



THE UNIVERSITY OF BRITISH COLUMBIA

Department of Orthopaedics
Faculty of Medicine

Rebalance^{MD} 

Shoulder Pain- Assessment and Management -

2024 Dine and Learn

Tips, Pearls, and Practice

March 11, 2024 |

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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** AND/OR **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.



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



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.

- 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)



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



UBCORTHO

Variant 1. Chronic shoulder pain. Initial imaging.

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

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)

