthritis Foundation - https://www.youtube.com/watch?v=jubPNt0seOM	Example:  Full Stanford Video Clip: youtube.com/watch?v=q1gX9hORtLY

Functional Assessment

- Becoming standard of care to assess and record a patient's function
- Trackability
- Can assess a wide range of function
- Can be performed by a variety of caregivers

Pain Assessment

- Standard of care
- Trackability

Integrated into EHRs

Assess Function:

Brief Pain Inventory (BPI) Questionnaire

B. Mood	0	1	2	3	4	5	6	7	8	9	10
Does not Interfere											Completely Interferes
C. Walking Ability	0	1	2	3	4	5	6	7	8	9	10
Does not Interfere											Completely Interferes
D. Normal Work (includes both work outside the home and housework)	0	1	2	3	4	5	6	7	8	9	10
Does not Interfere											Completely Interferes
E. Relations with other people	0	1	2	3	4	5	6	7	8	9	10
Does not Interfere											Completely Interferes
F. Sleep	0	1	2	3	4	5	6	7	8	9	10
Does not Interfere											Completely Interferes

Pain Enjoyment General Activity (PEG)

What number best describes your **pain on average** in the past week?

0 1 2 3 4 5 6 7 8 9 10
No pain Pain as bad as you can imagine

What number best describes how, during the past week, pain has interfered with your **enjoyment of life**?

0 1 2 3 4 5 6 7 8 9 10
Completely interferes Does not interfere

What number best describes how, during the past week, pain has interfered with your **general activity**?

0 1 2 3 4 5 6 7 8 9 10
Completely interferes Does not interfere

See Tools!

Screen for Depression and Anxiety



- Depression
 - Multiple tools available including
 - PHQ-9, PHQ-2
 - SIG E CAPS
 - HAM-D
 - CES-D (Center for Epidemiological Studies Depression Scale)
 - Beck Depression Inventory
 - Zung Self Rated Depression Scale
- Anxiety
 - GAD-7
- Somatization

Select the appropriate tools for
your EHR and clinic setting.



One of the “not-to-miss” components of an assessment is identifying red flags in the history or physical.
Let’s review ...

KNEE

INFECTION

- Constitutional symptoms
- Joint swelling/redness and heat
- Persistent fever of more than 3 weeks
- Night pain
- New onset headaches

AUTOIMMUNE DISEASES

- Jaw claudication
- Scalp tenderness
- Significant lethargy
- History of inflammatory bowel disease
- History of uveitis/iritis
- More than one joint involved



See
Tools!

CANCER OF INFECTION

- History of cancer
- Unexplained weight loss
- Immunosuppression
- Urinary infection
- Intravenous drug use
- Prolonged use of corticosteroids
- Back pain not improved with conservative management

BACK

SPINAL FRACTURE

- History of significant trauma
- Fall or lifting in elderly or presence of osteoporosis
- Prolonged use of steroids

CAUDA EQUINA SYNDROME OR SEVERE NEUROLOGIC COMPROMISE

- Acute onset of urinary retention or overflow incontinence
- Loss of anal sphincter tone or fecal incontinence
- Saddle anesthesia
- Motor weakness in lower limbs

Use of imaging is becoming
controversial in my office.
How do I decide when
(and when not to) order?

Knee	Back
Imaging not required to make diagnosis in typical presentations of OA (LoA III-IV)	Imaging should NOT be performed on early evaluations for acute LBP w/o red flag signs (CW)
Use conventional radiography prior to other imaging modalities (LOA III-IV)	Ok to x-ray due to chronicity* of pain, even without red flags (ACRad)
Weight bearing imaging key	“Abnormal” findings are so common they are normal by age 40 (ACOEM)

Art vs. Science

For back pain refer to appropriate use criteria.

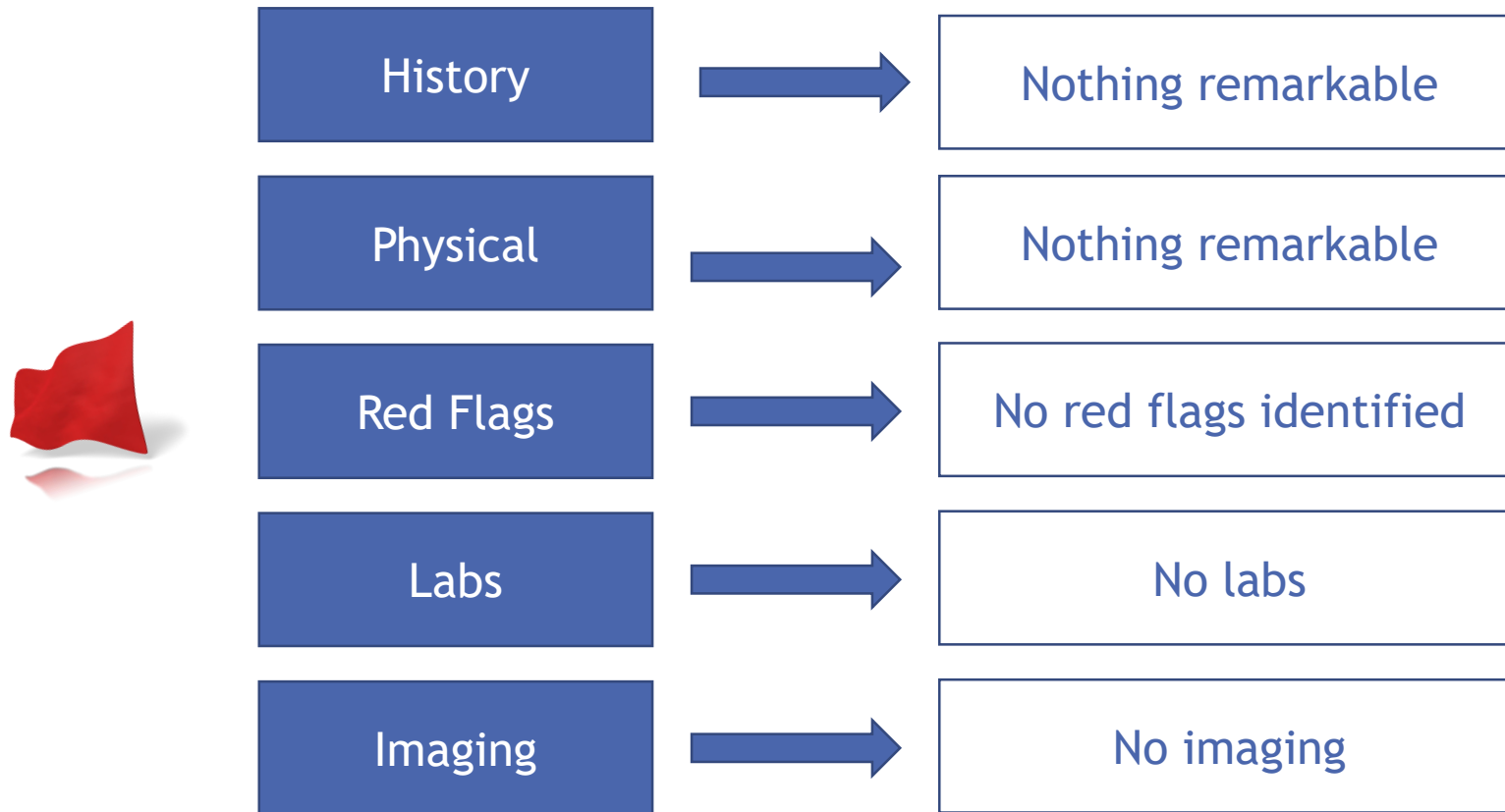
ACRadiology Appropriateness Criteria



Clinical Condition: Low Back Pain
Variant 1: Acute, subacute, or chronic uncomplicated low back pain or radiculopathy.
 No red flags. No prior management.

Radiologic Procedure	Rating	Comments	RRL*
MRI lumbar spine without IV contrast	2		0
X-ray lumbar spine	2		☢☢☢
X-ray myelography and post myelography CT lumbar spine	2		☢☢☢☢
Tc-99m bone scan with SPECT spine	2	If there is concern for spondylolysis in a young patient, SPECT/CT remains the gold standard.	☢☢☢
CT lumbar spine without IV contrast	2		☢☢☢
CT lumbar spine with IV contrast	2		☢☢☢
MRI lumbar spine without and with IV contrast	2		0
CT lumbar spine without and with IV contrast	1		☢☢☢☢
Rating scale: 1,2,3 Usually not appropriate; 4,5, 6 May be appropriate; 7, 8, 9 Usually appropriate.			

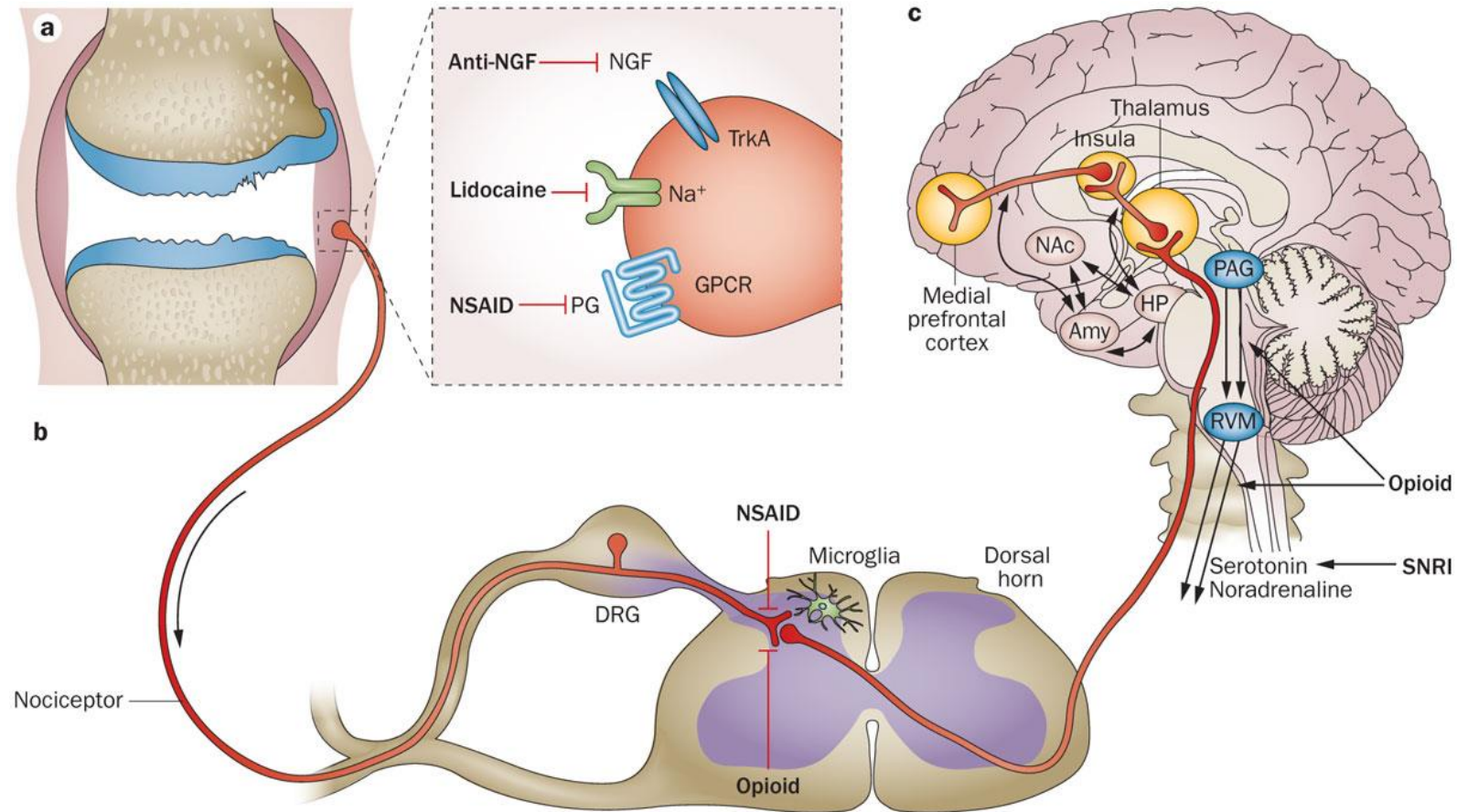
Differential Diagnosis



Record Functional and
Pain Assessment

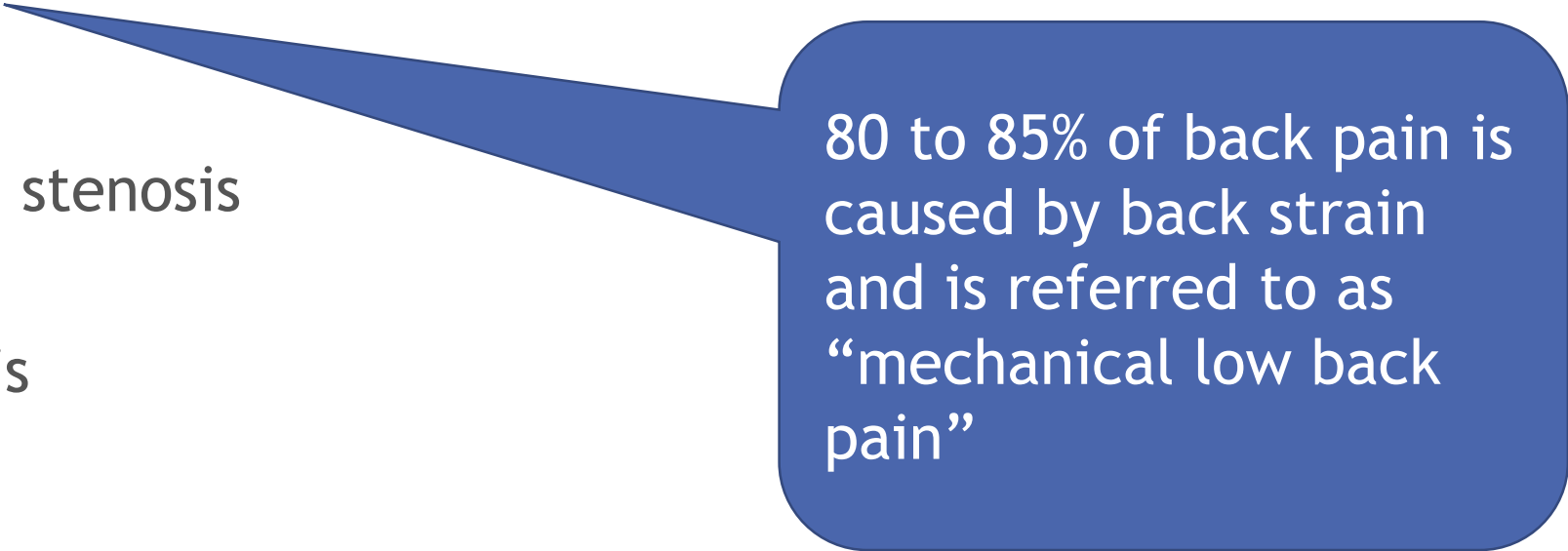
Let's review the pathophysiology
of pain and inflammatory
versus non-inflammatory pain ...

Neuroanatomy of the pain pathway and analgesic targets in OA



Possible Sources of Back Pain

- Back Strain
- Disc herniation
- Osteoarthritis/spinal stenosis
- Spondylolisthesis
- Ankylosing spondylitis
- Infection
- Cancer
- Fracture
- Nonspinal causes: including abdominal aortic aneurism, kidney stone, infection, or stomach ulcer.

A blue callout box with a pointed tail pointing towards the "Back Strain" item in the list. The box contains white text stating that 80 to 85% of back pain is caused by back strain and is referred to as "mechanical low back pain".

80 to 85% of back pain is caused by back strain and is referred to as “mechanical low back pain”

Imaging of the Low Back



Spine Lateral View



Spine Lateral view



Spine AP view

All these patients
have back pain!

Degenerative Disc Disease



Among people over age 60, who do not have back pain, an MRI will find about:

- 9 in 10 have disk degeneration
- 9 in 10 have disk signal loss (desiccation)
- 8 in 10 have disk height loss
- 8 in 10 have a bulging disk
- 4 in 10 have an annular fissure
- 4 in 10 have a disk protrusion
- 4 in 10 have facet degeneration
- 3 in 10 have spondylolisthesis

I know there are multiple
guidelines for OA and CLBP.

What are the most helpful
key points for practice?

What they tell us:

- Commonalities where authorities all agree
- Levels of evidence in recommendations

What they don't tell us:

- The evidence is lacking, and more research is desperately needed (AAOS Knee OA)
- Absence of evidence $\neq$ absence of efficacy
- Controversies (eg, injections for CLBP: evidence vs practice)
- Influence of reimbursement



Organization	Year	Guideline
AAFP	2014	Reference AAOS Guideline
AAOS	2013	Knee non-arthroplasty
ACOEM	2015	Knee algorithm
ACRheum	2012	Recommendations for OA of hand, hip, knee
AHRQ (DHHS)	2017	OA knee
AHRQ (DHHS)	2018	Non-pharma Treatment of Chronic Pain
Choosing Wisely	Various	Selected recommendations

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OA Knee Guideline Example: AHRQ

Interventions Showing Beneficial Outcomes			
Intervention	Evid. Strength	Pain	Function
Low-level Laser Therapies	Low	M	M
Spinal Manipulation	Low	M	S, M
Massage	Mod	S	S
Yoga	Low - Mod	S, M	S, M
Multidisciplinary Rehabilitation	Low - Mod	S, M	S, M
Acupuncture	Low - Mod	S, L	S
Mindfulness-based stress reduction	Low - Mod	S, M	-
Cognitive Behavioral Therapy	Mod	S, M, L	S, M, L
Exercise	Low - Mod	S, M, L	S

Organization	Year	Guideline
AAFP	2017	Adopted ACP guideline
ACOEM	2016	Low Back Disorders (incl. algorithm)
ACP	2017	Low Back Pain
ACRad	2015	Appropriate Use Criteria
AHRQ (DHHS)	2018	Nonpharmacologic Treatment of Chronic Pain
AOA	2016	Osteopathic Manipulation LBP
Choosing Wisely	Various	Selected recommendations

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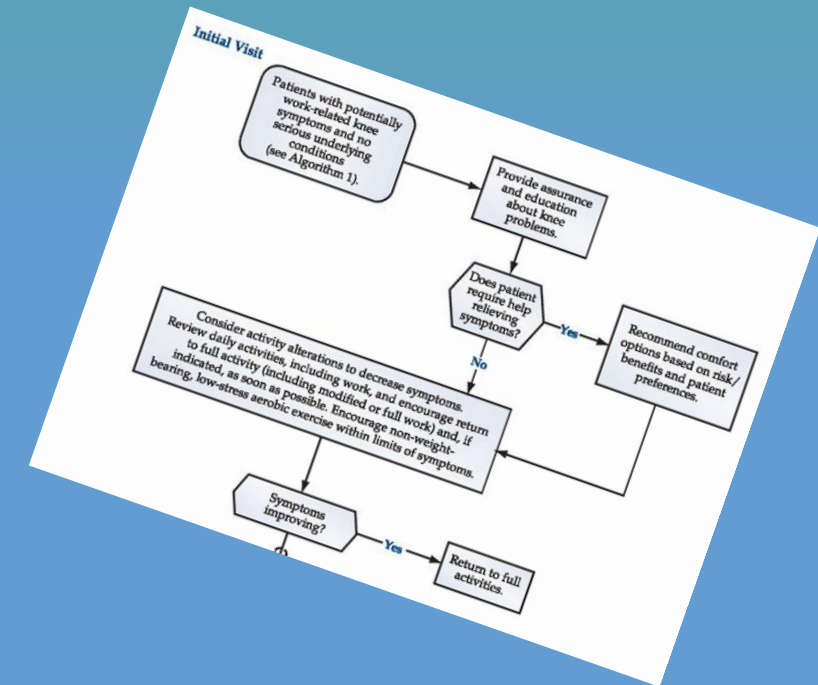
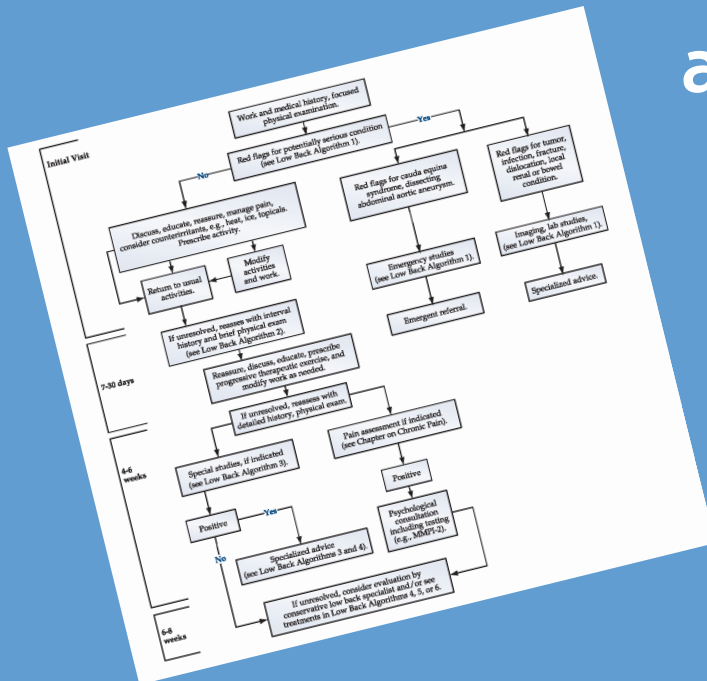
AHRQ=Agency for Healthcare Research and Quality

AOA=American Osteopathic Association

Interventions Showing Beneficial Outcomes			
Intervention	Evid. Strength	Pain	Function
Low-level Laser Therapies	Low	M	M
Spinal Manipulation	Low	S, M	S, M
Massage	Low	M	M
Yoga	Low	S, M	S, M
Qigong	Low	S, M	S, M
Multidisciplinary Rehabilitation	Mod	S, M, L	S, M, L

Short Term (S) 1 to <6 mo
Medium Term (M) >6 mo <12 mo
Long Term (L) >12 mo

Are there any algorithms we can use to guide us as we develop a treatment plan?

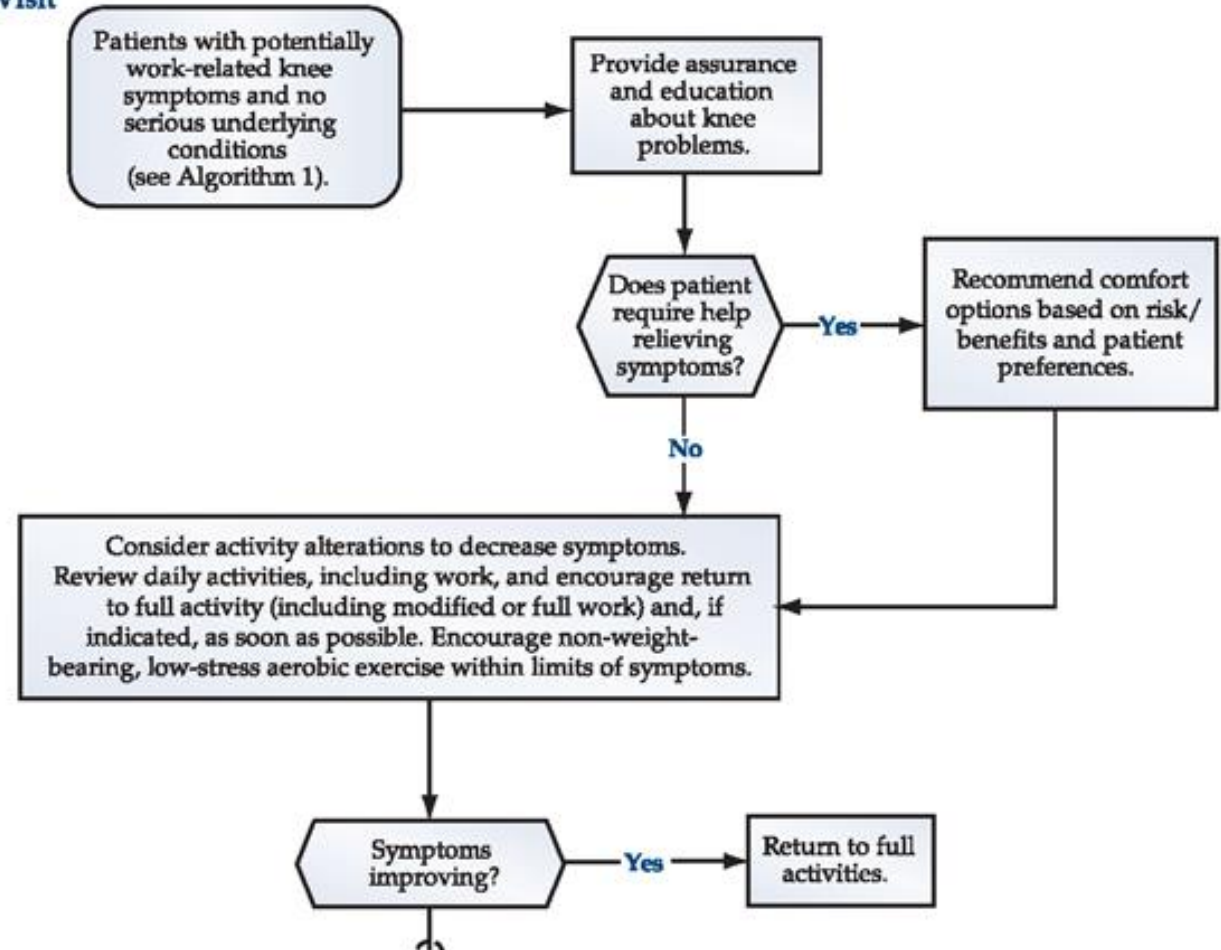


Algorithm Excerpt: Knee OA

ACOEM Recommends:

1. Consider activity modification, weight loss, NSAIDs, acetaminophen
2. Change NSAID
3. Consider viscosupplementation, injections, glucocorticoid injections
4. Consider surgical management, arthroplasty

Initial Visit

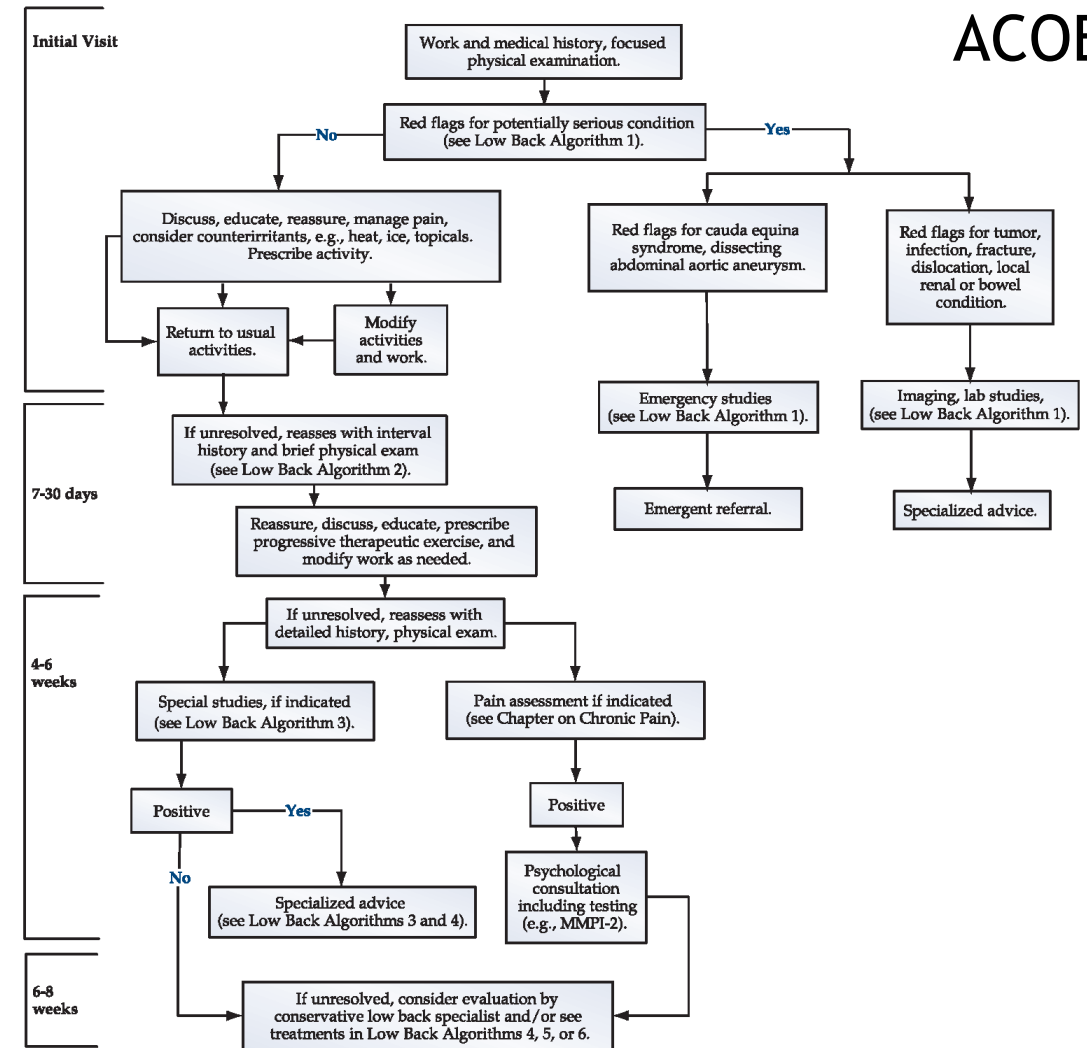


Low Back Algorithm

ACOEM Recommends

1. NSAIDs, topiramate, skeletal muscle relaxants, and carefully considered opioids for short term treatment
2. Consider yoga, spinal manipulative techniques, physical therapy
3. Consider duloxetine, cognitive behavioral therapy, and multidisciplinary rehabilitation
4. Keep Active!
5. Patient education is key!

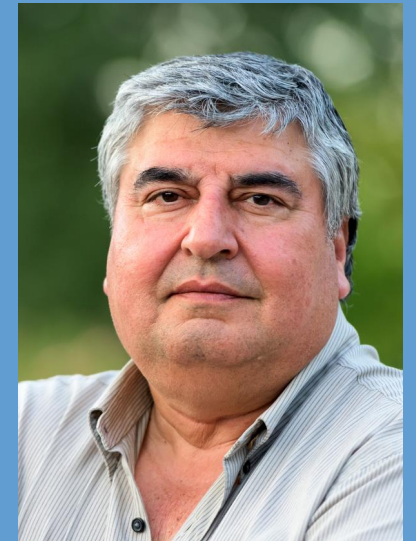
ACOEM





What is my first-line therapy
for pain management?

What's next for Sue and John?



First Line Treatments

Knee	Back
Consider activity modification, weight loss (ACOEM) NSAIDs (ACOEM, ACP)	First line non-pharmacologic: include exercise, cognitive therapy, acupuncture, yoga, biofeedback, manipulation (ACP) Activity: walking program (ACOEM) NSAIDs, acetaminophen

Side effects of NSAIDs including gastrointestinal, renal and cardiovascular toxicity should be considered before prescribing.

The best medication is one the patient will take

Knee	Back
Evidence-based medicine supported NSAIDs, tramadol (AAOS)	If non-pharmacological inadequate, move to pharmacological- NSAIDs first (ACP)
Little evidence for acetaminophen, opioids, topicals (AAOS)	Tramadol or duloxetine after NSAID (ACP)
Some recommendation to start with topicals to minimize GI toxicity (Cochrane)	Do NOT use opiates first (CW)
No recommendation regarding opioid analgesics (ACRheum)	No evidence of benefit for acetaminophen, antiepileptics, TCA (ACP)
No recommendation regarding duloxetine (ACRheum)	

Evidence-based

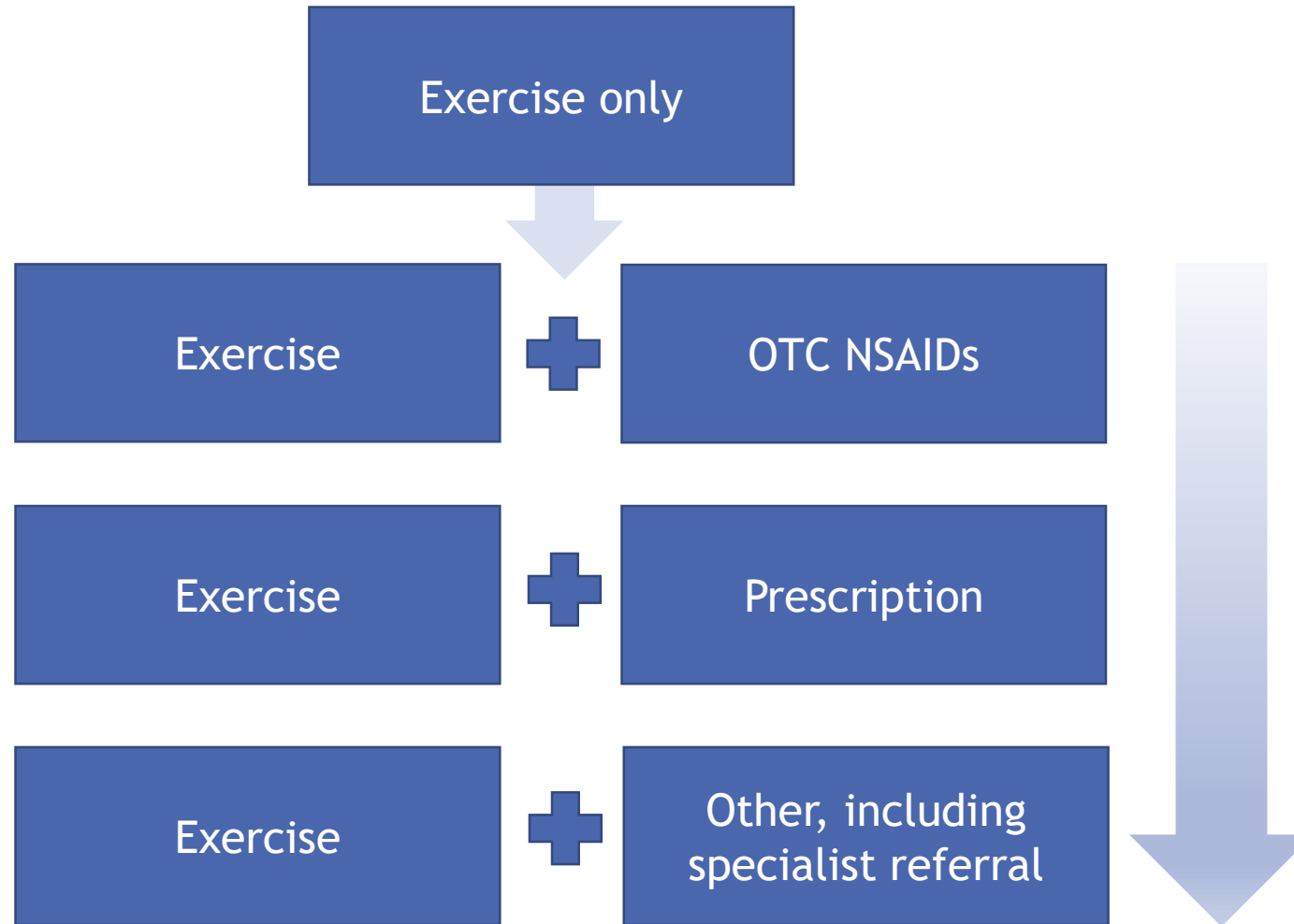
Some Evidence

No Evidence

Knee Injections
Some evidence for steroid injections (AAOS)
No evidence-based value for viscosupplement (hyaluronic acid) injections in improvement of function for moderate to severe knee OA (ACOEEM)
No recommendation for intra-articular hyaluronate injections (ACRheum)

Knee
Either ice or heat can be helpful (ACOEEM)
No recommendation for: • Participation in balance exercises (alone or with strengthening exercises) • Wearing lateral wedged insoles • Receiving manual therapy alone (ACRheum)

Adding Pharmacotherapy





Any recommendations for creating a
better partnership
with my patients with OA and CLBP?



Engaging Sue and Juan

Communication approach

Come alongside

Motivational interviewing

Patient education

Use other professionals in your practice or community?



It's not just about the patients, but also about the clinicians:

Reframe success.

You may not totally fix the problem, but making a difference in some way is success (similar to losing 10% of weight or cutting down on smoking as a start).

Positive approach

- OA (mild and moderate): Function can be improved, pain can be reduced
- Back: Assure the patient that LBP is common, has an excellent prognosis and, in most cases, is not debilitating on a long-term basis (ACOEM)

Patient-provider journey

- Build a therapeutic alliance, partner with and empower patients, work together—takes time and “I’m here for you”, together identify what patients will do for themselves

Use multiple pathways and evidence-based strategies

- Blend science with the “art” of medicine

Target Improved Function

- At least as important as pain rating
- What is achievable?
- Is patient motivated?

Decreased Pain

- Is it realistic?
- If patients have linked the single goal of decreased pain to the goal of happiness, they may be unhappy while pursuing this goal despite other achievements or experiences

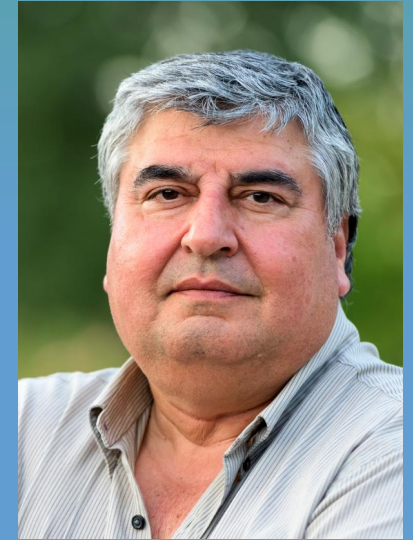
This is a chronic disease. Our goal is to improve function and manage pain so you can meet your goals.

So many options to improve physical
function are available.

Where should I start?



#1: To Improve Function
and Reduce Pain



Just Move!



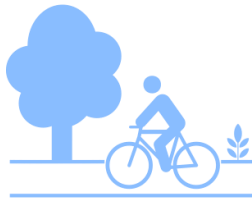
Encourage active treatment plan, avoid prolonged bed rest or passive modalities (CW).



Knee	Back
All patients in a walking exercise program (ACOEM)	Nonpharmacologic should be first line therapy and include exercise (ACP)
Strong recommendation for cardiovascular and/or resistance land-based exercise, aquatic exercise, and weight loss (ACRheum)	Prescribe activity including progressive walking program (ACOEM)
Evidence supports exercise, including PT (AAOS)	
Exercise has beneficial medium/long-term outcomes (AHRQ)	

Personalizing the Plan

Patient



Move
Water Aerobics
Heat and Ice
Knee Braces
Make movement a habit
Core Strengthening

Clinician

Coach patient in behavior change
Prescribe NSAIDS (dosage, topical)
Chronic Disease Management
Prescribe movement

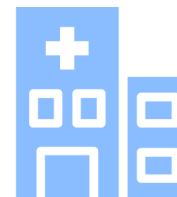


Community-based activities
Silver Sneakers
Mall walking program
Insurance reduction

Community



Use cardiac rehab bikes
List of community resources
Health coach and care coordinators



Clinic

One of my colleagues uses osteopathic manipulation therapy for CLBP.

What exactly is that?
Is there evidence behind its use?



Osteopathic Manipulative Therapy (OMT) is “the therapeutic application of manually guided forces by an osteopathic physician to improve physiologic function and/or support homeostasis that has been altered by somatic dysfunction. OMT employs a variety of techniques.”

In OMT, a DO moves a patient’s muscles and joints using techniques that include stretching, gentle pressure, and resistance.

AOA consensus recommendation:

1. Evidence points in favor of using OMT to treat LBP
2. Greatest benefit appears to be pain control > improvement in functionality

Knee Bracing

Knee sleeves are **controversial**.



Off-loader bracing can be helpful for moderate to severe cases (ACOEM).

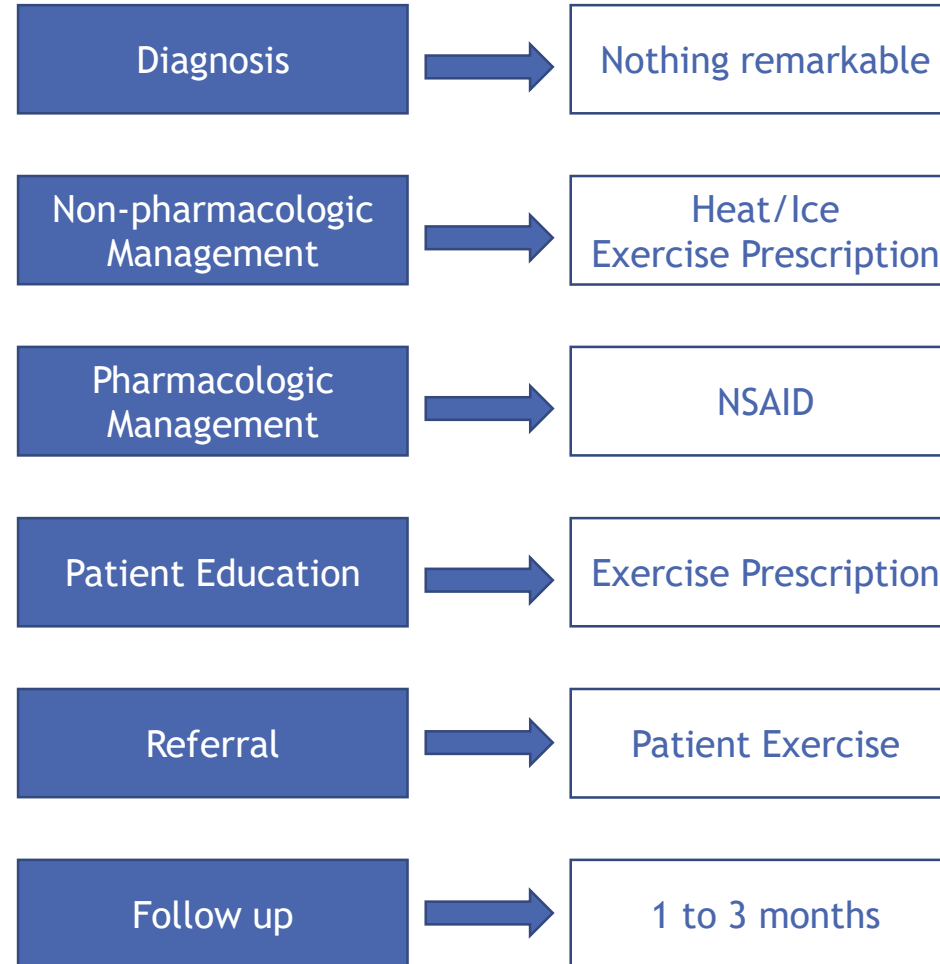


No recommendation for wearing knee braces, or using laterally developed patellar taping (ACRheum).



So, what would be
your treatment plans for
Sue and Juan?

What is your Treatment Plan?



Other Considerations:

How would your treatment plan change if...

Sue (Knee OA)	Juan (Back)
• QoL is more impacted? • Has CVD and diabetes? • Taking care of mom with Alzheimers?	• Has work-related pain? • Is sleep impaired? • Lives on farm 30 miles from town? • Wants to use CBD or medical marijuana?

Engaging Sue and Juan

Communication approach

Come alongside

Motivational interviewing

Patient education

Use other professionals in your practice or community?



It's not just about the patients, but also about the clinicians:

Reframe success.

You may not totally fix the problem, but making a difference in some way is success (similar to losing 10% of weight or cutting down on smoking as a start).

How can I best manage patients
like Sue and Juan in my office?

- You can make a difference in your patient's lives for a condition that may be frustrating (for them AND you!!)
- It's not about eliminating disease, it's about the patient being able *to achieve life goals.*
- Partner with patients to reframe the conversation to focus on function (not pain) and find what motivates them to MOVE!
- Access www.PathwaysInManagement for tools and resources

- These are common conditions: approx 84% of adults experience low back pain within their lifetime and 80% over age 55 exhibit some OA.
- You can make a difference in your patient's lives for a condition that may be frustrating!
- It's not about eliminating disease, it is about the patient being able *to achieve life goals*.
- Build a therapeutic alliance with your patient through regular check-ins, and good problem solving.
- Imaging should be highly selective and not “routine.”
- Keep patients moving.
- Be creative in your recommendations.
- Art and science of medicine.
- Use medications appropriately.

Monday in the Office

- Next 10 patients
- Chart review
 - Implement PEG or another functional assessment
 - Implement exercise prescription
 - Patient education
 - Prescribe McGill back exercises or yoga program
 - Reduce number of patients receiving imaging for uncomplicated back pain (include CW imaging as a tool)

Pathways in Management Osteoarthritis and Chronic Low Back Pain



Pathways in Management
Osteoarthritis and Chronic Low Back Pain



McGill Back Exercises or Yoga Data Collection Sheet

Directions: Look at 10 patient charts and record a "1" in column C if there is documentation of prescribing McGill back exercises or yoga.

A Chart	B Unique Identifier (optional)	C McGill Back Exercises or Yoga documented in the chart? 0=No 1=Yes	D Notes
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Total			

Functional Assessment Data Collection Sheet

charts and record a "1" in column C if there is documentation of a functional assessment. Functional assessments include Brief Pain Inventory (BPI) Questionnaire and "PEG"

C Functional assessment documented in the chart? 0=No 1=Yes	D Notes

Findings to identify gaps in practice and opportunities for further improvement.

Reflect: Review your baseline findings to identify gaps in practice and opportunities for further improvement.
What findings did you expect?

Visit www.PathwaysInManagement.org



PATHWAYS IN MANAGEMENT

Osteoarthritis & Chronic Low Back Pain

CLINICAL TOOLS

Thank you for attending!



Supported by an educational grant from Pfizer/Lilly.

EXERCISE PRESCRIPTION



Evidence based guidelines point to movement as the first line of treatment for chronic pain. Let's find some ways to incorporate more movement into your daily life. Which of the following activities will you do this week to begin moving more?

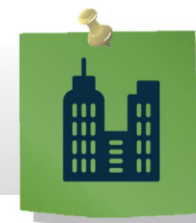


WALKING

- ☐ Start counting your steps with a pedometer or smart phone walking app. Gradually build up to 7,500–10,000 steps daily
- ☐ Go for a 10- to 15- minute walk at lunchtime
- ☐ Volunteer to walk a dog each day
- ☐ Find places in your community to walk & explore
- ☐ Park farther away from the store
- ☐ Get up 20 minutes early for a refreshing walk around the block (or house)
- ☐ Take children/grandchildren for a walk
- ☐ Joints hurt too much to walk? Try water walking in a pool 3- times a week, you don't even have to be able to swim!
- ☐ _____

- ☐ Get up every 30 minutes for a walk down the hallway
- ☐ Have phone conversations standing or walking around
- ☐ Go meet people at their desks or other offices
- ☐ If you can't stand, try foot slides, knee lifts, arm circles, etc.
- ☐ Find lunch or break walking buddies
- ☐ _____

AT WORK



AT HOME & OTHER PLACES

- ☐ Use stairs whenever possible
- ☐ Park farther away to extend your walk
- ☐ Walk & watch that special TV show; get up and walk at every commercial
- ☐ Join a gym with a friend to keep you motivated
- ☐ _____

What I plan to do today to move: _____

Thank you for making this important STEP toward better health!

YOGA FOR YOU



Tools Available at
www.PathwaysInManagement.org

Yoga can reduce pain and disability, and can be practiced safely. Find a yoga practice that is right for you.

Yoga will help improve flexibility, strength, balance, and focus, and should be considered for anyone with osteoarthritis or chronic low back pain.

Look for yoga classes in your community or check the online resources listed below.



YOGA SESH offers alignment-focused Vinyasa Yoga and Yin Yoga classes by Caitlin Rose Kenny available on iTunes and SoundCloud. Each session offers a unique sequence of asana, breath work, and stillness.

Yoga by Candace offers free yoga videos for all levels. The 15 minute morning yoga provides beginners with an easy to follow poses and meditations. More advanced yogis can build endurance and strength.

<https://www.youtube.com/user/YOGABYCANDACE>



A resource for chair yoga can be found at <https://yogawithadriene.com/chair-yoga/>

REMINDE

- ✓ Start with short videos – try chair yoga
- ✓ Find a regular time to practice
- ✓ Call your clinic if you experience sharp pain
- ✓ Keep a log and record the days you do yoga
- ✓ Low cost and easy to do at home

McGill Exercises



McGill exercises, developed by Dr. Stuart McGill Professor Emeritus of Spine Biomechanics at the University of Waterloo, have provided relief from their low-back pain. Dr. McGill's core and low-back endurance exercises promote spine stability.

These three exercises do not take much time, are fairly simple to do, and numerous video tutorials are available online. See sample links below.

Tools Available at
www.PathwaysInManagement.org



BIRD DOG

The purpose of the bird dog is to activate the extensor muscle chain and move limbs while stabilizing the spine.

CRUNCH

The purpose of the crunch is to engage the abdominal muscles without increasing disc compression forces in the lumbar spine. Do not flatter the low back to the floor, instead place your hands under your lumbar region for support (to keep a neutral spine position) and produce a roll up motion from the thoracic spine region.



SIDE PLANK

The purpose of the side plank is to activate your spinal stabilizers to maintain a neutral spine then activate the torso muscles to initiate and hold the position. This can also be done with bent knees.

Resources for McGill exercises can be found at:

<https://vimeopro.com/ergorisk/core-activation-exercises/video/25438427>
<https://www.youtube.com/watch?v=S8VFbkSjCsQ>

SPICE: RETURN TO WORK PLAN

S

Simplicity: Communicate the return to work plan using easy to understand terminology. Complex language can be incorrectly interpreted.

P

Proximity: Keeping the worker within the workplace improves outcomes as they return to their routine and social work patterns.

I

Immediacy: Timely action minimizes worse outcomes

C

Centrality: Coordinate care through a central health care provider.

E

Expectancy: Set appropriate treatment and improvement goals and expectations with the patient to improve adherence.



DO'S

- ✓ Focus on function
- ✓ Write prescription for transitional duty
- ✓ Base prescription upon objectively verifiable examination findings
- ✓ Avoid prescribing light duty. Instead, be specific about activities that are allowed



DON'TS

- ✓ Rarely necessary to restrict anyone with low back pain to less than 20 pounds material handling
- ✓ Avoid basing restrictions only on pain

Tools Available at
www.PathwaysInManagement.org

Tools Available at
www.PathwaysInManagement.org

The **Brief Pain Inventory (BPI)** is a short, “user-friendly” self-administered, practical questionnaire that is in many languages and has been validated for cancer pain and non-cancer pain. The BPI assesses pain location, intensity, and pattern as well as patient beliefs and the impact of pain on the patient’s quality of life.

Long form:

http://www.npcrc.org/files/news/brief_pain_long.pdf

Short Form:

http://www.npcrc.org/files/news/brief_pain_short.pdf

B. Mood										
0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes
C. Walking Ability										
0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes
D. Normal Work (includes both work outside the home and housework)										
0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes
E. Relations with other people										
0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes
F. Sleep										
0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

What number best describes your pain on average in the past week?										
0	1	2	3	4	5	6	7	8	9	10
No pain										Pain as bad as you can imagine
What number best describes how, during the past week, pain has interfered with your enjoyment of life ?										
0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely interferes
What number best describes how, during the past week, pain has interfered with your general activity ?										
0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely interferes

The **PEG** tool is a functional assessment tool validated in primary care clinics to get a quick snapshot of the effect on pain on the patient’s function with the advantage it is quick and easy to score and follow. Tool:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2686775/figure/Fig1/>

The **Oswestry Disability Index** is an index derived from the Oswestry Low Back Pain Questionnaire to quantify disability for low back pain. The tool can be found at <https://eprovide.mapi-trust.org/instruments/oswestry-disability-index>

WRITING A PHYSICAL THERAPY OR OTHER REFERRAL ORDER



Tools Available at
www.PathwaysInManagement.org



Communicate

- the exact diagnosis so the therapist can identify the appropriate approach to improve function.

Include

- specific deficits that you have found on your examination that you wish to have the physical therapist improve upon; examples are range of motion or gait deficits.
- instructions to exercise for tolerance and improvement of endurance.
- Weight loss goals so that a safe cardiovascular exercise protocol is addressed.

Set

- appropriate expectations with your patients prior to their appointment. Therapists may begin with bicycle or aquatic activities as patients may not immediately tolerate walking or treadmill work.

The goal of therapy is to establish activities that the patient can complete on their own. Most evidence-based medical guidelines suggest 4-6 visits is plenty.....some would even say less.



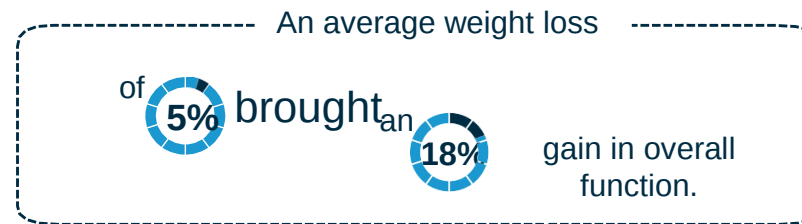
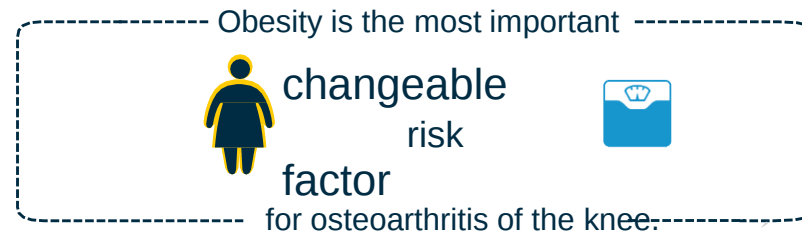
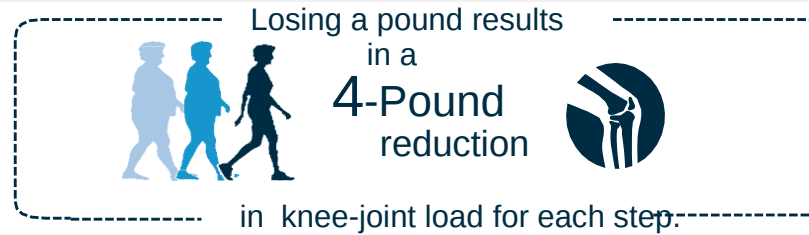
COMMON ITEMS TO INCLUDE IN A REFERRAL

- | | |
|---------------------------|--|
| ✓ Improve range of motion | ✓ Improvement of endurance |
| ✓ Improve gait | ✓ Weight loss |
| ✓ Exercise tolerance | ✓ Improve function not concentrate on cure |

OSTEOARTHRITIS & BENEFITS OF WEIGHT LOSS



Tools Available at
www.PathwaysInManagement.org



Source: Stephen P. Messier, David J. Gutekunst, Cralen Davis, and Paul DeVita, Weight loss reduces knee-joint loads in overweight and obese older adults with knee osteoarthritis, American College of Rheumatology, Vol 52, No.7, July 2005, pp 2026-2032.

RED FLAGS

KNEE PAIN

Constitutional symptoms
Joint swelling/redness and heat
Persistent fever of more than 3 weeks
Night pain
New onset headaches

Infection



Jaw claudication
Scalp tenderness
Significant lethargy
History of inflammatory bowel disease
History of uveitis/iritis
More than one joint involved

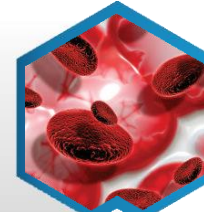
Autoimmune Diseases



CHRONIC LOW BACK PAIN

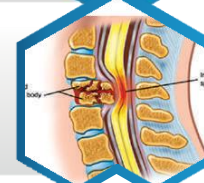
History of cancer
Unexplained weight loss
Immunosuppression
Urinary infection
Intravenous drug use
Prolonged use of corticosteroids
Back pain not improved with conservative management

Cancer or Infection



History of significant trauma
Fall or lifting in elderly or presence of osteoporosis
Prolonged use of steroids

Spinal Fracture



Acute onset of urinary retention or overflow
Incontinence
Loss of anal sphincter tone or fecal incontinence
Saddle anesthesia
Motor weakness in lower limbs

Cauda Equine Syndrome or Severe Neurologic Compression



Tools Available at
www.PathwaysInManagement.org

Tools Available at
www.PathwaysInManagement.org

MEDICATION

KNEE

- ✓ Evidence-based medicine supported NSAIDs, tramadol (AAOS)
- ✓ Little evidence for acetaminophen, opioids, topicals (AAOS)
- ✓ Some recommendation to start with topicals to minimize GI toxicity (Cochrane)
- ✓ No recommendation regarding opioid analgesics (ACRheum)
- ✓ No recommendation regarding duloxetine (ACRheum)

BACK

- ✓ If non-pharmacological inadequate, move to pharmacological- NSAIDs first (ACP)
- ✓ Tramadol or duloxetine after NSAID (ACP)
- ✓ Do NOT use opiates first (CW)
- ✓ No evidence of benefit for acetaminophen, antiepileptics, TCA (ACP)

MOVEMENT

KNEE

- ✓ All patients in a walking exercise program (ACOEM)
 - ✓ Strong recommendation for cardiovascular and/or resistance land-based exercise, aquatic exercise, and weight loss (ACRheum)
 - ✓ Evidence supports exercise, including PT (AAOS)
- Exercise has beneficial medium/long-term outcomes (AHRQ)

BACK

- ✓ Nonpharmacologic should be first line therapy and include exercise (ACP)
- ✓ Prescribe activity including progressive walking program (ACOEM)

KNEE INJECTION

- ✓ Some evidence for steroid injections (AAOS)
- ✓ No evidence-based value for viscosupplement (hyaluronic acid) injections in improvement of function for moderate to severe knee OA (ACOEM)
- ✓ No recommendation for intra-articular hyaluronate injections (ACRheum)

BACK

M54.40	Lumbago with sciatica, unspecified side
M54.41	Lumbago with sciatica, right side
M54.42	Lumbago with sciatica, left side
M54.5	Low back pain
M54.9	Dorsalgia, unspecified

KNEE

M17.31	Unilateral post-traumatic osteoarthritis, right knee
M17.32	Unilateral post-traumatic osteoarthritis, left knee
M17.4	Other bilateral secondary osteoarthritis of knee
M17.5	Other unilateral secondary osteoarthritis of knee
M17.9	Osteoarthritis of knee, unspecified

M17.0	Bilateral primary osteoarthritis of knee
M17.10	Unilateral primary osteoarthritis, unspecified knee
M17.11	Unilateral primary osteoarthritis, right knee
M17.12	Unilateral primary osteoarthritis, left knee
M17.2	Bilateral post-traumatic osteoarthritis of knee
M17.30	Unilateral post-traumatic osteoarthritis, unspecified knee
M17.31	Unilateral post-traumatic osteoarthritis, right knee
M17.32	Unilateral post-traumatic osteoarthritis, left knee

Tools Available at
www.PathwaysInManagement.org