

THE UNIVERSITY OF BRITISH COLUMBIA

Department of Orthopaedics Faculty of Medicine





2024 Dine and Learn

Tips, Pearls, and Practice

March 11, 2024 | Dr. Catherine O'Brien MD, FRCSC, Dip. Sport Med (CASEM)



Faculty/Presenter Disclosure

Faculty: Dr. Catherine O'Brien



Relationships with financial sponsors:

 No direct financial relationships, memberships on advisory boards, patents for drugs or devices, nor financial relationships

Disclosure of Financial Support

This program has received financial support from no one. This program has received in-kind support from no one.



Potential for conflict(s) of interest:

• Dr.O'Brien has NOT received funding from an organization supporting this program <u>AND/OR</u> organization whose product(s) are being discussed in this program.

• RebalanceMD is the clinic I work out of (and pay overhead to). As part of a comprehensive musculoskeletal approach model, it also has an on-site orthotics and bracing department, physiotherapy practice, and sells various injectables frequently used in managing joint pain issues

Mitigating Potential Bias

 I receive no direct benefits if patients choose to utilize the resources built into the "all-things-msk" approach that RebalanceMD has set up, and similarly, patients are may choose whether to access the resources there or at any other location without issue or consequence



Learning Objectives

- a. Review the relevance of appropriate shoulder assessment and management.
- b. Discuss key features on history and red flags
- c. Discuss and clarify best practice examination elements
- d. Discuss the appropriate use of imaging.
- e. Explore possible care pathways through an expert panel algorithm



Cases:

- 19 yo patient with first-time anterior shoulder dislocation after contact event playing hockey
 - When to refer for surgical stabilization?
- 71 yo patient with shoulder pain and a rotator cuff tear
 - What is tendinopathy?
 - Are all tears equivalent? Do they all need surgery?
 - Is the tear causing the pain?
- 50 yo patient with shoulder pain and stiffness?
 - Sorting out OA from adhesive capsulitis
 - What is the role for injections?
- 43 yo patient with posterior shoulder pain with numbness and tingling
 - Distinguishing shoulder pathology from referred pain source



Shoulder pain is common

25% of presentations to primary care were for MSK complaints, with the shoulder being the third most common amongst those



Prevalence and characteristics of musculoskeletal complaints in primary care: an analysis from the population level and analysis reporting (POLAR) database. Haas R, Gorelik A, Busija L, O'Connor D, Pearce C, Mazza D, Buchbinder R.*BMC Prim Care*. 2023 Feb 4;24(1):40. PMID: 36739379.

The incidence and management of shoulder complaints in general practice: a retrospective cohort study. [attached] van Doorn PF, de Schepper EIT, Rozendaal RM, Ottenheijm RPG, van der Lei J, Bindels PJ, Schiphof D. *Fam Pract*. 2021 Sep 25;38(5):582-8. PMID: 33860787.

• Shoulder pain is one of the most frequent symptoms reported by patients seeing primary care (36%)

Patients in general practice share a common pattern of symptoms that is partly independent of the diagnosis. Kjeldsberg M, Tschudi-Madsen H, Mdala I, Bruusgaard D, Natvig B. Scand J Prim Health Care. 2021 Jun;39(2):184-93. PMID: 33905284.

BMC Family Practice

RESEARCH

Open Access

Consensus for a primary care clinical decision-making tool for assessing, diagnosing, and managing shoulder pain in Alberta, Canada



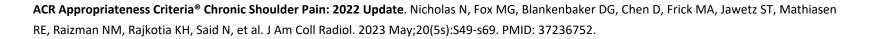
Breda H. F. Eubank^{1*}, Sebastian W. Lackey², Mel Slomp³, Jason R. Werle^{4,5}, Colleen Kuntze^{4,6} and David M. Sheps^{4,7,8,9}

Final clinical decision-making tool =

- 17 screening and diagnostic questions,
- 9 physical examination components,
- 5 red-flag presentations, 4 presentations requiring alternative pathways
- 3 care pathways for management:
 - Rotator cuff/proximal biceps/labral tear
 - Adhesive capsulitis/Osteoarthritis
 - **Shoulder instability**

"shoulder region pain"

 Potential pain generators include the rotator cuff tendons, biceps tendon, labrum, glenohumeral articular cartilage, acromioclavicular joint, bones, suprascapular and axillary nerves, and the joint capsule/synovium



• Referred pain



Red Flags on initial assessment

- 1. Fracture
- 2. Unreduced dislocation
- 3. Infection or septic arthritis
- 4. Tumour
- 5. Large/massive ACUTE traumatic rotator cuff tear
 - pseudoparalysis (unable to lift arm to 90 degrees)



J Am Coll Radiol 2023;20:S49-S69. Copyright © 2023 American College of Radiology

ACR Appropriateness Criteria[®] Chronic Shoulder Pain: 2022 Update. Variants 1 to 8 and Tables 1 and 2.



Variant 1. Chronic shoulder pain. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
Radiography shoulder	Usually Appropriate	•
US shoulder	May Be Appropriate	0
Image-guided anesthetic +/- corticosteroid injection shoulder or surrounding structures	Usually Not Appropriate	Varies
MR arthrography shoulder	Usually Not Appropriate	0
MRI shoulder without and with IV contrast	Usually Not Appropriate	0
MRI shoulder without IV contrast	Usually Not Appropriate	0

The literature suggests that **radiographic evaluation should generally be the first imaging** study ordered in patients with shoulder pain



Some practitioners may use ultrasound (US) as an initial imaging study when rotator cuff disease/impingement is suggested by the clinical examination.

ACR Appropriateness Criteria[®] Chronic Shoulder Pain: 2022 Update. Nicholas N, Fox MG, Blankenbaker DG, Chen D, Frick MA, Jawetz ST, Mathiasen RE, Raizman NM, Rajkotia KH, Said N, et al. J Am Coll Radiol. 2023 May;20(5s):S49-s69. PMID: 37236752.

Key messages

- Shoulder pain can be complicated!



- Tissue pathology does not necessarily equal pain source

 Literature offers some compelling ideals in terms of algorithms, pathways, and timing benchmarks; realities of working in a system in crisis may vary



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Workshop Outline – 25 minutes

Shoulder Pain Assessment (15 min) Questions and Discussion (10 min)

